



LOS ANGELES COUNTY TRANSPORTATION COMMISSION  
FY 1986 TRIENNIAL PERFORMANCE AUDITS

DETAILED COST GROWTH EVALUATION

FINAL REPORT

OCTOBER 3, 1986

SCR TD  
1986  
.F91

*Price Waterhouse*



October 3, 1986

Mrs. Sharon Neely  
Manager, Transit Programs  
Los Angeles County Transportation  
Commission  
403 West Eighth Street, Suite 500  
Los Angeles, CA 90014

Dear Mrs. Neely:

Enclosed please find the results of a detailed review of cost growth among the three largest transit operators in Los Angeles County -- the Southern California Rapid Transit District (SCRTD), Long Beach Transit (LBT) and Santa Monica Municipal Bus Lines (SMMBL) -- over the period FY 1982 to FY 1985. As outlined in the original scope of work, the review is analytical in nature, seeking to present factual information on cost growth trends over the period. While a number of alternatives for measuring transit operator cost growth for Transit Performance Measurement (TPM) purposes -- proposed by the Los Angeles County Transportation Commission (LACTC) and the operators -- are evaluated, no attempt is made to develop recommendations as to how LACTC should calculate cost growth.

We sincerely appreciate the assistance that you and your staff have provided us in the preparation of this document.

Very truly yours,

*Price Waterhouse*

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Enclosures

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**EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

The Los Angeles County Transportation Commission (LACTC) authorized Price Waterhouse to conduct a detailed analysis of transit operator cost growth in Los Angeles County over the period FY 1982-85. The impetus for the review is to analyze the Transit Performance Measurement (TPM) Program, under which the Commission assesses penalties on County operators based on the growth in total operating costs compared to the local Consumer Price Index (CPI). Currently, all but the most expensive operator is assessed a penalty if cost growth exceeds the rate of inflation plus ten percent in a given year. In the case of the most expensive operator, the ten percent margin of grace above the CPI is not applied. The purpose of the review is analytical -- to present factual information on cost growth trends over the period. No attempt is made to develop recommendations as to how LACTC should measure transit operator cost growth, or whether performance in this area should have a financial impact on operators. Rather, a number of alternative strategies are outlined -- as proposed by LACTC and some operators -- and their effects on the TPM program (on the basis of experience over the FY 1982-85 period) are noted.

The primary vehicle for the analysis is an allocation of costs -- by individual expense item from the annual UMTA Section 15 Report -- to one of three categories based on the degree to which management has the ability to control cost growth in the item. The three categories are high, moderate and low cost control. Low cost control items are those which management can only impact to a limited degree as they are either legally specified (e.g., taxes, unemployment insurance, FICA, some worker's compensation costs) or broad-based market commodities with little negotiation opportunity (e.g., utilities, fuel, lubricants and casualty and liability insurance). The primary means of influence management has over cost growth in low control areas is in the amount of the

good or service consumed. Moderate cost control items are goods and services which management has to purchase from the market place -- albeit the market place is specialized toward transit (e.g., bus parts and special services). For moderate control areas, the type, quality, quantity and purchase arrangements are subject to moderate influence by management. High cost control items include wages, salaries and negotiated fringe benefits which management influences in terms of the number of employees, the type of staff, and the amount paid. While the external market has some influence on overall wage rates, management still has a relatively high degree of control over this cost category. All individual line item expenses are divided by vehicle service hours (a measure of transit output) so as to provide a valid cost comparison.

Typically high cost control items represent between 60 and 75 percent of the operating budget, moderate cost items represent from 7 to 17 percent, and low cost items represent approximately 20 percent. Over the period FY 1982-85, average growth in high and moderate cost control items exceeded that for low cost control items, for the three Los Angeles County operators reviewed -- the Southern California Rapid Transit District (SCRTD), Long Beach Transit (LBT) and the Santa Monica Municipal Bus Lines (SMMBL). SCRTD's high cost control items for example, grew almost 30 percent in absolute terms, while its moderate cost items grew 15.5 percent and its low cost items grew 14.9 percent, as shown in Exhibit 1. A similar trend was noted for a majority of the large operators nationwide that were reviewed -- New York's MTA, Chicago's CTA, Washington's WMATA and San Francisco's Muni.

On a systemwide basis, cost growth for all three Los Angeles County operators was broadly comparable (i.e., between 23 and 29 percent in absolute terms), as it was for the motor bus operations of the large operators nationwide, with the exception of Muni.

COMPARISON OF RATE OF GROWTH IN EXPENSES  
BY DEGREE OF MANAGEMENT CONTROL

<u>OPERATOR</u>	<u>DEGREE OF MANAGEMENT CONTROL</u>		
	<u>HIGH</u>	<u>MODERATE</u>	<u>LOW</u>
<hr/>			
SCRTD:			
Percentage of Total Expenses	68.6%	9.1%	22.3%
Rate of Growth (FY82-85)	29.8%	15.5%	14.9%
Systemwide Growth Rate:	24.8%		
Inflation Rate:	7.3%		
<hr/>			
LBT:			
Percentage of Total Expenses	71.2%	11.8%	17.0%
Rate of Growth (FY82-85)	37.7%	31.9%	(16.0)%
Systemwide Growth Rate:	23.6%		
Inflation Rate:	7.3%		
<hr/>			
SMMBL:			
Percentage of Total Expenses	60.9%	17.4%	21.7%
Rate of Growth (FY82-85)	25.7%	73.8%	13.7%
Systemwide Growth Rate:	29.0%		
Inflation Rate:	7.3%		
<hr/>			



The primary expense items tending to increase the overall system-wide cost growth were -- in the case of the Los Angeles County operators -- general administration wages, salaries and negotiated benefits and vehicle operators negotiated benefits (all controllable to a high degree by management), and mandatory benefits (over which management has little or no control). SCRTD's general administration wages and salaries grew 47 percent in real terms over the period, and its negotiated fringe benefits grew 87 percent. Between them, these items accounted for 9.7 percent of the operator's total FY85 expenses. Vehicle operations negotiated benefits -- 12 percent of total expenses -- grew 51 percent, as did mandatory benefits. In the case of LBT, non-operator wages and salaries in the vehicle operations function (which represented almost four percent of total expenses in FY 1985) increased by 97 percent over the period, thus increasing total cost growth.

The primary factors tending to reduce average systemwide cost growth were operators' wages and salaries -- an expense item over which management has a relatively high degree of control and which represents the single largest expense item -- 25 percent of total in the case of SCRTD and 34 percent in the case of both LBT and SMMBL. The growth rate in operators' wages and salaries was just over 17 percent in absolute terms for each of the Los Angeles County operators over the period, equivalent to approximately 10 percent in real terms (i.e., net of inflation). A second item that provided strong downward pressure on cost growth was fuel and lubricants expense (an expense item over which management has little control). This expense actually declined between 13 and 24 percent among Los Angeles County operators over the FY 1982-85 period. This item represented 7.5 percent of total operating expenses on average in FY 1985. In addition, in the case of SCRTD, vehicle maintenance wages and salaries provided a downward push to the overall growth in costs, as did vehicle maintenance materials and supplies. Casualty and liability expense -- over which management has little control --

also helped to push down total cost growth in the case of SCRTD and LBT, but provided upward pressure on SMMBL's cost growth. This expense represented 6.5 percent of SCRTD's total expenses in FY 1986.

