



# Annual Operations of Los Angeles County Metropolitan Transportation Authority FY 2009-10

An Economic Impact Study



Los Angeles County Economic Development Corporation

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This report was prepared by the Economic and Policy Analysis Group of the Los Angeles County Economic Development Corporation (LAEDC).

As the Southern California region’s premier economic development organization, the mission of the LAEDC is to attract, retain and grow businesses and jobs in the regions of Los Angeles County.

The LAEDC Economic and Policy Analysis Group offers objective economic and policy research for public agencies and private firms. The Analysis Group focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in water, transportation, infrastructure and environmental policy. Projects are selected based on their relevance to the *L.A. County Strategic Plan for Economic Development* and the potential for the research to shape policy that supports the LAEDC mission.

## Executive Summary

The Los Angeles County Metropolitan Transportation Authority (Metro) is a large, complex organization that is involved with all aspects of moving people and goods throughout the Southern California region.



This study estimates the economic and fiscal impact of Metro operations and of expenditures funded through subsidies to other transportation services for the fiscal year ending June 30, 2010 on the five-county Southern California region (which includes the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura), the state of California, and the United States.

Metro’s economic impact derives from expenditures made by the authority itself to its vendors and its employees. This spending plus Metro’s subsidies of transit operations and transportation infrastructure throughout Los Angeles during the fiscal year exceeded \$3 billion.

Total Metro Expenditures Fiscal Year ending June 30, 2010 (\$ millions)			
Expenditure Category	Wages and benefits	Goods and services	Total expenditures
Operations	\$ 871.4	\$ 1,295.5	\$ 2,166.9
Subsidy	384.9	503.2	888.2
<b>Total *</b>	<b>\$ 1,256.3</b>	<b>\$ 1,798.7</b>	<b>\$ 3,055.1</b>

\* May not sum due to rounding  
Source: Metro

More than \$1.2 billion was spent on wages and benefits for its own employees and the employees of its subsidized operations, and \$1.8 billion was spent on goods and services, much of which was supplied regionally.

Not all spending has an economic impact. Some spending is recorded as an expenditure but does not represent the disbursement of funds, such as inventory write-downs. Other spending is done in an exchange of assets, such as land acquisition, and is not considered to have an economic impact.

## Economic and Fiscal Impact

As these funds were re-spent by their recipients, Metro's initial impact spread throughout the regional, state and national economies. The additional demand for goods and services thus created led to still more indirect and induced jobs, income, revenues and taxes.

The total economic and fiscal impacts of Metro's operations during the fiscal year are summarized in the exhibit below. Most of the impacts fell in Southern California, where nearly all employees and over half of the vendors were located.

As shown below, Metro's \$2.6 billion of expenditures in Southern California resulted in over 51,500 jobs and \$8.1 billion in economic output, and nearly \$400 million in state and local taxes. Nationally, an additional 9,700 jobs and \$800 million in federal taxes resulted from Metro's expenditures.

<b>Total Economic Impact of Metro's Operations and Subsidy Operations Fiscal Year ending June 30, 2010</b>			
	<b>Southern California</b>	<b>California</b>	<b>United States</b>
Total net expenditures (\$ millions)	\$ 2,598.7	\$ 2,637.6	\$ 2,844.7
<b>Total Economic Impact</b>			
Employment (jobs)	51,520	53,330	61,250
Labor income (\$ millions)	\$ 3,273	\$ 3,338	\$ 4,018
Output (\$ millions)	\$ 8,114	\$ 8,276	\$ 11,336
<b>Total Fiscal Impact</b>			
Total taxes (\$ millions)	\$ 1,038	\$ 1,074	\$ 1,217
<i>State and local taxes</i>	392	406	417
<i>Federal taxes</i>	646	668	800

\* May not sum due to rounding  
Source: Estimates by LAEDC

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## I Introduction

The Los Angeles County Metropolitan Transportation Authority (Metro) serves as a public transportation operating agency and as a regional transportation planning agency for Los Angeles County. Operating the third-largest public transportation system in the nation, its service area covers 1,433 square miles. During peak hours, over 2,000 buses move county residents and commuters through the area. Metro Rail, the Authority's urban rail service, provides service between 70 stations in the county over almost 80 miles of track, with an average daily ridership of 300,000.



The authority employs more than 9,700 people in a broad range of technical specialties and services, including operators, engineers, transportation planners, safety inspectors and customer service agents. These workers include those in full-time positions, those engaged in part-time work, and additional workers hired for seasonal work.

Metro purchases goods and services worth hundreds of millions of dollars (much of it from local vendors), and helps fund the operations of sixteen other municipal bus services and of the Metrolink commuter rail service connecting Metro's system to surrounding counties. The landmark investment program of transit and highway projects funded by the voter-approved Measure R sales tax together with state and federal funds provides additional construction spending. In the fiscal year of 2010, Metro made payments to more than 2,480 vendors in United States and Canada, of which 1,467 were located in California.

In this study, the LAEDC Economic and Policy Analysis Group estimates the economic impact of Metro in the five-county Southern California region, the state of California, and the United States for the fiscal year ending June 30, 2010. The study proceeds as follows:

We outline the actual expenditures of Metro both for its own operations and for the operations of other transportation providers that it subsidizes. For each geographic region, we estimate the expenditures that were made within that region, and using this data we estimate their total economic and fiscal impacts. The total economic impacts, including employment, labor income and output, are disaggregated by industry sector. To demonstrate the reach of Metro through the region and nation, we map the geographic location of Metro's employees and vendors.

Detailed data tables, the methodology used in the analysis and a description of industry sectors can be found in the Appendix. We also provide a comparison of the results of this study to that of an earlier study completed in 2003 of Metro's operations for the fiscal year ending June 30, 2002.



## II Metro Expenditures

To estimate the economic and fiscal impact of Metro's operations and of the support it provides to other regional transportation providers, we first examine the expenditures that occur in the region and in the nation.

### Expenditures for Ongoing Operations

Metro is organized into thirteen strategic business units. Total expenditures for all business units during the fiscal year (excluding debt and interest payments) were \$2.2 billion, almost 60 percent of which was spent on goods and services, with the remainder paying for wages and benefits of employees.

Expenditures by business unit are shown below.

<b>Exhibit 2-1 Expenditures by Strategic Business Unit (\$ millions)</b>			
<b>Strategic Business Unit</b>	<b>Wages and benefits</b>	<b>Goods and services</b>	<b>Total expenditures</b>
Metro Bus Operations	\$ 597.6	\$ 439.00	\$ 1,036.6
Metro Rail Operations	120.9	72.9	193.8
Countywide Planning and Development	16.9	55.2	72.0
Construction Project Management	12.6	260.4	273.0
Exposition Metro Construction Authority	2.4	222.3	224.8
Highway Capital Management	0.0	0.4	0.4
Communications	22.4	37.8	60.2
Economic Development	3.5	19.7	23.2
Administrative Services	53.2	21.6	74.8
Financial Services	17.2	71.9	89.2
Management Audit Services	3.1	1.8	4.9
Board of Directors	3.9	14.1	17.9
Chief Executive Office	17.7	78.4	96.1
<b>Total *</b>	<b>\$ 871.4</b>	<b>\$ 1,295.5</b>	<b>\$ 2,166.9</b>

\* May not sum due to rounding  
Source: Metro

The largest unit by total expenditures is Metro Bus Operations, accounting for almost half of the authority's spending. This unit is responsible for providing bus services on over 200 routes with approximately 400 million boardings during more than 7.5 million service hours.

The second largest unit is Construction Project Management, accounting for 12.6 percent of expenditures. This unit provides engineering services and construction oversight for major construction projects, transit corridors, capital improvement projects and rail engineering service requests. Expenditures of this unit also include contract construction services.

The smallest unit by total expenditures is Highway Capital Management, responsible for short range and long range planning and programming for highway services.

Expenditures on wages and benefits during the fiscal year were \$871.4 million, almost 69 percent of which were for personnel in the Metro Bus Operations business unit. Exhibit A-1 in the Appendix presents the detail underlying this data.

Expenditures on goods and services during the fiscal year reached \$1.3 billion. These include spending on goods such as vehicles and equipment, fuel, computer supplies, office and building supplies, and on services such as contract maintenance, rail and highway construction services, professional and technical services, advertising and rent. Exhibit A-2 presents the broad categories underlying this data.

