



ECONOMIC IMPACT ANALYSIS

CONSTRUCTION IMPACT OF
METRO'S MEASURE R
TRANSPORTATION PROJECTS

UPDATE 2012

Los Angeles County Economic Development Corporation
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This report was commissioned by the Los Angeles County Metropolitan Transportation Authority.

The LAEDC Economic and Policy Analysis Group offers objective economic and policy research for public agencies and private firms. The group focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in water, transportation, infrastructure and environmental policy.

Every reasonable effort has been made to ensure that the data contained herein reflect the most accurate and timely information possible and they are believed to be reliable.

The report is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.

Executive Summary

The Los Angeles County Metropolitan Transportation Authority (Metro) has proposed a series of transportation improvement projects in Los Angeles County to be funded through tax revenues generated from the voter-approved Measure R increase in sales taxes.

The Economic and Policy Analysis Group of the Los Angeles Economic Development Corporation (LAEDC) has estimated the economic impact of \$35.3 billion of these construction projects. The total economic impacts consist of the one-time increases in total output, employment and labor income in Southern California and across the nation associated with the proposed construction activities over the next 30 years. All of the projects and most of the employment and economic activity will be in Los Angeles County; however, impacts are estimated at the regional level defined by the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura. National impacts are also estimated using multi-regional analysis, which captures the impacts of regional spending in other areas of the nation.

The exhibit below summarizes our findings.

Economic and Fiscal Impact of Metro Construction Projects		
	Southern California	National
Project spending (\$ millions)	\$ 35,327	\$ 35,327
Net budgeted spending (\$ millions)	30,828	30,828
Total Economic Impact		
Output (\$ millions)	\$ 67,260	\$ 83,920
Employment (jobs)	409,080	494,020
Compensation (\$ millions)	\$ 24,910	\$ 30,650
Total Fiscal Impact (\$ millions)		
Federal taxes	\$ 5,184	\$ 5,806
State and local taxes	2,799	3,424
Total Fiscal Impact	7,982	9,230

Sources: Metro; LAEDC
2010 dollars

Total spending, budgeted to exceed \$35.3 billion, will generate \$67.3 billion in economic output in the five-county Southern California region, adding 409,080 jobs with labor income of \$24.9 billion over the thirty year period. An additional \$16.6 billion in economic output and 85,000 jobs will be generated in other areas of the nation.

Total tax revenues collected will reach \$8.0 billion on activity occurring in Southern California. The additional economic activity generated throughout the nation will yield an additional \$1.2 billion in fiscal revenues over the thirty year period.

Budgeted Spending

The Los Angeles County Metropolitan Transportation Authority (Metro) has proposed a series of transportation improvement projects in Los Angeles County to be funded through tax revenues generated from the voter-approved Measure R increase in sales taxes. These projects are broadly categorized into two groups: highway and freeway projects, which also include grade separations and sound wall construction; and transit corridor construction. The overall budget for the projects included here is \$35.3 billion over thirty years.

The amounts by budget category are shown in the exhibit below.

Exhibit 1 Metro Transportation Improvement Construction Projects Program Budget by Category		
	\$ millions	% of total
Highway and freeway improvements, including grade separation and sound wall construction	\$ 22,448	63.5
<i>Of which: Right-of-way acquisition</i>	2,379	
Transit corridor construction	12,879	36.5
<i>Of which: Right-of-way acquisition</i>	1,372	
<i>Vehicle purchases</i>	753	
Total Budget	\$ 35,327	100.0

Source: Metro
2010 dollars

Approximately 64 percent of the total budget consists of highway and freeway improvements, and 36 percent for transit corridor extensions and improvements.

Excluded Spending

Right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets and does not generate economic activity. Similarly, since the purchase of vehicles is expected to occur outside of the five-county Southern California region, this spending is also excluded. Our methodology is fully described below. Dollar values are expressed in 2010 dollars throughout this report.

Southern California Impacts

The exhibit below summarizes the economic impact in the five-county Southern California region due to the construction activity.