The cost growth results were compared to three alternative TPM cost growth performance measures, as suggested by LACTC and some operators. These include:

- o Preserving the current method of evaluating cost growth for the TPM program.
- o Excluding all low cost control items, as defined in this report, from the annual TPM cost growth calculation.
- o Increasing the ten percent grace currently allowed over the CPI-W to a higher percentage and applying it to all operators.

Preserving the current methodology for calculating the cost growth per vehicle hour of service would not have any beneficial impact on the three operators examined for any year over the review period. The cost growth for SCRTD, LBT and SMMBL exceeds both the CPI and the grace allowance for each of FY83, FY84 and FY85.

Excluding all low cost control items from TPM calculation would have a net disbenefit for all three operators over the study period (as shown in Exhibit 2). The low cost control expenditures experienced the lowest overall cost growth for all three operators over the study period. The net result of this method would be an increase in the cost per hour growth for each operator -- SCRTD would go from 24.8 percent to 27.9 percent, LBT from 23.6 percent to 36.8 percent, and SMMBL from 29 percent to 33.9 percent.

SYSTEMWIDE COST GROWTH FOR TPM PROGRAM PURPOSES

<u>MEASUREMENT OF COST GROWTH</u>	<u>OPERATOR</u>		
	<u>SCRTD</u>	<u>LBT</u>	<u>SMMBL</u>
<u>ALTERNATIVE 1:</u>			
<u>All Cost Categories</u> <u>(high, moderate and low)</u>			
Systemwide Growth (FY82-85)	24.8%	23.6%	29.0%
Total CPI-W Growth (FY82-85)	7.3%	7.3%	7.3%
CPI-W with 10 Percent Grace	-	8.0%	8.0%
<hr/>			
<u>ALTERNATIVE 2:</u>			
<u>High and Moderate</u> <u>Cost Categories Only</u>			
Systemwide Growth (FY82-85)	27.9%	36.8%	33.9%
Total CPI-W Growth (FY82-85)	7.3%	7.3%	7.3%
<hr/>			
<u>ALTERNATIVE 3:</u>			
<u>All Cost Categories</u> <u>(high, moderate and low)</u>			
Systemwide Growth (FY82-85)	24.8%	23.6%	29.0%
Total CPI-W Growth (FY82-85)	7.3%	7.3%	7.3%
CPI-W with 20 Percent Grace	8.8%	8.8%	8.8%
<hr/>			

While not formally requested, another option would be to exclude both low and moderate cost control items, still leaving 60 to 70 percent of the total budget in the cost growth analysis. This would change the actual rate of growth from 24.8 percent to 29.8 percent for SCRTD, from 23.6 percent to 37.7 percent for LBT, and from 29 percent to 25.7 percent at SMMBL. In all cases, the local CPI-W growth of 7.3 percent is exceeded by far.

The third alternative is to increase the grace allowance over the CPI-W to, say, 20 percent. This alternative would, as at present, include all operating cost items. This alternative would place SMMBL in compliance with the TPM cost growth allowance for FY84. None of the operators would fall within this range in any other year. In fact, over the FY 1982-85 period, SCRTD exceeded the local CPI-W by 240 percent, LBT by 223 percent and SMMBL by 297 percent. The twenty percent grace may help some of the other Los Angeles County operators, just as it would have benefited SMMBL in FY84.

# I. INTRODUCTION

## I. INTRODUCTION

Cost growth by expense item is an issue of great concern to transit operators throughout the nation due to a continued sense of austerity and constrained financial resources. This is particularly true of the transit operators in Los Angeles County, where cost growth is a driving factor in determining the allocation of discretionary funds, and the offering of funding incentives by the Los Angeles County Transportation Commission (LACTC).

Traditionally, the yardstick that has been used to measure the reasonableness of cost growth per vehicle service hour is the change in the local Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). There has, however, been some question as to the appropriateness of using the CPI-W as the basis against which transit cost growth is measured. This concern has primarily focused on two attributes of the CPI-W.

First, the CPI-W measures the cost to the consumer of goods and services that are broad and wide ranging, including some items (e.g., food, housing) which have no direct relation to transportation or transit operations. Second, the CPI-W measures the price level of a basket of goods which generally does not change over time. Some local transit operators do not maintain a constant ratio of goods and services to operate transit services from year to year. Changes in the fleet mix, management information systems, technology and the distribution of labor all impact cost growth in some manner.

As part of the FY86 Triennial Performance Audits, Price Waterhouse has been authorized by LACTC to conduct a detailed analysis of cost growth among the three largest operators in Los Angeles County -- Southern California Rapid Transit District

(SCRTD), Long Beach Transit (LBT) and Santa Monica Municipal Bus Lines (SMMBL). This analysis presents detailed information and trends in operating cost items over the period FY82-FY85 for the three Los Angeles-area operators under review. While this review is not intended to provide recommendations for changing the current Transit Performance Measurement (TPM) Program, it does examine several cost growth measurement methods proposed by both LACTC and the operators.

This section of the report reviews LACTC's current TPM program as regards operator cost growth measurement, outlines the objectives of the report and discusses the organization of this document.

#### A. CURRENT TRANSIT PERFORMANCE MEASUREMENT (TPM) PROGRAM

LACTC created the Transit Performance Measurement (TPM) Program at the legislative directive of Section 130380 of the California Public Utilities Code (AB 103 of 1979). The program -- which by law is reviewed and readopted every two years -- requires the Los Angeles County bus operators to efficiently use the subsidies distributed to them by the Commission. Transit system performance is monitored by Commission staff on the basis of seven financial and operating ratios:

- o Operating cost per vehicle service hour.
- o The sum of operating revenue, local subsidies, and auxiliary revenues divided by operating cost.
- o LACTC-distributed subsidy per unlinked passenger.
- o Unlinked passengers per vehicle service hour.
- o Passenger revenue divided by operating cost.
- o Revenue per unlinked passenger.

- o Vehicle service hours per peak vehicle.

Standards have been established for the first three of these ratios. The standard for the first ratio -- operating cost per vehicle service hour (the focus of this report) -- is that an operator's cost for each year may not increase faster than the rate of inflation in the Los Angeles area. This has been slightly modified so that all but the most expensive operator (i.e., on a per vehicle service hour basis) may experience cost growth of up to ten percent above the local area Consumer Price Index (CPI). The CPI measure used is the CPI for Urban Wage Earners and Clerical Workers (CPI-W) for the Los Angeles/Long Beach/Anaheim area, calculated on a fiscal year (July 1 through June 30) basis.

An operator that meets the cost growth requirement is provided a bonus in the form of additional future subsidies, up to a maximum of five percent of that operator's formula share of local subsidies under the Discretionary Funding program. The bonus could also be offered regardless of performance by LACTC, if the Commission perceives a valid public purpose in the action. Consequently, the bonus, if applied, is intended to take affect two years after the year in which cost growth less than or equal to the CPI-W was identified. It is important to note that to date, the financial incentives program has not been strictly applied.

A number of individual operators have requested that some expense categories be exempted from the program, arguing that they have little or no control over several cost items (e.g., FICA, taxes). LACTC has been requested to review the affect, if any, of exempting low cost control items from the performance measurement program.