To perform our impact analysis, we eliminate some categories from these expenditures that do not have an economic impact, such as land acquisition, allowances for obsolescence, gains or losses on currency trades, and inventory adjustments. These expenditures totaled \$155.3 million, accounting for 12.0 percent of spending for goods and services and 7.2 percent of overall expenditures. Exhibit A-3 in the Appendix provides a summary of the excluded expenditures. Debt service and interest payments were not reported in the initial expenditures noted in the exhibit above.

Although more than 87 percent of Metro's expenditures occurred in California, payments were made to vendors in 40 states across the nation. Over \$59 million was sent to vendors in Alabama, \$55 million to vendors in Oregon, and \$10.4 million to vendors in Washington. Exhibit A-4 presents a complete list of payments made by state for Metro's direct operations.

We were not given detailed state-by-state payment data that is categorized by spending type. We have been advised that buses for Metro Bus Operations were purchased from manufacturers located in Alabama, and that other rolling stock such as transit vehicles were manufactured across the nation. Together, these spending categories accounted for 11.4 percent of spending on goods and services and 6.8 percent of overall expenditures.

## Expenditures for Operations and Investments of Other Transportation Providers

In addition to expenditures for its own operations, Metro is responsible for almost \$900 million in expenditures in support of transportation infrastructure and operations of other transportation providers, including independent agencies such as Metrolink and Foothill Transit and municipalities such as Santa Monica, Long Beach and the Los Angeles Department of Transportation. Metro also purchases transportation services from third-party operators. These “subsidy” expenditures are categorized into transit operations, transit capital expenditures and highway capital expenditures.

Subsidy expenditures by category are shown below.

Exhibit 2-2 Subsidy Expenditures by Category (\$ millions)			
Expenditure Category	Wages and benefits	Goods and services	Total expenditures
Transit Operations	\$ 315.8	\$ 232.0	\$ 547.9
Highway Capital	52.5	61.2	113.8
Transit Capital	16.6	210.0	226.6
<b>Total *</b>	<b>\$ 384.9</b>	<b>\$ 503.2</b>	<b>\$ 888.2</b>

\* May not sum due to rounding  
Source: Metro

Metro spent more than \$888 million during the fiscal year through other providers, a large portion of which was for transit-related capital expenditures and operations. Approximately 43 percent of the total subsidy expenditures were for wages and benefits, with the remainder for goods and services.

In our impact analysis, we assume that the expenditure patterns of these subsidized operations mirror those used by Metro in its own bus operations, transit operations, and in a combination of other business units reflecting highway capital expenditures.

## Total Expenditures Attributed to Metro

Taken together, Metro was responsible for the expenditures of more than \$3 billion during the fiscal year, in its own operations and in support of the operations of other transportation providers. More than \$1.2 billion was spent on wages and benefits for its own employees and the employees of its subsidized operations, and \$1.8 billion was spent on goods and services, much of which was supplied regionally.

<b>Exhibit 2-3</b>			
<b>Total Metro Expenditures Fiscal Year 2009-2010</b>			
<b>(\$ millions)</b>			
	<b>Wages and benefits</b>	<b>Goods and services</b>	<b>Total expenditures</b>
Operations	\$ 871.4	\$ 1,295.5	\$ 2,166.9
Subsidy	384.9	503.2	888.2
<b>Total *</b>	<b>\$ 1,256.3</b>	<b>\$ 1,798.7</b>	<b>\$ 3,055.1</b>

\* May not sum due to rounding  
Source: Metro

### III Economic and Fiscal Impact

The expenditures made by Metro have an economic impact throughout the nation. This impact is dependent on the definition of the geographic area of interest and of the composition of the initial spending. The metrics used to determine the value of this economic impact includes employment, labor income and the value of output. *Employment* numbers include full-time, part-time and seasonal employees, and the self-employed. *Labor income* is a measure of all income received by both payroll employees and the self-employed, including wages and benefits such as health insurance and pension plan contributions. *Output* is the value of the goods and services produced. For most industries, this is simply the revenues generated through sales; for others, in particular retail industries, output is the value of the services supplied. The methodology employed in estimating the total economic impacts is described in the Appendix.

Most of Metro's spending occurs in Southern California, but some purchases are made elsewhere in state or elsewhere in the nation, as discussed above. Such purchases will have limited economic impact on Southern California (although we do estimate this impact and include it in our analysis), but they will have an impact when we examine the nation as a whole.

For this reason, our estimates are prepared for three regions: the Southern California region, the state of California, and the United States. We examine each of these in turn.

Given our assumptions related to expenditures discussed in the previous section, the exhibit below presents the net expenditures for each region.

Exhibit 3-1 Expenditures by Geographic Region (\$ millions)			
	Expenditures with Economic Impact		
	Southern California	California	Nationwide
Wages and benefits	\$ 1,259.0	\$ 1,259.0	\$ 1,259.0
<i>Operations</i>	874.1	874.1	874.1
<i>Subsidies</i>	384.9	384.9	384.9
Goods and services	\$ 1,339.7	\$ 1,378.6	\$ 1,585.7
<i>Operations</i>	964.9	992.9	1,142.1
<i>Subsidies</i>	374.8	385.7	443.6
<b>Total expenditures *</b>	<b>\$ 2,598.7</b>	<b>\$ 2,637.6</b>	<b>\$ 2,844.7</b>

\* May not sum due to rounding  
Source: Metro; Estimates by LAEDC

We assume that all wages and benefits are made to residents of the Southern California region. Although we are aware that some employees reside in areas outside of this region, we do not have detailed payroll data by county or by state to make a geographic determination of payments. In any case, any geographic misallocation is likely to be trivial since of the 11,400 records of payments made, only 21 (less than 0.2 percent) were made to zip codes outside of the region.

Of all nationwide spending on goods and services, more than 87 percent occurs in California, and almost 85 percent occurs in the five-county region of Southern California.

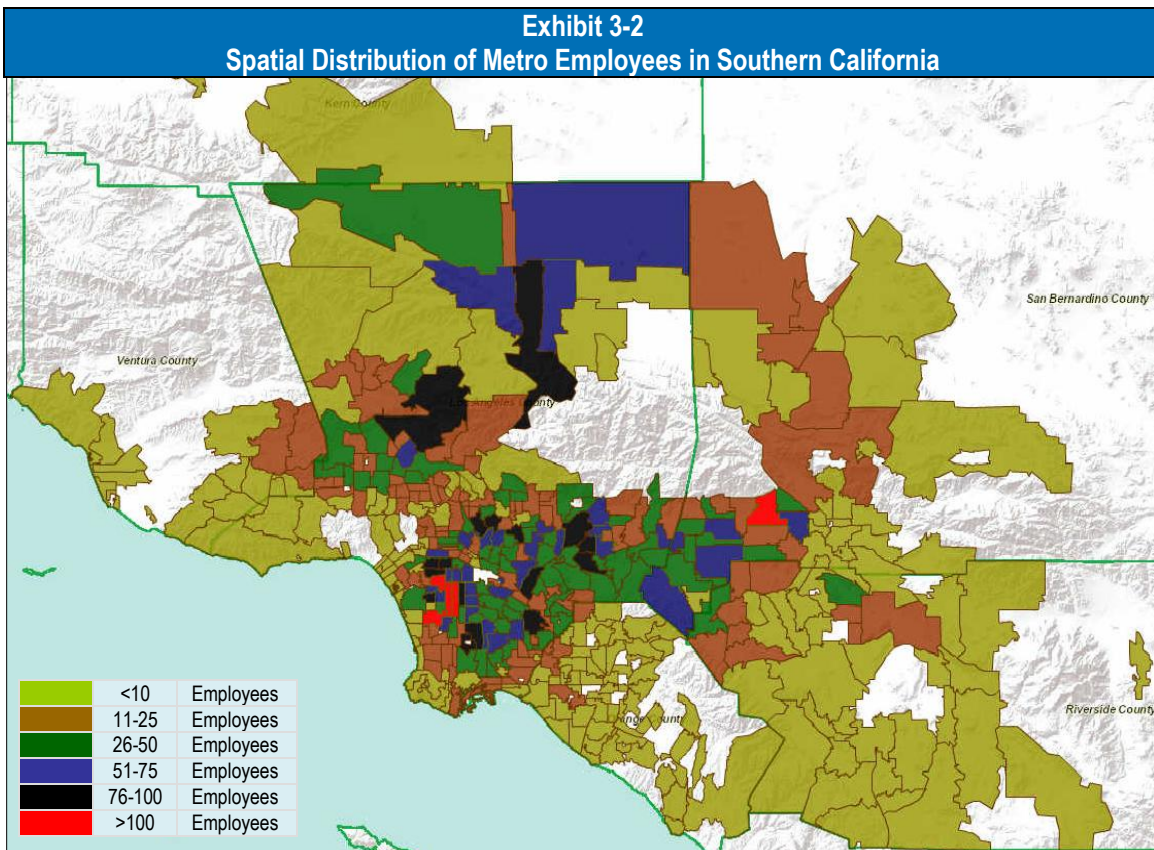
These data are used in the economic and fiscal impact analyses that follow.