Exhibit 2			
Metro Transportation Improvement Construction Projects			
Economic Impact by Category			
	Highway	Transit	Total *
Project Spending			
Budgeted spending (\$ millions)	\$ 22,448	\$ 12,879	\$ 35,327
<i>Less: Excluded spending</i>	2,379	2,125	4,505
Net budgeted spending (\$ millions)	20,079	10,748	30,828
Economic Impact in Southern California			
Output (\$ millions)	\$ 43,600	\$ 23,660	\$ 67,260
Employment (jobs)	256,260	152,820	409,080
Compensation (\$ millions)	\$ 16,070	\$ 8,840	\$ 24,910

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

During the 30-year construction period, the net budgeted spending related to the completion of Metro's proposed transportation projects, after deducting spending on right-of-way acquisition and vehicle purchases, is \$30.8 billion. Together, this spending will generate economic output of \$67.3 billion in the five-county region of Southern California (in 2010 dollars). The projects will create 409,080 part-time and full-time jobs with total labor income of \$24.9 billion.

The total economic output associated with highway and freeway projects is estimated to be \$43.6 billion. These projects include building new freeways or highways, expanding capacity on freeways and interchanges, and the construction of grade separations along major goods movement corridors and sound wall barriers. Over the 30-year period, the total number of jobs related to these projects will be 256,260 with \$16.1 billion in compensation.

Transit projects, including the construction of light and heavy rail lines, subway extensions, and the construction of bus rapid transit lines, will generate \$23.7 billion in total (direct, indirect and induced) output for the Southern California regional economy over the course of 30 years. Work on these projects will create 152,820 total jobs with over \$8.8 billion in compensation.

Industry Breakdown

Total output, employment and compensation impacts are disaggregated by industry sector in the exhibit below. This allows an estimation and industry identification of “follow-on” jobs and business revenues. The values in the exhibit should be interpreted as illustrative of the industry effects rather than precise given model and data limitations.

Exhibit 3			
Metro Transportation Improvement Construction Projects			
Economic Impact in Southern California by Industry			
Industry	Output (\$ millions)	Jobs	Labor income (\$ millions)
Agriculture	\$ 126	1,000	\$ 41
Mining	388	920	112
Utilities	491	470	89
Construction	31,040	190,380	12,893
Manufacturing	7,349	15,950	1,125
Wholesale trade	1,858	9,760	736
Retail trade	2,389	29,330	1,052
Transportation and warehousing	1,159	8,380	504
Information	1,853	3,900	393
Finance and insurance	3,360	14,340	1,086
Real estate	4,789	11,680	442
Professional, scientific and technical services	4,844	32,690	2,735
Management of companies	398	1,940	191
Administrative and waste management	1,138	18,340	612
Education services	337	5,050	193
Health care and social assistance	2,282	22,920	1,288
Arts, entertainment and recreation	432	4,800	154
Accommodations and food services	1,038	16,540	386
Other services	1,467	17,820	647
Government and non-NAICS	522	2,550	231
Total *	\$ 67,260	409,080	\$ 24,910

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

Much of the impact will occur in the construction industry, with more than half of the total (direct, indirect and induced) output earned by firms in the industry and over 45 percent of the jobs generated. However, other industries are also significantly impacted, including: manufacturing; real estate; retail trade; accommodation and food services; professional and scientific services; finance and insurance; and health care. Each of these industries will see an increase in business revenues and in the number of jobs as the effects of the increase in construction activity due to the Metro’s projects ripple through the regional economy.

Fiscal Impact

The proposed transportation projects will generate significant state, local and federal tax revenues over the 30-year construction period based on the economic activity generated in the five-county Southern California region. Income taxes will be collected on the earnings of workers, both direct and indirect, as are unemployment insurance and disability insurance taxes. Sales taxes will be generated on the purchases of materials by the construction contractors and of goods and services by all the workers whose earnings are sustained by the transportation projects. The estimated tax revenues by level of government are summarized in the exhibit below.

Exhibit 5			
Fiscal Impact of Transportation Improvement Projects			
	Highway	Transit	Total *
State and Local Taxes (\$ millions)			
Income taxes	\$ 581	\$ 306	\$ 886
Sales taxes	483	243	727
Property tax	391	270	662
Social insurance	58	31	88
Fees and fines	181	107	288
Other taxes	100	48	148
Total state and local taxes	\$ 1,795	\$ 1,004	\$ 2,799
Federal Taxes (\$ millions)			
Incomes taxes	\$ 1,569	\$ 835	\$ 2,404
Social insurance	1,614	898	2,512
Other taxes	170	98	268
Total federal taxes	\$ 3,352	\$ 1,831	\$ 5,184
Total *	\$ 5,147	\$ 2,836	\$ 7,982

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

It is estimated that direct, indirect and induced workers will pay \$2.4 billion in federal income taxes, \$2.5 billion in social security taxes and \$890 million in California state income taxes. Sales taxes generated on all purchases will reach \$727 million.