## B. STUDY OBJECTIVES AND APPROACH

The objective of this study is to analyze cost growth for the three largest transit operators in Los Angeles County -- SCRTD, LBT and SMMBL. This is achieved by developing a profile of cost growth at the expense line item level. The purpose of the report is analytical -- to provide factual information on cost growth trends over the review period and to analyze the affects of various proposed cost growth measurement alternatives on the TPM process. The analysis is intended for use by LACTC policy makers, staff and local operators in examining alternatives to the current program.

The cost growth profile for each of the three Los Angeles County operators was developed using individual Section 15 reports, submitted annually to the Urban Mass Transportation Administration (UMTA). These reports were used as the basis of our review for three reasons. First, LACTC uses the UMTA Section 15 reports in their analysis of operator cost growth for the TPM program purposes. Second, the UMTA Section 15 report provides the most consistent basis available on which to compare transit operator cost items. Third, UMTA requires that financial figures presented in the Section 15 report be audited by a firm of Certified Public Accountants. An interpretive caution must, however, be noted even when comparing audited Section 15 reports. UMTA allows transit operators a degree of discretion in allocating overhead and common expense items among functions (e.g., utilities, support staff, fringe benefits). Many operators allocate overhead items to the general administration function. Where operators do allocate overhead expense items among functions, the method of allocation often varies -- some operators basing it on the percentage of total direct labor expense in each function, others on actual financial records. Consequently, any comparative evaluation by line item based on Section 15 data will indicate broad trends, and not necessarily reflect minute operating differences.

Cost growth is analyzed at a line item level by functional area -- vehicle operations, vehicle maintenance, non-vehicle maintenance and general administration -- in terms of cost per vehicle service hour. Only bus modes were included for comparative purposes. Within each of the functions, an expense breakdown by object classification (i.e., as contained in Form 315 of the UMTA Section 15 report) is used, as shown in Exhibit I-1.

Two screens of comparison are used for cost growth analysis. First, SCRTD, SMMBL and LBT are compared to each other and to the local CPI-W over a four-year period (FY 1982-85). Second, cost growth trends for SCRTD are compared to those for motor bus operations of transit systems in four major metropolitan centers -- Chicago's CTA, New York's MTA, Washington's WMATA and San Francisco's Muni.

The FY 1982-85 review period was decided upon between the consultant and LACTC. While initially, a broader timeframe (FY 1979-85) was under consideration for the review, it was decided by both the Commission and the consultant that the results would be less meaningful in terms of their relevance to current trends in cost growth. In addition, as FY 1979 was the first year in which transit operators were required to prepare and submit an UMTA Section 15 report, reporting errors which could lead to a distortion in the cost growth review were more likely to have occurred in the earlier years (FY 1979 and 1980).

### C. REPORT ORGANIZATION

The remaining sections of the report are organized as follows:

- o Section II presents an analysis of normalized transit operator cost growth over the period FY82 through FY85. Cost growth analysis is presented for both the three Los Angeles area operators and the four other large transit systems relative to SCRTD.

EXPENSE LINE ITEMS ANALYZED  
FROM FORM 315 OF THE  
UMTA SECTION 15 REPORT

LABOR:

Operator Wages and Salaries  
Other Wages and Salaries

FRINGE BENEFITS

SERVICES (includes Professional and Technical Services, Temporary Help, Contract Maintenance Services, Custodial Services, and Other Services)

MATERIALS AND SUPPLIES:

Fuel and Lubricants  
Tires and Tubes  
Other Materials and Supplies

UTILITIES

CASUALTY AND LIABILITY COSTS (includes Premiums for Physical Damage Insurance, Recoveries of Physical Damage Losses, Premiums for PL and PD Settlements, and Payouts and Provisions for PL and PD settlements)

TAXES

PURCHASED TRANSPORTATION

MISCELLANEOUS (includes Travel, Meetings, Dues and Subscriptions, Bad Debts)

INTEREST EXPENSE

LEASES AND RENTALS

- o Section III summarizes the results of the previous section, outlines conclusions as to the relative control or influence transit management has over expense items, and reviews actual cost growth results. The effects of a number of alternative strategies for measuring operator cost growth for TPM program purposes -- provided by LACTC and the operators -- are examined.

**II. ANALYSIS OF COST  
GROWTH TRENDS**

## II. ANALYSIS OF COST GROWTH TRENDS

This section presents a detailed analysis and comparison of cost growth trends over the three year period FY 1982-85. Initially, the terminology used in the analysis is defined and explained. This is followed by a comparison of changes in cost growth versus the local CPI-W, by functional area and expense item for the three Los Angeles County operators under review. A similar comparison between SCRTD and four comparable operators nationwide is then provided.

### A. DEFINITIONS

Three key items used in the analysis -- degree of management control by expense item, the CPI, and the normalization of expense items, are defined and explained below.

#### 1. Degree of Management Control by Expense Item

Typically, each individual transit operator line item expense can be categorized by the degree to which management decision-making affects its growth. In this review, expense line items from the UMTA Section 15 reports (by functional area) were divided into areas with relatively low management cost control, moderate control and high control. Management has some influence over the cost of all items, in terms of the amount consumed and/or the unit cost. For example, while the rate of vehicle taxes are established by law, operators can reduce the magnitude of this cost item by effectively managing its vehicle condition and spare ratio (i.e., fewer spares will result in lower taxes). Another example is labor costs. Management negotiates the rate of pay for many employees, and establishes productivity requirements for employees. Both areas can be reduced -- SCRTD negotiated a lower rate of pay for all newly hired service attendants and could

lower the number of employees required to perform the work by reducing absenteeism. Not intending to oversimplify the degrees of management influence over cost, the following categories were established:

- o High Cost Control Items: These are expense items over which management has a degree of influence over both the quantity of a cost item consumed (i.e., the total number of units purchased) and the price per unit. High cost control items include wages, salaries and negotiated fringe benefits which management influences in terms of the number of employees, the mix of staff, the productivity of employees, and the amount paid. While the external market also influences overall wage rates, management still has a high degree of control over this cost category relative to other cost items. This category also includes purchased transportation expenses -- an item negotiated in terms of the scope and scale.
- o Moderate Cost Control Items: These are goods and services which management has to purchase from the market place -- albeit the market place is specialized, often towards transit. For moderate control areas, the type, quality, quantity and purchase arrangements are subject to a high degree of influence by management. The cost per unit can also be influenced by management, as transit comprises a large share of this specialized market. However, management's influence over unit cost is limited. Items in this category include materials and supplies (other than fuels, lubricants, tires and tubes), services and miscellaneous expenses.
- o Low Cost Control Items: Low cost items are those which management can only impact to a limited degree as they are either legally specified or broad-based market

commodities with little negotiation opportunity. The primary means of influence management has over cost growth in these areas is in the amount of the good or service consumed. Items in this category include fuel, lubricants, tires, tubes, taxes, mandatory fringe benefits, utilities, casualty and liability expenses, interest expenses, and lease and rental expenses.

The allocation of expense items by functional area for the purposes of this review is summarized in Exhibit II-1.