## Southern California

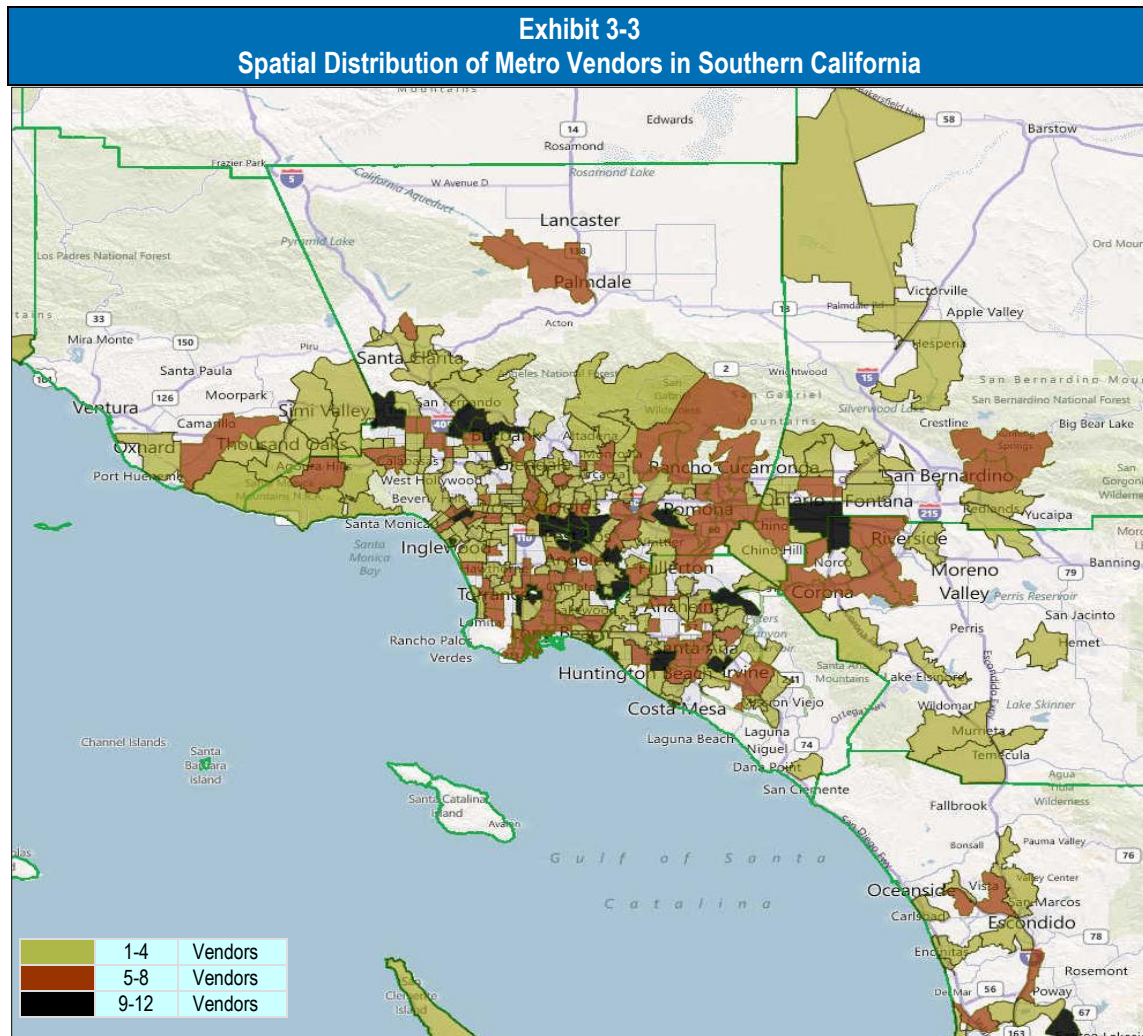
### *Spatial Distribution across the Region*

The Southern California region is defined as the five counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura, the economies of which are tightly intertwined.

Metro employs over 9,700 people, most of whom are residents of Southern California, although some also live further north in Kern County, and several commute from San Diego County. Exhibit 3-2 shows the geographic distribution of Metro’s direct employees by zip code during the fiscal year (details of the employees of subsidized operations are not known).



Vendors are similarly concentrated in major population centers of the region. Exhibit 3-3 presents the spatial distribution by zip code of vendors in Southern California from which Metro purchased goods or services for its own operations (data for the subsidized operations were not available).



Metro purchased goods and services from 2,480 vendors during the year, of which 1,310 (53 percent of total) were located in Southern California.



### ***Economic Impact in Southern California***

The total estimated economic impact of Metro's expenditures on its own operations and on its subsidies to other transportation providers in Southern California is shown in Exhibit 3-4.

<b>Exhibit 3-4 Economic Impact of Metro's Operations and Subsidies in Southern California</b>			
	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Operations	29,500	\$ 1,958.3	\$ 4,662.1
Subsidy	22,020	1,314.4	3,451.5
<b>Total *</b>	<b>51,520</b>	<b>\$ 3,272.6</b>	<b>\$ 8,113.6</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

Metro's expenditures in Southern California during the fiscal year generated \$8.1 billion in economic output in the region and supported an estimated 51,520 jobs with total labor income of nearly \$3.3 billion.

Expenditures related solely to its own operations generated \$4.7 billion in economic output in the region and supported 29,500 jobs with total labor income of almost \$2.0 billion.

Expenditures of subsidies in support of operations of other transit agencies generated almost \$3.5 billion in the region and supported an estimated 22,020 jobs with total labor income of \$1.3 billion.

Exhibits A-5 and A-6 in the Appendix present the economic impacts by strategic business unit of Metro's own operations and by expenditure category for subsidized operations are included in the Appendix.

### ***Industry Sector Impacts***

The total economic impact spills across industries in Southern California through indirect and induced effects, as shown in Exhibit 3-5.

Most of the impacts occur in the transportation, professional, scientific and technical services and construction sectors, of course, since these reflect the direct employment related to Metro. However, other sectors reap substantial employment through the indirect and induced effects, including health care and social assistance, retail industries, administrative and waste management, accommodation and food services, and financial services.

<b>Exhibit 3-5 Economic Impact in Southern California by Industry Sector</b>			
<b>Industry</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Agriculture	100	\$ 4.7	\$ 12.6
Mining	100	9.3	35.7
Utilities	140	19.8	119.0
Construction	3,810	242.5	533.4
Manufacturing	1,610	111.1	886.3
Wholesale trade	1,320	101.5	255.9
Retail trade	4,090	158.5	293.7
Transportation and warehousing	16,670	1,348.3	2,629.6
Information	560	58.1	202.7
Finance and insurance	2,080	157.2	503.3
Real estate and rental	1,660	40.6	692.0
Professional, scientific and technical services	5,730	424.2	751.4
Management of companies	270	26.5	53.1
Administrative and waste management	2,860	105.6	218.3
Educational services	850	32.3	57.8
Health care and social assistance	3,950	230.4	416.9
Arts, entertainment and recreation	770	25.3	59.5
Accommodation and food services	2,550	65.5	169.5
Other services	2,060	81.0	152.4
Government and non-NAICS	340	30.2	70.5
<b>Total *</b>	<b>51,520</b>	<b>\$ 3,272.6</b>	<b>\$ 8,113.6</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

The values in the exhibit should be interpreted as illustrative of industry effects rather than precise given model and data limitations.

### ***Fiscal Impact in Southern California***

The economic activity generated by Metro's expenditures generates tax revenues for all levels of fiscal authorities in the region. The total estimated fiscal impact is shown in Exhibit 3-6.