All together, almost \$8.0 billion in tax revenues will be generated in relation to the transportation construction projects. Approximately 65 percent of this will be earned at the federal level and 35 percent at the state and local level.

Impacts by Project

Economic impacts for each project are shown in the exhibit below.

Exhibit 6 Economic Impact in Southern California by Project					
Industry	Spending (\$ millions)	Output (\$ millions)	Jobs	Compensation (\$ millions)	Tax Revenue (\$ millions)
Highway Projects					
Alameda Corridor East (ACE)	\$ 1,010	\$ 2,191	12,800	\$ 803	\$ 90
Arroyo Verdugo Oper. Improvements	171	356	2,440	155	17
BNSF Grade Separations	230	499	2,920	183	21
High Desert Road Interchange	2,070	4,500	26,400	1,650	185
I-5 Carmenita Road Interchange	122	266	1,550	97	11
I-5 HOV from SR-14 to Kern County	2,380	5,177	30,240	1,897	212
I-5 HOV from SR-134 to SR-170	234	508	2,970	186	21
I-5 Widening and HOV	237	494	3,400	215	23
I-5 SR-14 HOV Direct Connector	78	161	1,100	70	8
I-605 Corridor Hot Spot Interchanges	2,178	4,738	27,700	1,736	194
I-710 Corridor Project EIR/EIS	4,630	10,060	58,800	3,690	413
Las Virgenes. Malibu Oper. Impvts	175	365	2,500	158	17
Soundwall Program	2,400	5,220	30,500	1,910	214
South Bay Ramp & Oper. Impvts	770	1,680	9,800	614	69
SR-138 Capacity Enhancements	224	487	2,840	178	20
SR-710 Gap Project	3,170	6,900	40,300	2,530	283
Total Highway *	\$ 20,079	\$ 43,600	256,260	\$ 16,070	\$ 1,795
Transit Projects					
Crenshaw-LAX Transit Corridor	\$ 1,273	\$ 2,880	18,100	\$ 1,050	\$ 119
East SF Valley North-South Corridor	132	291	1,880	109	12
Eastside Transit Corridor Phase 2	1,085	2,390	15,400	892	101
Exposition Transit Corridor Phase 2	1,024	2,250	14,520	841	96
Gold Line Foothill Extension	714	1,570	10,130	587	67
Green Line LAX Extension	151	333	2,150	124	14
Green Line South Bay Extension	252	544	3,580	207	24
Orange Line Extension	170	373	2,410	139	16
Regional Connector Transit Corridor	1,082	2,380	15,400	890	101
Sepulveda Pass Transit Corridor	986	2,170	14,000	810	92
West Santa Ana Transit Corridor	194	426	2,750	159	18
Westside Subway Ext. Segment 1	1,584	3,480	22,500	1,300	148
Westside Subway Ext. Segment 2	1,085	2,390	15,400	892	101
Westside Subway Ext. Segment 3	1,028	2,260	14,600	845	96
Total Transit *	\$ 10,758	\$ 23,660	152,820	\$ 8,840	\$ 1,004
Total *	\$ 30,828	\$ 67,260	409,080	\$ 24,910	\$ 2,799

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

National Impacts

In addition to the economic activity generated in the Southern California region, indirect and induced impacts occur across the nation. The exhibit below summarizes the economic impact in the United States due to the construction activity associated with Metro’s Measure R spending.

Exhibit 7			
Metro Transportation Improvement Construction Projects			
Economic Impact by Category			
	Highway	Transit	Total *
Project Spending			
Net budgeted spending (\$ millions)	\$ 20,079	\$ 10,748	\$ 30,828
Economic Impact in United States			
Output (\$ millions)	\$ 54,660	\$ 29,260	\$ 83,920
Employment (jobs)	321,770	172,250	494,020
Compensation (\$ millions)	\$ 19,960	\$ 10,690	\$ 30,650

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

The net budgeted spending related to the completion of Metro’s proposed transportation projects, after deducting spending on right-of-way acquisition and vehicle purchases, is \$30.8 billion, as above. This spending will generate economic output of \$83.9 billion across the nation, almost \$20 billion in areas outside of Southern California. The projects will create 494,020 part-time and full-time jobs, of which almost 85,000 are due to activity occurring outside the region.