## 2. Measurement of the Consumer Price Index

As noted earlier, the measure against which cost growth is compared is the CPI for Urban Wage Earners and Clerical Workers (CPI-W) for the Los Angeles/Long Beach/Anaheim area. To be consistent with LACTC's method for calculating CPI changes, the percentage changes in the Los Angeles area CPI-W presented in this report are fiscal year annual amounts. These figures are computed by determining the arithmetic mean index figure for each fiscal year from the published monthly index figures, and then calculating the year-to-year change and the cumulative percentage change over the entire review period.

## 3. Normalization of Expense Items

So as to conduct the comparison of cost growth by expense item to inflation on a consistent basis, all expense items are first divided by motor bus vehicle service hours -- a measure of transit output. The year-to-year change in the normalized expense item is then calculated and compared to inflation. As a consequence, the analysis is conducted on a relative basis, with normalized costs rather than absolute costs being compared. This parallels LACTC's method for calculating operator cost growth for TPM program purposes.



EXPENSE ITEM BY  
DEGREE OF MANAGEMENT CONTROL

<u>Functional Area</u>	<u>DEGREE OF MANAGEMENT CONTROL</u>		
	<u>High</u>	<u>Moderate</u>	<u>Low</u>
Vehicle Operations	Operator wages and salaries Other wages and salaries Fringe benefits (negotiated)	Other materials and supplies Services	Fuel and Lubricants Fringe benefits (required) Tires and tubes Taxes
Vehicle Maintenance	Wages and salaries Fringe benefits (negotiated)	Other materials and supplies Services	Fuel and lubricants Fringe benefits (required)
Non-Vehicle Maintenance	Wages and salaries Fringe benefits (negotiated)	Other materials and supplies Services	Fringe benefits (required)
General Administration	Wages and salaries Fringe benefits (negotiated) Purchased Transportation	Other materials and supplies Services Miscellaneous	Utilities Fringe benefits (required) Casualty and liability Interest expenses Leases and rentals

B. ANALYSIS OF LOS ANGELES COUNTY OPERATORS

Total growth in normalized operating costs for the three Los Angeles County transit operators reviewed (SCR TD, LBT and SMMBL) was broadly similar over the FY 1982-85 period, as shown in Exhibit II-2. SCR TD's operating costs grew 24.8 percent over the period, LBT's grew 23.6 percent, and SMMBL's grew 29 percent -- as compared to 7.3 percent growth in the local CPI-W over the same period. In FY85, SCR TD operated on a total budget of \$476 million, LBT on \$21 million and SMMBL on \$11.5 million. This translates to an operating cost per vehicle service hour of \$67.60, \$45.05 and \$41.27 for SCR TD, LBT and SMMBL, respectively.

In most cases, the primary cost drivers were items falling in the high degree of management control category. Items in this category rose 29.8 percent over the period in the case of SCR TD, where they represent almost 69 percent of total expenses; growth was 37.7 percent in the case of LBT, where they represent over 71 percent of total expense; and these expenses grew 25.7 percent for SMMBL, where they represent almost 61 percent of total expenses.

In contrast, SCR TD's expenses classified as subject to moderate and low management influence -- representing 9 percent and 22 percent of total expenses, respectively -- grew at approximately 15 percent. In the case of LBT, expenses classified as moderate grew almost 38 percent, and those classified as low declined 16 percent over the period. These expenses represent approximately 12 percent and 17 percent, respectively, of LBT's total expenditures. Expenses over which SMMBL has a moderate degree of management control (representing 17 percent of total operating expenses in FY85) grew 73 percent, and those over which the operator has a low degree of management control (almost 22 percent of the total) grew less than 14 percent.

Consequently, SCR TD experienced a higher rate of growth in those items over which it has a high degree of control as compared to

COMPARISON OF TRANSIT OPERATOR COST GROWTH<sup>(1)</sup>

SCRTD, LBT, SMMBL

FY 1982 - FY 1985

DEGREE OF MANAGEMENT CONTROL: HIGH

	SCRTD		LBT		SMMBL	
	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth
<u>CUMULATIVE PERCENT CHANGE IN:</u>						
Los Angeles/Long Beach/ Anaheim CPI-W	-	7.3%	-	7.3%	-	7.3%
<u>SYSTEMWIDE COST GROWTH:</u>	100.00%	24.8%	100.00%	23.6%	100.00%	29.0%
<u>EXPENSE ITEM:</u>						
<u>Vehicle Operations</u>						
Operator wages and salaries	25.03%	17.3%	33.58%	17.5%	34.13%	17.5%
Other wages and salaries	3.64%	18.9%	3.89%	97.1%	1.96%	34.2%
Fringe benefits (negotiated)	12.09%	41.8%	13.10%	42.1%	10.90%	38.3%
<u>Vehicle Maintenance</u>						
Wages and salaries	12.23%	25.2%	8.05%	41.3%	6.44%	32.8%
Fringe benefits (negotiated)	5.16%	51.3%	2.81%	-	1.94%	36.1%
<u>Non-Vehicle Maintenance</u>						
Wages and salaries	0.52%	(13.8)%	-0-	-	0.25%	3.0%
Fringe benefits (negotiated)	0.22%	3.5%	-0-	-	0.08%	3.2%
<u>General Administration</u>						
Wages and salaries	6.82%	54.7%	4.58%	49.8%	3.98%	50.5%
Fringe benefits (negotiated)	2.88%	87.3%	0.80%	27.9%	1.20%	49.0%
Purchased Transportation	-0-	-	4.43%	70.2%	-0-	-
TOTAL	68.59%	29.8%	71.24%	37.7%	60.88%	25.7%

COMPARISON OF TRANSIT OPERATOR COST GROWTH<sup>(1)</sup>

SCRTD, LBT, SMMBL

FY 1982 - FY 1985

DEGREE OF MANAGEMENT CONTROL: MODERATE

	SCRTD		LBT		SMMBL	
	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth
<u>CUMULATIVE PERCENT CHANGE IN:</u>						
Los Angeles/Long Beach/ Anaheim CPI-W	-	7.3%	-	7.3%	-	7.3%
<u>SYSTEMWIDE COST GROWTH:</u>	100.00%	24.8%	100.00%	23.6%	100.00%	29.0%
<u>EXPENSE ITEM:</u>						
<u>Vehicle Operations</u>						
Other materials and supplies	0.20%	48.9%	0.10%	(39.0)%	0.02%	0.00%
Services	-0-	-	0.17%	(35.3)%	-0-	-
<u>Vehicle Maintenance</u>						
Other materials and supplies	4.84%	3.4%	5.09%	64.4%	6.17%	17.8%
Services	0.63%	147.7%	0.28%	8.5%	3.22%	59.7%
<u>Non-Vehicle Maintenance</u>						
Other materials and supplies	0.55%	21.8%	0.44%	22.5%	0.44%	33.8%
Services	-0-	-	0.47%	24.1%	0.63%	295.5%
<u>General Administration</u>						
Other materials and supplies	0.46%	(18.5)%	0.47%	17.8%	0.31%	15.2%
Services	1.91%	33.6%	3.38%	12.2%	5.82%	283.4%
Miscellaneous	0.54%	40.2%	1.39%	37.7%	0.81%	68.8%
<b>TOTAL</b>	<b>9.13%</b>	<b>15.5%</b>	<b>11.79%</b>	<b>31.9%</b>	<b>17.42%</b>	<b>73.8%</b>