Total tax revenues generated in Southern California are estimated to have exceeded \$1.0 billion. Of this amount, \$392 million was earned by state and local governments (including cities and county governments), and \$645 million was earned by federal tax authorities.

Exhibit 3-6 Fiscal Impact of Metro's Operations and Subsidies in Southern California (\$ millions)			
	Local and State	Federal	Total
Operations	\$ 208.9	\$ 378.3	\$ 587.2
Subsidy	183.2	267.2	450.4
<b>Total *</b>	<b>\$ 392.1</b>	<b>\$ 645.5</b>	<b>\$ 1,037.6</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

Fiscal impacts by type of tax revenues are shown in Exhibit 3-7.

Exhibit 3-7 State and Local Taxes Generated in Southern California by Type (Combined Operations and Subsidies)	
State and Local Taxes	
Property taxes	\$ 103.8
Sales taxes	91.1
Incomes taxes	93.8
Social insurance	46.0
Fees, fines and other taxes	57.4
<b>Total state and local taxes *</b>	<b>\$ 392.1</b>
Federal Taxes	
Social insurance	\$ 357.2
Personal income taxes	207.8
Corporate profits taxes	39.3
Fees and other federal payments	22.3
Excise taxes	18.9
<b>Total federal taxes *</b>	<b>645.5</b>
<b>Total Fiscal Impact *</b>	<b>\$ 1,037.6</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

At the local and state level, property tax, income tax and sales tax revenues account for the almost three-quarters of the fiscal impact. Property taxes and income taxes are paid by households supported by wages paid directly by Metro and indirectly by its suppliers and contractors. Sales taxes are generated in the purchase of goods and services by Metro, by its suppliers and contractors, and by household spending of Metro's direct and indirect workers.

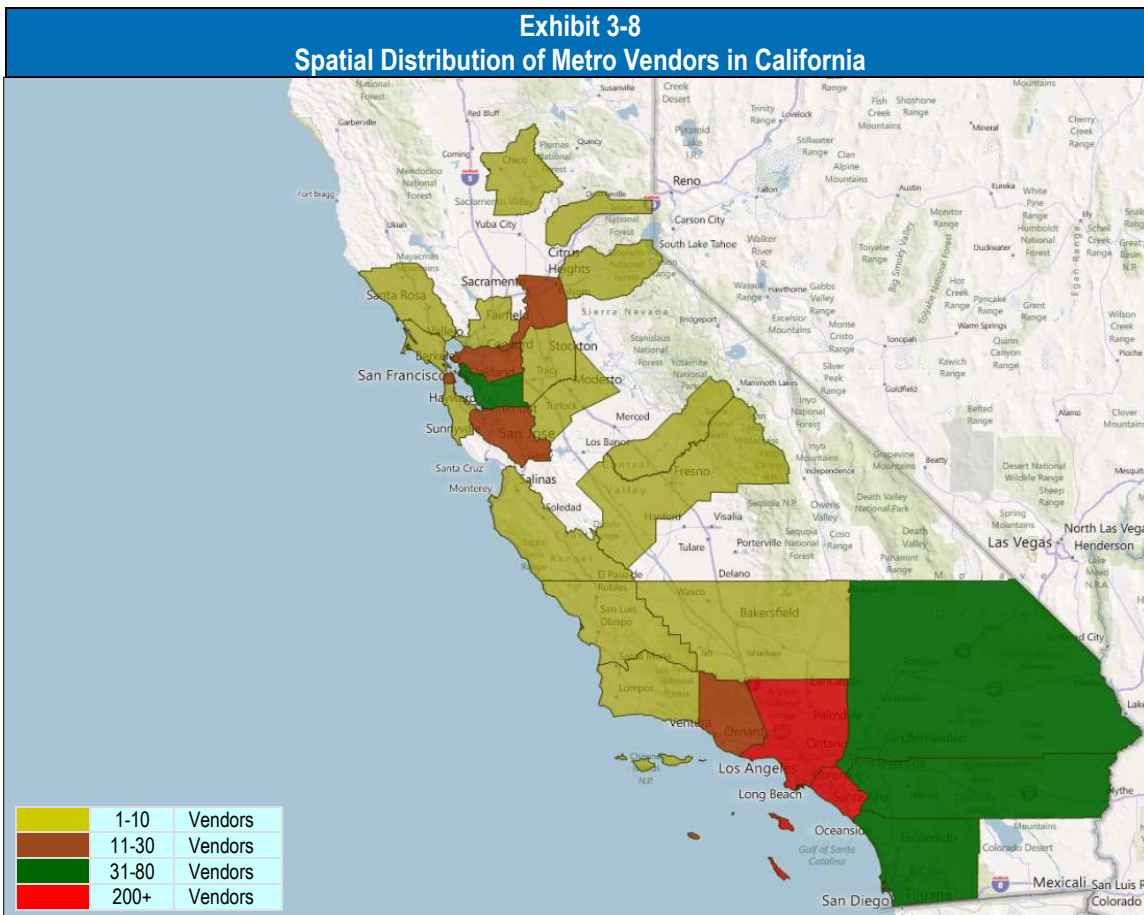
At the federal level, social insurance taxes and personal income taxes account for almost 90 percent of the fiscal impact.

Exhibits A-7 and A-8 in the Appendix present the fiscal impacts by strategic business unit of Metro's own operations and by expenditure category for subsidized operations.

## California

### *Spatial Distribution across the State*

Virtually all of Metro’s employees reside in the Southern California region, as shown above. However, Metro purchases goods and services from vendors throughout the nation. Locations of California vendors by zip code are presented in Exhibit 3-8 (for Metro’s direct operations only as data for the subsidized operations were not available).



Metro purchased goods and services from 1,467 vendors in California during the year, including 113 vendors that were located outside of the Southern California region.

### ***Statewide Economic Impact***

The total economic impact in the state of California of Metro's expenditures on its own operations and on its support of other transportation providers through its subsidies is shown in Exhibit 3-9.

<b>Exhibit 3-9</b>			
<b>Economic Impact of Metro's Operations and Subsidies in California</b>			
	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Operations	30,540	\$ 1,997.4	\$ 4,755.3
Subsidy	22,790	1,340.6	3,520.6
<b>Total *</b>	<b>53,330</b>	<b>\$ 3,338.0</b>	<b>\$ 8,275.9</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

Metro's expenditures in Southern California during the fiscal year generated \$8.3 billion in economic output in the state and supported an estimated 53,330 jobs with total labor income of \$3.3 billion.

The incremental impacts over those found in Southern California (discussed above) demonstrate the concentration of activity on the Southern California region and the ability of the region to fulfill its own supply requirements.

Exhibits A-9 and A-10 in the Appendix present the economic impacts by strategic business unit of Metro's own operations and by expenditure category for subsidized operations are included in the Appendix.

### ***Industry Sector Impacts***

The total economic impact spills across industries in California through indirect and induced effects, as shown in Exhibit 3-10.

Most of the impacts occur in the transportation, professional, scientific and technical services and construction sectors, again, since these are the direct employment related to Metro. Other sectors seeing substantial employment through the indirect and induced effects include health care and social assistance, retail industries, administrative and waste management, accommodation and food services, and financial services.

The incremental increases in employment in several sectors reflect the capture of spillover impacts that Metro's operations have throughout California.

<b>Exhibit 3-10 Economic Impact in California by Industry Sector</b>			
<b>Industry</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Agriculture	110	\$ 4.8	\$ 12.9
Mining	100	9.5	36.4
Utilities	150	20.2	121.4
Construction	3,950	247.3	544.0
Manufacturing	1,670	113.3	904.0
Wholesale trade	1,350	103.5	261.0
Retail trade	4,240	161.7	299.6
Transportation and warehousing	17,250	1,375.2	2,682.2
Information	580	59.3	206.7
Finance and insurance	2,160	160.4	513.4
Real estate and rental	1,720	41.4	705.8
Professional, scientific and technical services	5,930	432.7	766.4
Management of companies	280	27.0	54.1
Administrative and waste management	2,960	107.8	222.7
Educational services	870	32.9	59.0
Health care and social assistance	4,090	235.0	425.2
Arts, entertainment and recreation	800	25.8	60.7
Accommodation and food services	2,630	66.8	172.9
Other services	2,130	82.6	155.4
Government and non-NAICS	350	30.8	71.9
<b>Total *</b>	<b>53,330</b>	<b>\$ 3,338.0</b>	<b>\$ 8,275.9</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

The values in the exhibit should be interpreted as illustrative of industry effects rather than precise given model and data limitations.