Industry Breakdown

Total output, employment and compensation impacts at the national level are disaggregated by industry sector in the exhibit below. The values in the exhibit should be interpreted as illustrative of the industry effects rather than precise given model and data limitations.

Exhibit 8 Metro Transportation Improvement Construction Projects National Economic Impact by Industry			
Industry	Output (\$ millions)	Jobs	Earnings (\$ millions)
Agriculture	\$ 507	4,280	\$ 143
Mining	1,907	5,440	492
Utilities	1,067	1,110	161
Construction	31,154	200,250	14,179
Manufacturing	14,654	33,040	2,315
Wholesale trade	2,637	13,080	1,047
Retail trade	2,367	34,190	1,246
Transportation and warehousing	1,839	12,890	693
Information	2,141	5,710	593
Finance and insurance	4,294	16,840	1,306
Real estate	5,746	15,190	424
Professional, scientific and technical services	5,354	37,890	2,917
Management of companies	832	3,810	431
Administrative and waste management	1,531	21,900	780
Education services	414	6,140	234
Health care and social assistance	3,078	28,820	1,710
Arts, entertainment and recreation	492	6,730	214
Accommodations and food services	1,485	21,610	556
Other services	1,701	21,400	902
Government and non-NAICS	723	3,610	304
Total *	\$ 83,921	494,020	\$ 30,647

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

Much of the impact will occur in the construction industry, with about 46 percent of the total (direct, indirect and induced) output earned by firms in the industry. However, other industries also benefit through indirect and induced impacts, including: manufacturing; real estate; retail trade; accommodation and food services; professional and scientific services; finance and insurance; and health care. Each of these industries will see an increase in business revenues and in the number of jobs as the effects of the increase in construction activity due to the Metro's projects ripple through the national economy.

Fiscal Impact

By adding economic activity occurring across the nation, the fiscal impact of this activity is much larger than what was estimated at the regional level. The estimated tax revenues by level of government are summarized in the exhibit below.

Exhibit 9			
National Fiscal Impact of Transportation Improvement Projects			
	Highway	Transit	Total *
State and Local Taxes (\$ millions)			
Income taxes	\$ 548	\$ 293	\$ 842
Sales taxes	597	320	917
Property tax	653	350	1,003
Social insurance	72	39	111
Fees and fines	240	128	368
Other taxes	120	64	184
Total state and local taxes	\$ 2,230	\$ 1,194	\$ 3,424
Federal Taxes (\$ millions)			
Incomes taxes	\$ 1,582	\$ 847	\$ 2,428
Social insurance	1,960	1,049	3,009
Other taxes	241	129	369
Total federal taxes	\$ 3,782	\$ 2,024	\$ 5,806
Total *	\$ 6,012	\$ 3,218	\$ 9,230

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

It is estimated that direct, indirect and induced workers will pay \$2.4 billion in federal income taxes, \$3.0 billion in social security taxes and \$840 million in state income taxes. Sales taxes generated on all purchases will reach \$917 million.

All together, more than \$9.2 billion in tax revenues will be generated in relation to the transportation construction projects. Approximately 63 percent of this will be earned at the federal level and 37 percent at the state and local level.

Impacts by Project

National economic impacts for each project are shown in the exhibit below.