COMPARISON OF TRANSIT OPERATOR COST GROWTH<sup>(1)</sup>

SCRTD, LBT, SMMBL

FY 1982 - FY 1985

DEGREE OF MANAGEMENT CONTROL: LOW

	SCRTD		LBT		SMMBL	
	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth
<u>CUMULATIVE PERCENT CHANGE IN:</u>						
Los Angeles/Long Beach/ Anaheim CPI-W	-	7.3%	-	7.3%	-	7.3%
<u>SYSTEMWIDE COST GROWTH:</u>	100.00%	24.8%	100.00%	23.6%	100.00%	29.0%
<u>EXPENSE ITEM:</u>						
<u>Vehicle Operations</u>						
Fuel and lubricants	5.49%	(13.4)%	7.56%	(23.9)%	9.62%	(18.7)%
Fringe benefits (legal)	3.02%	41.8%	3.28%	42.1%	2.72%	38.3%
Tires and tubes	0.86%	2.3%	1.05%	6.1%	1.55%	71.1%
Taxes	0.41%	(5.1)%	0.12%	5.9%	0.75%	(4.4)%
<u>Vehicle Maintenance</u>						
Fuel and lubricants	0.16%	(19.6)%	-0-	-	0.17%	132.3%
Fringe benefits (legal)	1.29%	51.3%	0.70%	-	0.48%	36.1%
<u>Non-Vehicle Maintenance</u>						
Fringe benefits (legal)	0.05%	3.5%	-0-	-	0.02%	3.2%
<u>General Administration</u>						
Utilities	0.99%	69.3%	0.75%	38.7%	0.89%	124.4%
Fringe benefits (legal)	0.72%	87.3%	0.20%	27.9%	0.30%	49.0%
Casualty and liability	6.53%	14.7%	3.29%	(42.9)%	5.03%	105.1%
Interest expenses	1.28%	118.8%	0.01%	-	-0-	-
Leases and rentals	1.48%	13.8%	0.01%	(96.0)%	0.17%	60.0%
<u>TOTAL</u>	22.28%	14.9%	16.97%	(16.0)%	21.70%	13.7%

FOOTNOTE:

1. Individual expense items normalized by dividing by annual vehicle service hours.

SOURCE: Annual UMTA Section 15 Reports

those items over which it has moderate or low control. LBT experienced the highest growth rate in those items over which it has a high degree of management control, and actually experienced a decline in those items over which it has only low management control. SMMBL, in contrast, experienced its highest growth rate in items over which it has moderate control. Cost growth for high control items was slightly lower for this operator than for either SCRTD or LBT. It is important to note that with the exception of low cost control items at LBT, all categories of expenditures at all three operators grew at a rate exceeding local inflation.

The primary cost drivers for SCRTD's 30 percent growth in high category cost items was a 42 percent growth in negotiated fringe benefits for operators (an item that represented almost 18 percent of total high category expense items in FY85), and a 51 percent increase in vehicle maintenance employees' negotiated fringe benefits (representing 7.5 percent of high category expenses). In addition, general administration expenses also helped to contribute to the growth in high category items. Wages and salaries, and negotiated fringe benefits grew 54.7 percent and 87.3 percent, respectively, over the period. In contrast, wages and salaries in vehicle operations and maintenance experienced growth well below administrative salaries growth. Wages and salaries in the vehicle operations function grew approximately 18 percent, those in vehicle maintenance grew 25 percent, and non-vehicle maintenance wages and salaries actually declined by 14 percent.

Cost growth at a detailed level in the high control category was fairly similar in the cases of LBT and SMMBL. Both operator and general administration wages and salaries grew 17.5 percent and 50 percent, for each operator. Negotiated fringe benefits growth in the vehicle operations functional area (at approximately 40 percent) were broadly similar for all three operators.

Some differences did occur. Wages and salaries for vehicle maintenance employees grew at a considerably higher rate in the case of LBT and SMMBL (41 percent and 33 percent, respectively) than they did for SCRTD (i.e., a 25 percent rate of growth). Negotiated fringe benefits in the case of general administration, on the other hand, grew at a lower rate for both LBT and SMMBL (28 percent and 49 percent, respectively) than they did for SCRTD (87 percent). This expense item also represented a lower proportion of total expenses in the case of the smaller operators than it did for SCRTD.

In the case of expense items over which management has a moderate degree of management control, primarily materials and supplies, SCRTD experienced the lowest growth rate, 15.5 percent, versus 32 percent for LBT and almost 74 percent for SMMBL.

The primary driver towards lowering the average growth rate in this category was vehicle maintenance materials and supplies. Representing over half of all expenses in the category, this expense item experienced a 3.4 percent increase over the review period. SCRTD's other large expense item in the moderate category was general administration services, which grew over 33 percent during the period.

In contrast to SCRTD's experience, LBT's vehicle maintenance materials and supplies expense grew 64 percent, driving up the average growth rate for the category, while general administration expenses grew at 12 percent, bringing down the average to 32 percent overall.

The primary driver in raising SMMBL's average cost growth in the moderate control category to almost 74 percent -- the highest for the three operators -- was a 283 percent increase in the general administration services expense. This expense represented over one-third of SMMBL's total expenses in this category in FY 1985.

SMMBL's vehicle maintenance expense -- 35 percent of the total in the moderate control category -- grew at the rate of 17.8 percent.

It should be noted that while SCRTD's expenses categorized as moderate represented just over 9 percent of total expenses in FY 1985, and those of LBT represented just under 12 percent, SMMBL's expenses in the category amounted to over 17 percent of the total.

The primary driver in the low average cost growth (and actual decline, in the case of LBT) experienced over the review period for those items of low management control, was the decline in fuel and lubricants expense. This expense item in the vehicle operations function -- representing a quarter of SCRTD's total expenses in the category, and almost 45 percent of both LBT's and SMMBL's -- declined between 13 percent and 24 percent for each operator. Growth in casualty and liability expense, another major expense item in the low control category, varied widely among the operators. While SMMBL's casualty and liability expense grew 105 percent, SCRTD's grew just under 15 percent, and LBT's declined 43 percent. The third major expense item in the low control category is mandatory fringe benefits -- over 13 percent of the category total in the case of SCRTD. This expense item grew at a rate of approximately 40 percent for each operator over the period.

### C. ANALYSIS OF LARGE OPERATORS

SCRTD, experienced cost growth generally in line with comparable transit operators over the period FY 1982-85.