### ***Statewide Fiscal Impact***

The total estimated fiscal impact is shown in Exhibit 3-11. These are tax revenues collected throughout the state of California.

Total tax revenues generated in California are estimated to have exceeded \$1 billion. Of this amount, \$406 million was earned by state and local governments (including cities and county governments), and \$668 million was earned by federal tax authorities.

<b>Exhibit 3-11</b>			
<b>Fiscal Impact of Metro's Operations and Subsidies in California</b>			
<b>(\$ millions)</b>			
	<b>Local and State</b>	<b>Federal</b>	<b>Total</b>
Operations	\$ 216.3	\$ 391.5	\$ 607.8
Subsidy	189.5	276.6	466.1
<b>Total *</b>	<b>\$ 405.8</b>	<b>\$ 668.1</b>	<b>\$ 1,073.9</b>

\* May not sum due to rounding  
 Source: Estimates by LAEDC

Fiscal impacts by type of tax revenues are shown in Exhibit 3-12.

<b>Exhibit 3-12</b>	
<b>State and Local Taxes Generated in California by Type</b>	
<b>(Combined Operations and Subsidies)</b>	
<b>State and Local Taxes</b>	
Property taxes	\$ 107.4
Sales taxes	94.3
Incomes taxes	97.1
Social insurance	47.6
Fees, fines and other taxes	59.4
<b>Total state and local taxes *</b>	<b>\$ 405.8</b>
<b>Federal Taxes</b>	
Social insurance	\$ 369.7
Personal income taxes	215.1
Corporate profits taxes	40.7
Fees and other federal payments	27.9
Excise taxes	19.5
<b>Total federal taxes *</b>	<b>\$ 668.1</b>
<b>Total Fiscal Impact *</b>	<b>\$ 1,073.9</b>

\* May not sum due to rounding  
 Source: Estimates by LAEDC

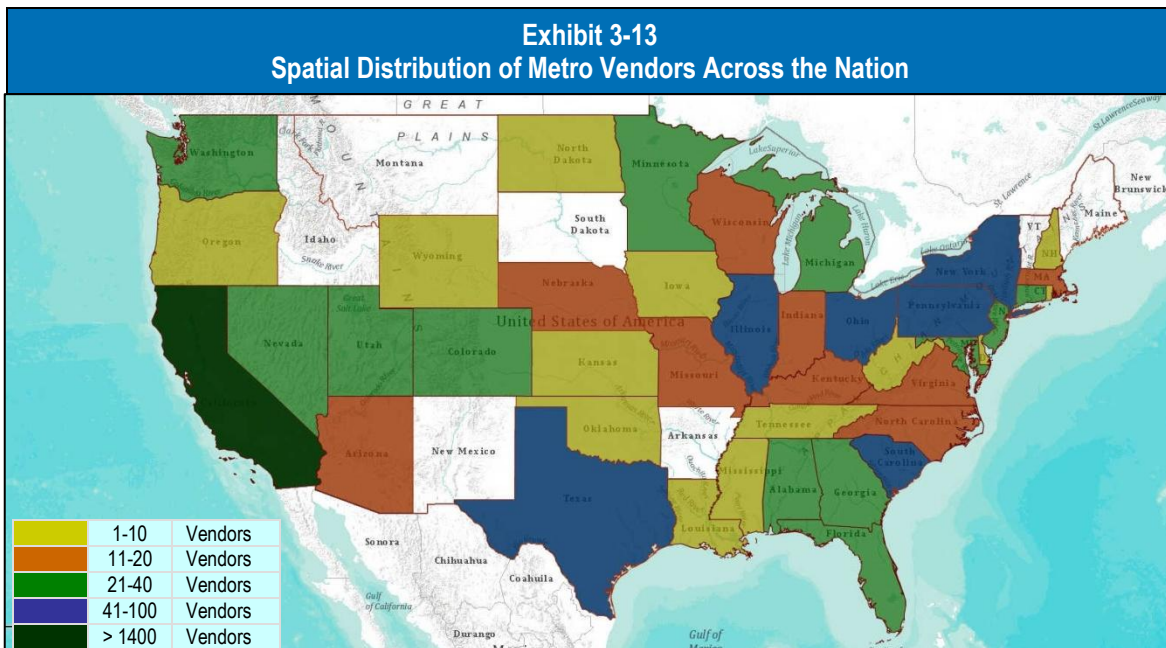
Exhibits A-11 and A-12 in the Appendix present the fiscal impacts by strategic business unit of Metro's own operations and by expenditure category for subsidized operations.



## United States

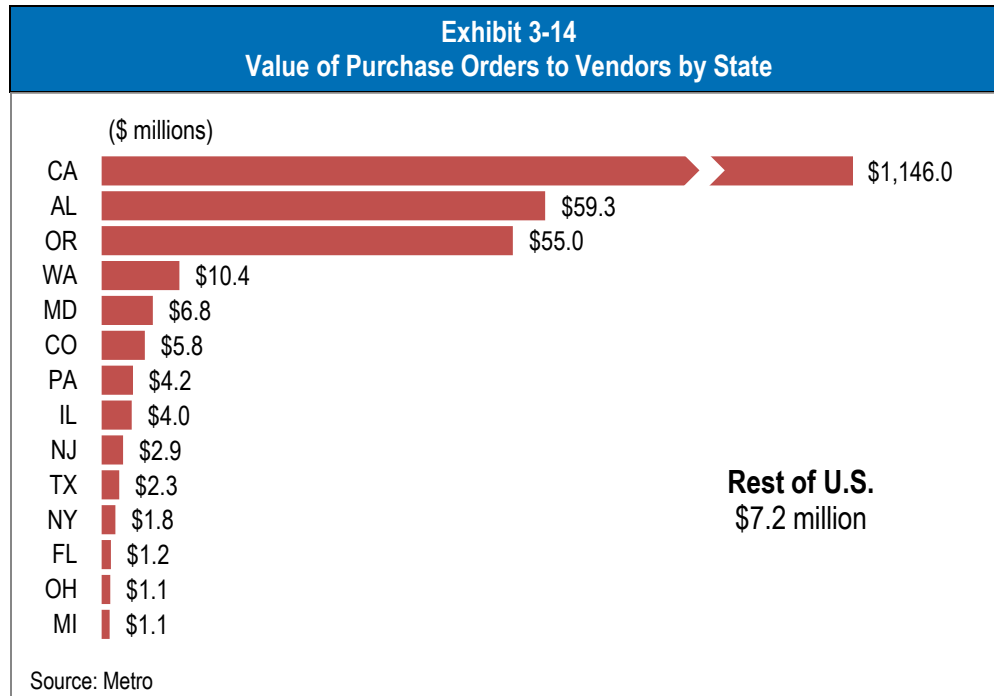
### *Spatial Distribution across the Nation*

Metro purchases goods and services from more than a thousand vendors outside of the state. Significant are purchases of vehicles such as buses and transit cars that are manufactured outside of the state. The geographic distribution of Metro’s vendors across the nation categorized by number of vendors in each state is shown in Exhibit 3-13.



More than half of all vendors, almost 1,500, were located in California, but Metro purchases goods and services from 40 states across the nation. Many suppliers are located in Illinois, New York, Ohio, Pennsylvania, South Carolina and Texas.

In addition to the *number* of vendors by state, the *values* of purchases by state vary widely. As noted, California is by far the leading provider of goods and services to Metro, with a total value of purchase orders during the fiscal year of more than \$1.1 billion. Other states supplying significant goods include Alabama, Oregon and Washington. Exhibit 3-14 displays the values of purchase orders held by Metro for those states where purchase orders total in excess of \$1 million. These values should be interpreted with caution, since the purchase orders are not always exhausted to their limit in any fiscal year.



***Nationwide Economic Impact***

The total economic impact of Metro’s expenditures on its own operations and on its subsidies of other transportation providers is shown in Exhibit 3-15. The total national impact is significantly higher than the state impact because we are able to include here the impact of the significant purchases of buses and transit vehicles in our analysis at the national level, and because most of the goods and services supplied in response to direct, indirect and induced purchases are provided within the United States.