This conclusion is drawn on the basis of a detailed comparison of line item costs between SCRTD and the motor bus operations of Chicago's CTA, New York's MTA, Washington's WMATA and San Francisco's Muni as outlined in Exhibit II-3. These operators



COMPARISON OF TRANSIT OPERATOR COST GROWTH<sup>(1)</sup>  
 SCRID, CTA, NYMTA, WMATA, MUNI  
 FY 1982 - FY 1985

DEGREE OF MANAGEMENT CONTROL: HIGH

CUMULATIVE PERCENT CHANGE IN:	LOS ANGELES		CHICAGO		NEW YORK CITY		WASHINGTON, D.C.		SAN FRANCISCO	
	Local CPI <sup>(2)</sup>		7.3%	7.6%	15.0%	14.1%	9.7%			
SYSTEMWIDE COST GROWTH:	SCRID(3)		CTA(4)		NYMTA(5)		WMATA(3)		MUNI(3)	
	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth
	100.00%	24.8%	100.00%	18.2%	100.00%	29.8%	100.00%	30.5%	100.00%	77.8%
<u>EXPENSE ITEM:</u>										
<u>Vehicle Operations</u>										
Operator wages and salaries	25.03%	17.3%	29.25%	9.4%	25.45%	22.5%	22.47%	21.0%	31.77%	83.0%
Other wages and salaries	3.64%	18.9%	4.64%	11.5%	4.63%	30.3%	2.66%	42.0%	4.87%	3.3%
Fringe benefits (negotiated)	12.09%	41.8%	13.98%	42.4%	14.59%	24.1%	7.75%	(9.8)%	12.99%	92.2%
<u>Vehicle Maintenance</u>										
Wages and salaries	12.23%	25.2%	8.13%	17.6%	11.72%	30.1%	8.35%	57.6%	11.82%	94.4%
Fringe benefits (negotiated)	5.16%	51.3%	3.36%	54.7%	5.68%	30.5%	2.61%	5.2%	3.83%	164.4%
<u>Non-Vehicle Maintenance</u>										
Wages and salaries	0.52%	(13.8)%	2.82%	8.2%	1.14%	(9.2)%	1.22%	35.1%	3.07%	116.1%
Fringe benefits (negotiated)	0.22%	3.5%	1.17%	43.3%	0.56%	(8.7)%	0.38%	(9.6)%	0.98%	170.9%
<u>General Administration</u>										
Wages and salaries	6.82%	54.7%	6.42%	25.7%	7.78%	68.5%	4.52%	48.5%	1.02%	556.8%
Fringe benefits (negotiated)	2.88%	87.3%	2.65%	64.8%	3.77%	57.2%	8.71%	505.6%	0.65%	1186.1%
TOTAL	68.59%	29.8%	72.42%	20.8%	75.32%	29.1%	58.67%	37.7%	71.00%	85.1%

COMPARISON OF TRANSIT OPERATOR COST GROWTH<sup>(1)</sup>  
 SCRIPD, CTA, NYMTA, WMATA, MUNI  
 FY 1982 - FY 1985

DEGREE OF MANAGEMENT CONTROL: MODERATE

CUMULATIVE PERCENT CHANGE IN:	LOS ANGELES		CHICAGO		NEW YORK CITY		WASHINGTON, D.C.		SAN FRANCISCO	
	Local CPI <sup>(2)</sup>		7.6%		15.0%		14.1%		9.7%	
	7.3%		7.6%		15.0%		14.1%		9.7%	
	SCRIPD(3)		CTA(4)		NYMTA(5)		WMATA(3)		MUNI(3)	
	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth
<u>SYSTEMWIDE COST GROWTH:</u>	100.00%	24.8%	100.00%	18.2%	100.00%	29.8%	100.00%	30.5%	100.00%	77.8%
<u>EXPENSE ITEM:</u>										
<u>Vehicle Operations</u>										
Other materials and supplies	0.20%	48.9%	0.05%	36.8%	0.15%	390.9%	0.10%	41.9%	0.04%	(49.2)%
<u>Vehicle Maintenance</u>										
Other materials and supplies	4.84%	3.4%	4.92%	17.7%	2.78%	6.6%	4.60%	38.3%	3.63%	71.9%
Services	0.63%	147.7%	1.87%	(33.8)%	0.32%	(7.5)%	0.21%	513.5%	1.97%	131.9%
<u>Non-Vehicle Maintenance</u>										
Other materials and supplies	0.55%	21.8%	0.56%	15.4%	0.44%	(11.0)%	0.31%	9.9%	0.61%	145.3%
<u>General Administration</u>										
Other materials and supplies	0.46%	(18.5)%	0.54%	103.3%	2.93%	72.1%	0.80%	746.1%	0.01%	1000.0%
Services	1.91%	33.6%	2.06%	96.0%	1.50%	32.4%	1.08%	114.7%	6.22%	133.3%
Miscellaneous	0.54%	40.2%	0.25%	13.9%	1.21%	119.6%	0.25%	79.1%	0.23%	(52.4)%
<b>TOTAL</b>	<b>9.13%</b>	<b>15.5%</b>	<b>10.25%</b>	<b>13.1%</b>	<b>9.33%</b>	<b>35.8%</b>	<b>7.35%</b>	<b>65.2%</b>	<b>12.71%</b>	<b>97.7%</b>

COMPARISON OF TRANSIT OPERATOR COST GROWTH<sup>(1)</sup>

SCRID, CTA, NYMTA, WMATA, MUNI

FY 1982 - FY 1985

DEGREE OF MANAGEMENT CONTROL: LOW

CUMULATIVE PERCENT CHANGE IN:	LOS ANGELES		CHICAGO		NEW YORK CITY		WASHINGTON, D.C.		SAN FRANCISCO	
	Local CPI <sup>(2)</sup>		7.3%	7.6%	15.0%	14.1%	9.7%			
SYSTEMWIDE COST GROWTH:	SCRID(3)		CTA(4)		NYMTA(5)		WMATA(3)		MUNI(3)	
	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth	% of total expenses (FY85)	Cumulative % growth
	100.00%	24.8%	100.00%	18.2%	100.00%	29.8%	100.00%	30.5%	100.00%	77.8%
<b>EXPENSE ITEM:</b>										
<u>Vehicle Operations</u>										
Fuel and lubricants	5.49%	(13.4)%	5.15%	(18.9)%	3.65%	(7.1)%	4.61%	(12.1)%	6.39%	31.8%
Fringe benefits (legal)	3.02%	41.8%	3.49%	42.4%	3.65%	24.1%	1.94%	(9.8)%	3.25%	92.2%
Tires and tubes	0.86%	2.3%	0.33%	0.0%	0.52%	27.2%	0.62%	35.9%	0.69%	84.5%
Taxes	0.41%	(5.1)%	-0-	(100.0)%	-0-	-	-0-	-	-0-	-
<u>Vehicle Maintenance</u>										
Fuel and lubricants	0.16%	(19.6)%	0.04%	4.8%	0.06%	(63.6)%	0.12%	(14.8)%	-0-	(100.0)%
Fringe benefits (legal)	1.29%	51.3%	0.84%	54.7%	1.42%	30.5%	0.65%	5.2%	0.96%	164.4%
<u>Non-Vehicle Maintenance</u>										
Fringe benefits (legal)	0.05%	3.5%	0.29%	43.3%	0.14%	(8.7)%	0.10%	(9.6)%	0.24%	170.9%
<u>General Administration</u>										
Utilities	0.99%	69.3%	1.47%	(12.6)%	0.37%	(45.6)%	1.07%	53.4%	0.78%	120.4%
Fringe benefits (legal)	0.72%	87.3%	0.66%	64.8%	0.94%	57.2%	2.18%	505.6%	0.16%	1186.1%
Casualty and liability	6.53%	14.7%	3.19%	58.6%	1.54%	85.7%	1.65%	(23.5)%	2.91%	(16.3)%
Interest expenses	1.28%	118.8%	0.75%	8.2%	1.45%	2497.6%	20.53%	18.1%	0.76%	-
Leases and rentals	1.48%	13.8%	1.12%	27.5%	1.61%	64.0%	0.51%	106.0%	0.15%	15.9%
<b>TOTAL</b>	<b>22.28%</b>	<b>14.9%</b>	<b>17.33%</b>	<b>11.3%</b>	<b>15.35%</b>	<b>29.7%</b>	<b>33.98%</b>	<b>14.9%</b>	<b>16.29%</b>	<b>42.1%</b>

COMPARISON OF TRANSIT OPERATOR COST GROWTH<sup>(1)</sup>  
SCRFD, CTA, NYMTA, WMATA, MUNI  
FY 1982 - FY 1985

FOOTNOTES:

1. Individual expense items normalized by dividing by vehicle service hours.
2. CPI-W for the local SMSA.
3. Expense item and CPI growth measured between FY82 (year ending 6/30/82) and FY85 (year ending 6/30/85).
4. Expense item and CPI growth measured between CY82 (year ending 12/31/82) and CY85 (year ending 12/31/85).
5. Expense item and CPI growth measured between FY82 (year ending 6/30/82) and CY85 (year ending 12/31/85).

SOURCE: Annual UMTA Section 15 Reports

were chosen by the consultant and LACTC to be comparable to SCRTD in terms of size of operating budget, total peak vehicles and operating environment. Conclusions could thus be drawn on SCRTD's cost growth performance vis a vis that experienced in other major metropolitan areas.

One way to compare transit cost per vehicle service hour growth between operators in different locations is to examine the difference between the CPI-W growth and growth in operating expenditures. Over the FY 1982-85 period, operating cost growth exceeded the local CPI-W as follows:

o Chicago CTA:	10.6 percent
o New York MTA:	14.8 percent
o Washington, D.C. WMATA:	16.4 percent
o Los Angeles SCRTD:	17.5 percent
o San Francisco Muni:	68.1 percent

In absolute terms, SCRTD's normalized costs grew at a lower rate than any other operations except the CTA. Inflation in all four cities -- Chicago, New York City, Washington D.C., and San Francisco -- was, however, higher than that in Los Angeles.

The trend noted in the prior section for SCRTD, namely that high and moderate control category expenses grew at a higher rate than low control category expenses, is also reflected nationwide.

In the high control category, SCRTD's growth rate of 29.8 percent over the period is matched by New York's MTA and considerably exceeded by both Washington's WMATA (37.7 percent) and San Francisco's Muni (85.1 percent). Only Chicago's growth rate of 21 percent is less than SCRTD's. When inflation is taken into account however, the MTA's cost growth performance is slightly better than SCRTD's while WMATA's is very similar. In most cases high control expense items represent between 68 and 75 percent of total expenses. The exception is WMATA, where they represent 59 percent of the total.

In the moderate control category, SCRTD's real normalized cost growth performance is bettered only by that of Chicago (8.2 percent versus 5.5 percent). In contrast, New York's growth rate in this category was almost 25 percent, WMATA's over 50 percent, and Muni's 88 percent.

SCRTD's real growth rate in normalized costs between FY 1982 and FY 1985 in the low control category -- at 7.6 percent -- was bettered by WMATA (0.8 percent) and Chicago (3.7 percent).

A primary driver that tended to raise SCRTD's overall growth rate in the high control category was general administration wages, salaries and negotiated benefits. This was also reflected in the experience of the other four operators. While SCRTD's general administration wages and salaries grew 48 percent, those of New York grew 53 percent, and WMATA's grew 34 percent. The CTA experienced the lowest rate of growth -- 18 percent. SCRTD's negotiated fringe benefits growth in this functional area were higher in real terms (80 percent) than Chicago's (57 percent) or New York's (42 percent); but much lower than the very high growth rates experienced by WMATA and Muni.

Negotiated fringe benefits in the vehicle operations and vehicle maintenance functions -- factors which increased the average cost growth in the high control category -- experienced very similar real cost growth in the CTA and SCRTD (approximately 35 percent for vehicle operations and 45 percent for vehicle maintenance). In both cases, New York's and WMATA's equivalent cost growths were lower -- 9 percent and 15 percent, respectively.

The major factors tending to reduce the average cost growth in the high control category are wages and salaries in the operations and maintenance functions. Operator wages and salaries, representing between 20 and 30 percent of total costs in each case, experienced similar real increases for three operators:

SCRTD (10 percent), New York (7.5 percent) and WMATA (6.1 percent). Chicago's equivalent cost growth was much lower (1.8 percent) and Muni's was much higher (73.3 percent).

Vehicle maintenance wages and salaries displayed a similar trend with the 18 percent real increase experienced by SCRTD being mirrored by New York (15 percent). In this case WMATA's growth rate was higher (43 percent), while Chicago's was -- as before -- considerably lower (10 percent).

In the moderate control category, SCRTD's vehicle maintenance materials and supplies (the largest expense item in the category) declined almost four percent in real terms over the FY82-85 period. This trend is mirrored by New York City, where the expense item declined 8 percent and by Chicago and WMATA where small real increases were experienced. The other big expense item in this category, services in the general administration functional area, experienced lower real growth rates at SCRTD (26.3 percent) than at any other operator except New York (17.4 percent).

In the low control category, the major contributing factor to the low average cost growth among all the operators was the decline in fuel and lubricants costs -- an expense item that represents 5.5 percent of SCRTD's total operating costs. Casualty and liability costs grew at a much slower pace at SCRTD than at either Chicago or New York -- albeit this expense represents 6.5 percent SCRTD's total expenses, versus 3.2 percent of Chicago's total and only 1.5 percent of New York's. Both WMATA and Muni experienced a decline in these expense items.

### **III. CONCLUSIONS**



### III. CONCLUSIONS

The trends experienced in line item cost growth over the period FY 1982-85 were broadly similar among the three Los Angeles County transit operators under review -- SCRTD, LBT and SMMBL; and among the large transit operators nationwide included in the analysis. While systemwide costs grew between 16 percent and 22 percent in real terms (i.e., above the local rate of inflation) for the Los Angeles county operators over the FY 1982-85 period, those for the motor bus operations of large operators grew between 10 percent 18 percent (with the exception of Muni, whose expenditures grew by 68 percent over the rate of inflation).

Expense items over which management has a high to moderate degree of control have, in general, increased at a pace faster than those over which it has little or no control.

As part of the review, expense items were examined in relation to total operating expenditures and the relative degree of management control over each item. Each individual line item expense was allocated to one of three categories -- high, moderate and low degree of management control. The primary items in the high control category are wages and salaries (representing 48 percent of SCRTD's total FY85 expenditures), and negotiated fringe benefits (representing a further 20 percent at SCRTD). Consequently, SCRTD's management has a high degree of control over almost 70 percent of its total operating expenses. This is also reflected at the other operators, both in Los Angeles County and nationwide. The proportion of total budget made up by high control items is in the range between 60 and 75 percent for transit operators reviewed in this study.

Expense items in the moderate control category comprise between 7 percent (in the case of Washington's WMATA) and 17 percent (in

the case of SMMBL) of total costs. SCRTD's expenses in this category are 9 percent of total operating expenditures. The major items in this category are materials and supplies. Typically, vehicle maintenance materials and supplies represent 40 to 60 percent of the total expenses in the moderate control category. Services in the general administration area are generally the second largest item in the category -- representing 2 percent of SCRTD's total operating expenses.