**Exhibit 3-15**  
**Economic Impact of Metro’s Operations and Subsidies in the United States**

	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Operations	33,820	\$ 2,356.7	\$ 6,307.3
Subsidy	27,430	1,661.3	5,028.2
<b>Total *</b>	<b>61,250</b>	<b>\$ 4,018.0</b>	<b>\$ 11,335.5</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

Metro's expenditures nationwide during the fiscal year generated more than \$11.3 billion in economic output in the country and supported an estimated 61,250 jobs with total labor income of \$4 billion.

The incremental impacts over those found in California (discussed above) is due to two factors: we can now include the full economic impact of the purchase of vehicles (such as buses and railcars) outside the borders of California, and most indirect and induced impacts are likely to remain in the United States, with their effects included in our estimates.

The ongoing operations of Metro during the fiscal year generated almost 8,000 jobs in the nation outside of the state of California.

Exhibits A-13 and A-14 in the Appendix present the economic impacts by strategic business unit of Metro's own operations and by expenditure category for subsidized operations.

### *Industry Sector Impacts*

The total economic impacts by industry sector are shown in Exhibit 3-16.

<b>Exhibit 3-16 Economic Impact in the United States by Industry Sector</b>			
<b>Industry</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Agriculture	510	\$ 16.3	\$ 59.2
Mining	570	58.4	228.6
Utilities	210	31.7	192.1
Construction	3,900	251.9	550.7
Manufacturing	4,030	371.7	2,744.2
Wholesale trade	1,840	162.6	407.7
Retail trade	4,880	177.3	331.0
Transportation and warehousing	17,090	1,376.3	2,706.7
Information	780	85.0	297.8
Finance and insurance	2,580	197.7	627.3
Real estate and rental	2,180	49.0	814.6
Professional, scientific and technical services	5,940	486.9	854.3
Management of companies	530	66.7	129.5
Administrative and waste management	3,440	135.2	278.4
Educational services	940	34.4	61.1
Health care and social assistance	4,530	262.5	473.7
Arts, entertainment and recreation	1,000	30.9	71.6
Accommodation and food services	3,190	80.2	214.2
Other services	2,620	99.6	188.6
Government and non-NAICS	510	43.7	104.2
<b>Total *</b>	<b>61,250</b>	<b>\$ 4,018.0</b>	<b>\$ 11,335.5</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

The most significant incremental increase in employment over the California impacts can be found in the manufacturing sector, which, as noted, includes the manufacture of buses and railcars. Other incremental impacts include general population-serving sectors such as administrative and waste management, health care and social assistance, accommodation and food services, and retail and wholesale trade.

The values in the exhibit should be interpreted as illustrative of industry effects rather than precise given model and data limitations.

### *Nationwide Fiscal Impact*

The economic activity generated by Metro's expenditures generates tax revenues for all levels of fiscal authorities nationwide. The total estimated fiscal impact is shown in Exhibit 3-17.

<b>Exhibit 3-17</b>			
<b>Fiscal Impact of Metro's Operations and Subsidies in the United States</b>			
<b>(\$ millions)</b>			
	<b>Local and State</b>	<b>Federal</b>	<b>Total</b>
Operations	\$ 225.4	\$ 464.0	\$ 689.4
Subsidy	191.5	336.4	527.9
<b>Total *</b>	<b>\$ 416.9</b>	<b>\$ 800.4</b>	<b>\$ 1,217.3</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

Total tax revenues generated in the nation are estimated to have exceeded \$1.2 billion. Of this amount, \$417 million was earned by state and local governments (including cities and county governments), and \$800 million was earned by federal tax authorities.

Fiscal impacts by type of tax revenues are shown in Exhibit 3-18. Exhibits A-15 and A-16 in the Appendix present the fiscal impacts by strategic business unit of Metro's own operations and by expenditure category for subsidized operations.

<b>Exhibit 3-18</b>	
<b>State and Local Taxes Generated in the United States by Type</b>	
<b>(Combined Operations and Subsidies)</b>	
<b>State and Local Taxes</b>	
Property taxes	\$ 157.4
Sales taxes	97.1
Incomes taxes	47.2
Social insurance	51.8
Fees, fines and other taxes	63.4
<b>Total state and local taxes *</b>	<b>\$ 416.9</b>
<b>Federal Taxes</b>	
Social insurance	\$ 431.8
Personal income taxes	252.1
Corporate profits taxes	55.8
Fees and other federal payments	32.9
Excise taxes	27.9
<b>Total federal taxes *</b>	<b>\$ 800.4</b>
<b>Total Fiscal Impact *</b>	<b>\$ 1,217.3</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC



# Appendix

## Detailed Tables

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**Expenditures by Strategic Business Unit**

<b>Exhibit A-1 Expenditures on Wages and Benefits by Strategic Business Unit (\$ millions)</b>			
<b>Strategic Business Unit</b>	<b>Wages</b>	<b>Benefits</b>	<b>Total wages and benefits</b>
Metro Bus Operations	\$ 362.1	\$ 235.5	\$ 597.6
Metro Rail Operations	73.2	47.6	120.9
Countywide Planning and Development	10.2	6.7	16.9
Construction Project Management	7.7	5.0	12.6
Exposition Metro Construction Authority	1.5	1.0	2.4
Highway Capital Management	-	-	0.0
Communications	13.6	8.8	22.4
Economic Development	2.1	1.4	3.5
Administrative Services	32.2	20.9	53.2
Financial Services	10.4	6.8	17.2
Management Audit Services	1.9	1.2	3.1
Board of Directors	2.3	1.5	3.9
Chief Executive Office	10.7	7.0	17.7
<b>Total *</b>	<b>\$ 528.0</b>	<b>\$ 343.4</b>	<b>\$ 871.4</b>

\* May not sum due to rounding  
Source: Metro

<b>Exhibit A-2 Expenditures on Goods and Services by Strategic Business Unit (\$ millions)</b>			
<b>Strategic Business Unit</b>	<b>Goods</b>	<b>Services</b>	<b>Total goods and services</b>
Metro Bus Operations	\$ 325.9	\$ 113.1	\$ 439.0
Metro Rail Operations	36.6	36.3	72.9
Countywide Planning and Development	0.4	54.7	55.2
Construction Project Management	127.5	132.9	260.4
Exposition Metro Construction Authority	0.2	222.1	222.3
Highway Capital Management	-	0.4	0.4
Communications	14.4	23.4	37.8
Economic Development	0.7	19.0	19.7
Administrative Services	5.0	16.8	21.6
Financial Services	1.9	70.1	71.9
Management Audit Services	0.0	1.8	1.8
Board of Directors	0.1	14.0	14.1
Chief Executive Office	2.2	76.2	78.4
<b>Total *</b>	<b>\$ 515.0</b>	<b>\$ 780.5</b>	<b>\$ 1,295.5</b>

\* May not sum due to rounding  
Source: Metro



Exhibit A-3 Expenditures Excluded for Non-Economic Impact (\$ millions)	
Acquisition of buildings and structures	\$ 145.3
Acquisition of land	2.7
Currency losses / gains	0.6
Inventory obsolescence	6.1
Inventory adjustments	0.5
<b>Total spending excluded *</b>	<b>\$ 155.3</b>

\* May not sum due to rounding

Source: Metro

### *Expenditures by State*

Exhibit A-4 Expenditures for Metro Operations by State (\$ 000)			
Alabama	\$ 59,303	Nebraska	154
Arizona	192	Nevada	710
California	1,145,977	New Hampshire	3
Colorado	5,754	New Jersey	2,859
Connecticut	200	New York	1,810
Delaware	31	North Carolina	476
Florida	1,227	North Dakota	64
Georgia	814	Ohio	1,131
Illinois	4,018	Oklahoma	91
Indiana	365	Oregon	55,017
Iowa	147	Pennsylvania	4,188
Kansas	2	Rhode Island	59
Kentucky	168	South Carolina	578
Louisiana	8	Tennessee	159
Maryland	6,807	Texas	2,339
Massachusetts	83	Utah	635
Michigan	1,059	Virginia	357
Minnesota	706	Washington	10,386
Mississippi	262	West Virginia	14
Missouri	260	Wisconsin	502
<b>TOTAL:</b>			<b>\$1,308,915</b>