In the low control category, the major expense items are fuel and lubricants, casualty and liability expenses, and mandatory fringe benefits. In general, expense items in this category comprise 15 to 23 percent of total operating expenses. In FY85, SCRTD's low control items totalled 22.3 percent of operating expenses. Fuels and lubricants typically comprise 25 to 45 percent of this total (25 percent in the case of SCRTD), and casualty and liability costs are also, generally a high ticket item. This is particularly so among the Los Angeles County operators. In SCRTD's case, for example, casualty and liability expenses represented 6.5 percent of total expenses in FY 1985.

As noted earlier, during the FY 1982-85 period expense items over which management has high or moderate control have grown at a pace faster than those over which it has little or no control. This trend has been experienced by large operators nationwide as well as the three Los Angeles County operators reviewed. The primary reason for the relatively low growth in the low control category has been the substantial decline in fuel prices experienced over the period.

The factors driving up the average growth rate in the high control category were general administration wages, salaries and negotiated benefits. Again, this was broadly reflected among most operators -- both nationwide and in Los Angeles County. An additional factor which tended to increase the average growth rate in this category for Los Angeles operators was an increase

in negotiated fringe benefits for vehicle operations staff of about 40 percent. The increase in fringe benefits cost was not reflected among the East Coast operators.

The primary factors tending to decrease the average growth rate in this category are operations and maintenance wages and salaries. Again, this is generally reflected both among the Los Angeles County operators and among the large operators nationwide. With the exception of Muni, operator wages and salaries growth has been in the range of two to ten percent in real terms (i.e., near or below the rate of inflation). The Los Angeles County operators experienced growth at the high end of this range.

In the moderate control category, the average growth rate was most sensitive to vehicle maintenance materials and supplies. Consequently, the 4 percent decline (in real terms) experienced by SCRTD over the period, ensured that its average growth rate in this category was among the lowest experienced by any of the operators reviewed (8.2 percent in real terms). In contrast, LBT experienced a 25 percent increase in the category, and SMMBL experienced a 66.5 percent increase. SMMBL's increase was, however, partially due to an unusually high increase in general administration services -- 283 percent over the period in an expense item that accounted for 5.8 percent of its total expenses in FY 1985.

LACTC has proposed a number of alternatives on how best to calculate operator cost growth for TPM program purposes. As noted in a previous section, all but the most expensive Los Angeles County operator in receipt of LACTC funds are assessed a penalty if the increase in their normalized total operating costs exceeds the inflation rate plus ten percent in a given year. In the case of the most expensive operator, the ten percent grace above the CPI is not applicable. The impetus for the development of the alternatives was a proposal by some operators that cost

items over which they have little or no control be excluded from the cost growth calculations. The alternatives discussed by LACTC are:

- o Preserve the current method of calculating cost growth for TPM program purposes.
- o Exclude all low cost control items, as defined in this report, from the annual TPM cost growth review. These expenditures accounted for about 20 percent of the total operating budgets for SCRTD, LBT and SMMBL in FY85.
- o Increase the ten percent grace currently allowed over the CPI-W to some higher percentage.

Preserving the current system of calculating cost growth for TPM program purposes would on the average ensure that SCRTD is assessed a penalty in each of the three years (i.e., FY83, FY84 FY85). SCRTD -- the most expensive local operator in terms of cost per hour -- experienced a 5.8 percent real annual average increase in costs over the period. The equivalent increases for LBT and SMMBL are 5.4 percent and 7.2 percent respectively. Even with the ten percent grace, both LBT and SMMBL exceed the TPM cost growth allowance in all three years.

Exempting the expense items over which operator management has little or no control (i.e., low control category items) would not -- on the basis of experience over the FY82-85 period -- be of benefit to any of the three Los Angeles County operators reviewed. Due to the fact that the low control category items grew, on average, at a lower rate than either high or moderate control items, each operator's systemwide cost growth (for TPM purposes) would be increased -- from 24.8 percent to 27.9 percent in the case of SCRTD, from 23.6 percent to 36.8 percent in the case of LBT, and from 29 percent to 33.9 percent in the case of

SMMBL. Exempting both moderate and low control items from the cost growth calculations (i.e., basing the assessment on high control expense items only -- approximately 60 to 70 percent of the total budget) would benefit SMMBL alone. Both SCRTD and LBT would experience a further increase in their assessed cost growth over the FY82-85 period -- to 29.8 percent and 37.7 percent respectively. SMMBL's assessed cost growth would decline from 29 percent to 25.7 percent. All are well in excess of local inflation over the same period, which was 7.3 percent.

Raising the ten percent grace above the CPI to a twenty percent grace above the CPI would help SMMBL in one year (i.e., FY84) but would not benefit the other two operators. SCRTD exceeded the CPI by 240 percent, LBT by 223 percent and SMMBL by 297 percent over the period FY 1982-85. The twenty percent grace may help other operators, however, just as it would have benefited SMMBL in FY84.

# APPENDIX

APPENDIX

TRANSIT OPERATOR BUS OPERATIONS  
OPERATING COST PER VEHICLE SERVICE HOUR  
FY 1982 - FY 1985

<u>Operator</u>	<u>Cost per Vehicle</u> <u>FY 1982</u>	<u>Service Hour</u> <u>FY 1985</u>	<u>% Change</u> <u>FY82-85</u>	<u>% Change</u> <u>in CPI-W</u> <u>FY82-85</u>
<u>L.A. County Operators</u>				
SCRTD <sup>(1)</sup>	\$54.18	\$67.60	24.8%	7.3%
LBT <sup>(1)</sup>	\$36.43	\$45.05	23.6%	7.3%
SMMBL <sup>(1)</sup>	\$32.00	\$41.27	29.0%	7.3%
<u>Large Operators</u>				
WMATA <sup>(1)(2)</sup>	\$82.80	\$108.04	30.5%	14.1%
Muni <sup>(1)</sup>	\$47.82	\$85.01	77.8%	9.7%
NYMTA <sup>(3)</sup>	\$56.71	\$73.60	29.8%	15.0%
SCRTD <sup>(1)</sup>	\$54.18	\$67.60	24.8%	7.3%
CTA <sup>(4)</sup>	\$47.66	\$56.35	18.2%	7.6%

FOOTNOTES:

1. Cost and CPI growth measured between FY82 (year ending 06/30/82) and FY85 (year ending 06/30/85).
2. WMATA's interest expense -- distributed by mode based on modal share of systemwide vehicle service hours -- accounts for approximately 20 percent of total operating costs attributed to the agency's bus operations. A large part of this expense is interest payments on revenue bonds issued to finance an extension of the agency's metrorail system. Excluding the interest expense, the operating costs per vehicle service hour for FY82 and FY85 are \$64.02 and \$85.86, respectively. The corresponding percentage change over the period is 34.1 percent.
3. Cost and CPI growth measured between FY82 (year ending 06/30/82) and CY85 (year ending 12/31/85).
4. Cost and CPI growth measured between CY82 (year ending 12/31/82) and CY85 (year ending 12/31/85).

SOURCE: Annual UMTA Section 15 Reports.