Source: Metro

***Economic Impacts: Southern California***

<b>Exhibit A-5 Economic Impact in Southern California by Strategic Business Unit</b>			
<b>Strategic Business Unit</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Metro Bus Operations	12,570	\$ 894.0	\$ 2,085.7
Metro Rail Operations	2,500	183.9	423.7
Countywide Planning and Development	1,140	72.0	171.1
Construction Project Management	2,190	133.7	326.6
Exposition Metro Construction Authority	3,340	200.3	492.3
Highway Capital Management	10	0.4	0.8
Communications	890	59.2	136.3
Economic Development	390	21.3	48.4
Administrative Services	1,080	78.9	175.9
Financial Services	3,570	191.5	534.2
Management Audit Services	80	5.5	11.7
Board of Directors	210	14.7	34.7
Chief Executive Office	1,540	103.0	220.6
<b>Total *</b>	<b>29,500</b>	<b>\$ 1,958.3</b>	<b>\$ 4,662.0</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

<b>Exhibit A-6 Economic Impact in Southern California by Subsidy Category</b>			
<b>Expenditure Category</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Transit Operations	12,000	\$ 738.1	\$ 1,918.1
Highway Capital	3,540	214.0	528.9
Transit Capital	6,490	362.3	1,004.5
<b>Total *</b>	<b>22,020</b>	<b>\$ 1,314.4</b>	<b>\$ 3,451.5</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

***Fiscal Impacts: Southern California***

<b>Exhibit A-7 Fiscal Impact in Southern California by Strategic Business Unit</b>			
<b>Strategic Business Unit</b>	<b>State and Local Taxes</b>	<b>Federal Taxes</b>	<b>Total</b>
Metro Bus Operations	\$ 78.3	\$ 170.4	\$ 248.7
Metro Rail Operations	18.8	35.8	54.6
Countywide Planning and Development	7.6	13.6	21.2
Construction Project Management	15.5	25.3	40.8
Exposition Metro Construction Authority	23.3	37.7	61.0
Highway Capital Management	0.0	0.1	0.1
Communications	8.0	11.7	19.7
Economic Development	2.6	4.1	26.3
Administrative Services	28.8	15.1	43.9
Financial Services	35.5	40.9	76.4
Management Audit Services	0.5	1.0	1.5
Board of Directors	1.9	3.0	4.9
Chief Executive Office	12.3	19.5	31.8
<b>Total *</b>	<b>\$ 208.9</b>	<b>\$ 378.3</b>	<b>\$ 587.2</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

<b>Exhibit A-8 Fiscal Impact in Southern California by Subsidy Category</b>			
<b>Expenditure Category</b>	<b>State and Local Taxes</b>	<b>Federal Taxes</b>	<b>Total Taxes</b>
Transit Operations	\$ 95.7	\$ 148.1	\$ 243.8
Highway Capital	26.6	41.1	67.7
Transit Capital	60.8	78.1	138.9
<b>Total *</b>	<b>\$ 183.1</b>	<b>\$ 267.3</b>	<b>\$ 450.4</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

***Economic Impacts: California***

<b>Exhibit A-9 Economic Impact in California by Strategic Business Unit</b>			
<b>Strategic Business Unit</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Metro Bus Operations	13,010	\$ 911.8	\$ 2,127.4
Metro Rail Operations	2,590	187.6	432.2
Countywide Planning and Development	1,180	73.4	174.5
Construction Project Management	2,260	136.4	333.1
Exposition Metro Construction Authority	3,460	204.3	502.2
Highway Capital Management	10	0.4	0.8
Communications	920	60.4	139.0
Economic Development	400	21.7	49.3
Administrative Services	1,120	80.5	179.4
Financial Services	3,690	195.3	544.9
Management Audit Services	80	5.6	12.0
Board of Directors	210	15.0	35.4
Chief Executive Office	1,600	105.1	225.0
<b>Total *</b>	<b>30,540</b>	<b>\$ 1,997.4</b>	<b>\$ 4,755.3</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

<b>Exhibit A-10 Economic Impact in California by Subsidy Category</b>			
<b>Expenditure Category</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Transit Operations	12,410	\$ 752.7	\$ 1,956.5
Highway Capital	3,670	218.3	539.5
Transit Capital	6,710	369.6	1,024.6
<b>Total *</b>	<b>22,790</b>	<b>\$ 1,340.6</b>	<b>\$ 3,520.6</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

***Fiscal Impacts: California***

<b>Exhibit A-11 Fiscal Impact in California by Strategic Business Unit</b>			
<b>Strategic Business Unit</b>	<b>State and Local Taxes</b>	<b>Federal Taxes</b>	<b>Total</b>
Metro Bus Operations	\$ 73.6	\$ 176.4	\$ 250.0
Metro Rail Operations	17.7	37.0	54.7
Countywide Planning and Development	7.1	14.1	21.2
Construction Project Management	14.6	26.2	40.8
Exposition Metro Construction Authority	19.1	39.0	58.1
Highway Capital Management	0.0	0.1	0.1
Communications	7.5	12.1	19.6
Economic Development	2.4	4.2	6.6
Administrative Services	27.1	15.7	42.8
Financial Services	33.4	42.3	75.7
Management Audit Services	0.5	1.0	1.5
Board of Directors	1.8	3.1	4.9
Chief Executive Office	11.5	20.2	31.7
<b>Total *</b>	<b>\$ 216.3</b>	<b>\$ 391.5</b>	<b>\$ 607.8</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

<b>Exhibit A-12 Fiscal Impact in California by Subsidy Category</b>			
<b>Expenditure Category</b>	<b>State and Local Taxes</b>	<b>Federal Taxes</b>	<b>Total Taxes</b>
Transit Operations	\$ 99.0	\$ 153.3	\$ 252.3
Highway Capital	27.5	42.5	70.0
Transit Capital	63.0	80.8	143.8
<b>Total *</b>	<b>\$ 189.5</b>	<b>\$ 276.6</b>	<b>\$ 466.1</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

***Economic Impacts: United States***

<b>Exhibit A-13 Economic Impact in the United States by Strategic Business Unit</b>			
<b>Strategic Business Unit</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Metro Bus Operations	17,260	\$ 1,164.0	\$ 3,127.9
Metro Rail Operations	3,140	220.7	551.3
Countywide Planning and Development	1,250	80.5	201.0
Construction Project Management	2,490	155.2	402.1
Exposition Metro Construction Authority	3,740	230.2	596.6
Highway Capital Management	10	0.4	0.9
Communications	1,000	67.0	161.0
Economic Development	400	23.5	55.7
Administrative Services	1,290	90.8	214.5
Financial Services	1,370	86.0	217.0
Management Audit Services	90	6.2	14.1
Board of Directors	230	16.0	39.7
Chief Executive Office	1,550	111.7	243.8
<b>Total *</b>	<b>33,820</b>	<b>\$ 2,252.2</b>	<b>\$ 5,825.6</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

<b>Exhibit A-14 Economic Impact in the United States by Subsidy Category</b>			
<b>Expenditure Category</b>	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Transit Operations	14,880	\$ 918.3	\$ 2,666.5
Highway Capital	3,990	245.7	640.2
Transit Capital	8,560	489.2	1,499.4
<b>Total *</b>	<b>27,430</b>	<b>\$ 1,653.2</b>	<b>\$ 4,806.2</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

***Fiscal Impacts: United States***

<b>Exhibit A-15</b>			
<b>Fiscal Impact in the United States by Strategic Business Unit</b>			
<b>Strategic Business Unit</b>	<b>State and Local Taxes</b>	<b>Federal Taxes</b>	<b>Total</b>
Metro Bus Operations	\$ 107.5	\$ 228.9	\$ 336.4
Metro Rail Operations	21.9	44.2	66.1
Countywide Planning and Development	6.8	15.5	22.2
Construction Project Management	14.2	30.1	44.3
Exposition Metro Construction Authority	20.4	44.3	64.7
Highway Capital Management	0.0	0.1	0.1
Communications	7.7	13.6	21.3
Economic Development	2.1	4.6	6.7
Administrative Services	8.0	17.9	25.9
Financial Services	8.6	17.4	26.1
Management Audit Services	0.5	1.2	1.7
Board of Directors	1.7	3.3	5.0
Chief Executive Office	10.3	21.6	31.9
<b>Total *</b>	<b>\$ 209.7</b>	<b>\$ 442.7</b>	<b>\$ 652.4</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

<b>Exhibit A-16</b>			
<b>Fiscal Impact in the United States by Subsidy Category</b>			
<b>Expenditure Category</b>	<b>State and Local Taxes</b>	<b>Federal Taxes</b>	<b>Total Taxes</b>
Transit Operations	\$ 105.0	\$ 187.3	\$ 292.3
Highway Capital	23.9	48.1	72.0
Transit Capital	63.8	101.9	165.7
<b>Total *</b>	<b>\$ 192.7</b>	<b>\$ 337.3</b>	<b>\$ 530.0</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

## Methodology

The estimated economic impact includes economic output, employment, and labor income, which includes wages, salaries and benefits. The total impact includes *direct, indirect and induced effects*. *Direct* employment is the personnel hired by the authority in its ongoing operations, including administrative, management, drivers, engineers, and so on. *Direct* output is the value of the services provided by the authority. *Indirect* effects are those which stem from the employment and output motivated by the purchases made by the transportation authority. For example, indirect jobs are sustained by the suppliers of the office supplies and insurance purchased by Metro. *Induced* effects are those generated by the household spending of employees whose wages are sustained by both direct and indirect spending.



We used data provided by Metro for their fiscal year 2009-10 operations and for their subsidy expenditures as direct expenditures, and estimated the indirect and induced impacts using models developed with data and software from MIG, Inc. MIG's IMPLAN system is a robust widely-used set of modeling tools that provide economic resolution from the national level down to the ZIP code level. These tools allow the estimation of the national impact of Metro's operations and expenditures in the Southern California region, and the consequent impact of spending that occurs outside of the region (such as the purchase of rolling stock and revenue vehicles) on the California economy. The expenditure data was sorted by category, such as vehicles, vehicle parts, fuel, office supplies, utilities, rent and professional services.

Our estimates for labor income and output are reported in 2010 dollars to correspond with the currency reported in the operations budgets. Labor income includes payments made to wage and salary workers and to the self-employed. Employment estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked, and are generally reported on an annual basis, i.e., the number of full and part time jobs supported in one year.

The estimated economic impacts are based on spending within the Southern California region. Some spending will take place outside of the region and in some instance generate *additional* economic impact that spills over from neighboring regions. This spillover is not captured by our single-region analysis for the Southern California region, but is captured in our statewide and national impacts.



## Comparison to 2003 LAEDC Study

The LAEDC performed a similar study of the economic impact of Metro for its operations and subsidies during the fiscal year ending June 30, 2002. In this section we outline the differences between the results of that study and the results provided in the current study and provide some insight into the underlying reasons for the differences.

Comparing the two studies is complicated by differences in methodology. Specifically:

- The 2002 study examined the impacts in Los Angeles County; the current study uses the larger five-county Southern California region.
- The 2002 study disaggregated Metro's expenditures by business "function"; the current study estimates impacts for each strategic business unit individually regardless of its function by using detailed expenditure data.
- The 2002 study used RIMS II multipliers for each of three geographies; the current study used software and data from IMPLAN to produce multipliers for three geographies: the five-county Southern California region, California and the United States.
- The 2002 study used *direct effects* multipliers to estimate the employment and earnings impacts based on Metro's direct employment and payroll and then *derived* the output impact. The current study used *final demand* multipliers for all spending.
- The RIMS II multipliers do not allow the analyst to isolate the location of the initial spending and then estimate its impact on other regions. For example, using the national multipliers, the specified spending is assumed to occur *across the nation*, not in the Southern California or Los Angeles region.



In addition to methodological variances, the difference in the impacts stems in large part from the substantially increased expenditures in 2010 compared to 2002.

Exhibit A-17 compares the results from both studies.

<b>Exhibit A-17 Comparison of FY2002 and FY2010 Results</b>			
	<b>2002 (\$ millions <sup>1</sup>)</b>	<b>2010 (\$ millions <sup>2</sup>)</b>	<b>% change</b>
Total budget	\$ 2,200	\$ 3,849	75.0
Total Metro payroll <sup>3</sup>	451	871	93.0
Metro purchases of goods and services <sup>4</sup>	n/a	1,296	n/a
Subsidies	966	888	(8.1)
Capital spending <sup>5</sup>	235	n/a	n/a
Spending analyzed <sup>6</sup>	1,652	3,055	n/a
<b>Economic and Fiscal Impacts</b>			
<i>Employment Impact:</i>			
LAC / SoCal <sup>7</sup>	31,335	51,520	64.4
CA	35,964	53,330	48.2
US	48,295	61,250	27.8
<i>Labor Income Impact <sup>8</sup></i>			
LAC / SoCal <sup>7</sup>	1,307	3,273	150.4
CA	1,536	3,338	117.3
US	1,983	4,018	102.6
<i>Output Impact:</i>			
LAC / SoCal <sup>7</sup>	3,277	8,114	147.6
CA	3,555	8,276	132.8
US	4,899	11,336	131.4
<i>Total Fiscal Impact:</i>			
LAC / SoCal <sup>7</sup>	9	1,038	11,433.3
CA	111	1,074	867.6
US	468	1,217	160.0

<sup>1</sup> Results expressed in 2002 dollars

<sup>2</sup> Results expressed in 2010 dollars

<sup>3</sup> Payroll in 2002 included wages and salaries only, while the category in 2010 includes all labor income (wages, salaries and benefits)

<sup>4</sup> The value of this category was not explicitly analyzed in the 2002 study

<sup>5</sup> Impacts in 2002 estimated for Los Angeles County; impacts in 2010 study estimated for the five-county Southern California region

<sup>6</sup> Capital expenditures were not analyzed separately in the 2010 study but were included in other expenditure categories

<sup>7</sup> Not comparable between the two studies due to differences in methodology

<sup>8</sup> Impact in this category in 2002 included only earnings impact, while impact in 2010 includes impact of all labor income (wages, salaries and benefits)

Sources: Metro; Estimates by LAEDC

## Description of Industry Sectors

The industry sectors used in this report are established by the North American Industry Classification System (NAICS). NAICS divides the economy into twenty sectors, and groups industries within these sectors according to production criteria. Listed below is a short description of each sector as taken from the sourcebook, *North American Industry Classification System*, published by the U.S. Office of Management and Budget (2007).

*Agriculture, Forestry, Fishing and Hunting:* Activities of this sector are growing crops, raising animals, harvesting timber, and harvesting fish and other animals from farms, ranches, or the animals' natural habitats.

*Mining:* Activities of this sector are extracting naturally-occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing and flotation) and other preparation at the mine site, or as part of mining activity.

*Utilities:* Activities of this sector are generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipes.

*Construction:* Activities of this sector are erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.

*Manufacturing:* Activities of this sector are the mechanical, physical, or chemical transformation of material, substances, or components into new products.

*Wholesale Trade:* Activities of this sector are selling or arranging for the purchase or sale of goods for resale; capital or durable non-consumer goods; and raw and intermediate materials and supplies used in production, and providing services incidental to the sale of the merchandise.

*Retail Trade:* Activities of this sector are retailing merchandise generally in small quantities to the general public and providing services incidental to the sale of the merchandise.

*Transportation and Warehousing:* Activities of this sector are providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.

*Information:* Activities of this sector are distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.

*Finance and Insurance:* Activities of this sector involve the creation, liquidation, or change of ownership of financial assets (financial transactions) and/or facilitating financial transactions.

*Real Estate and Rental and Leasing:* Activities of this sector are renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.

*Professional, Scientific, and Technical Services:* Activities of this sector are performing professional, scientific, and technical services for the operations of other organizations.

*Management of Companies and Enterprises:* Activities of this sector are the holding of securities of companies and enterprises, for the purpose of owning controlling interest or influencing their management decision, or administering, overseeing, and managing other establishments

of the same company or enterprise and normally undertaking the strategic or organizational planning and decision-making of the company or enterprise.

*Administrative and Support and Waste Management and Remediation Services:* Activities of this sector are performing routine support activities for the day-to-day operations of other organizations, such as: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

*Educational Services:* Activities of this sector are providing instruction and training in a wide variety of subjects. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means.

*Health Care and Social Assistance:* Activities of this sector are operating or providing health care and social assistance for individuals.

*Arts, Entertainment and Recreation:* Activities of this sector are operating facilities or providing

services to meet varied cultural, entertainment, and recreational interests of their patrons, such as: (1) producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) preserving and exhibiting objects and sites of historical, cultural, or educational interest; and (3) operating facilities or providing services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

*Accommodation and Food Services:* Activities of this sector are providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

*Other Services (except Public Administration):* Activities of this sector are providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.







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