Exhibit 10 National Economic Impact by Project					
Industry	Spending (\$ millions)	Output (\$ millions)	Jobs	Compensation (\$ millions)	Tax Revenue (\$ millions)
Highway Projects					
Alameda Corridor East (ACE)	\$ 1,010	\$ 2,740	16,140	\$ 1,000	\$ 302
Arroyo Verdugo Oper. Improvements	171	465	2,740	170	51
BNSF Grade Separations	230	625	3,680	228	69
High Desert Road Interchange	2,070	5,640	33,180	2,060	620
I-5 Carmenita Road Interchange	122	333	1,960	121	37
I-5 HOV from SR-14 to Kern County	2,380	6,480	38,150	2,370	713
I-5 HOV from SR-134 to SR-170	234	636	3,740	232	70
I-5 Widening and HOV	237	646	3,800	236	71
I-5 SR-14 HOV Direct Connector	78	211	1,240	77	23
I-605 Corridor Hot Spot Interchanges	2,178	5,930	34,900	2,170	652
I-710 Corridor Project EIR/EIS	4,630	12,610	74,200	4,600	1,387
Las Virgenes. Malibu Oper. Impvts	175	477	2,810	174	52
Soundwall Program	2,400	6,530	38,500	2,390	719
South Bay Ramp & Oper. Impvts	770	2,097	12,340	766	231
SR-138 Capacity Enhancements	224	609	3,590	222	67
SR-710 Gap Project	3,170	8,63	50,810	3,150	949
Total *	\$ 20,079	\$ 54,660	321,770	\$ 19,960	\$ 6,012
Transit Projects					
Crenshaw-LAX Transit Corridor	\$ 1,273	\$ 3,470	20,400	\$ 1,270	\$ 382
East SF Valley North-South Corridor	132	360	2,120	132	40
Eastside Transit Corridor Phase 2	1,085	2,950	17,300	1,080	324
Exposition Transit Corridor Phase 2	1,024	2,780	16,400	1,020	306
Gold Line Foothill Extension	714	1,944	11,440	710	214
Green Line LAX Extension	151	412	2,430	150	45
Green Line South Bay Extension	252	686	4,040	251	75
Orange Line Extension	170	462	2,720	169	51
Regional Connector Transit Corridor	1,082	2,950	17,300	1,080	324
Sepulveda Pass Transit Corridor	986	2,684	15,800	980	295
West Santa Ana Transit Corridor	194	527	3,100	193	58
Westside Subway Ext. Segment 1	1,584	4,300	25,330	1,570	473
Westside Subway Ext. Segment 2	1,085	2,950	17,300	1,080	324
Westside Subway Ext. Segment 3	1,028	2,790	16,400	1,020	307
Total *	\$ 10,758	\$ 29,260	172,250	\$ 10,690	\$ 3,218
Total *	\$ 30,828	\$ 83,920	494,020	\$ 30,650	\$ 9,230

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

Methodology

The total estimated economic impact includes direct, indirect and induced effects. **Direct activity** includes the materials purchased and the employees hired by the Los Angeles County Metropolitan Transportation Authority (Metro) and its contractors during the project construction period. Here we account for construction workers which have been added due to the project and the materials purchased for the project. **Indirect effects** are those which stem from the employment and business revenues motivated by the purchases made by the Metro and its contractors. For example, indirect jobs are sustained by the suppliers of the office supplies and insurance purchased by contractors hired for the construction. **Induced effects** are those generated by the spending of employees whose wages are sustained by both direct and indirect spending.

We used data supplied by the Metro for initial spending, and estimated the direct, indirect and induced effects using models developed with the IMPLAN system (V3 software and 2010 data) from MIG, Inc. In all cases, we have proceeded as if the spending will take place within a single year, as is customary in this type of impact analysis. For long-term projects such as multi-year transportation improvement projects, the reader is cautioned to note that the modeling system does not account for changes in prices and wages over time. All dollar figures are quoted in 2010 dollars.

The estimated economic impacts are based on spending within the five-county Southern California region, which includes the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura. These counties are chosen as representative of the region most affected by the Metro's projects. Although most of the employment and economic activity will be in Los Angeles County, we expect that the workforce, the materials purchased, and the businesses that will be impacted by the Metro's spending are located throughout the five-county Southern California region. National economic impact estimates are produced using multi-regional analysis, which captures the impacts of regional spending in other areas of the nation.

Data limitations prevent us from estimating how much of the overall construction spending will take place outside of the region; for example, construction materials might be *purchased* locally but be manufactured elsewhere. In some instances, spending related to a project may occur in neighboring counties such as Santa Barbara or Imperial and thus generate *additional* economic impact that spills over from those neighboring counties. This spillover is not captured by our five-county analysis.

Any spending in the budget category denoted as right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets.

Job creation estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked.

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ECONOMIC IMPACT ANALYSIS

ECONOMIC IMPACT OF 45 PERCENT OF ANTICIPATED MEASURE R REVENUE

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Measure R Revenue

In 2008, the electorate in the County of Los Angeles voted in favor of Measure R to increase sales tax revenue to fund transportation improvements. Approximately 35 percent of the anticipated revenue stream will be used for transit corridor construction projects and 20 percent for highway and freeway improvements. The remaining revenue stream, approximately 45 percent of the total (and hereinafter referred to as “45% Spending”), will be allocated among a variety of uses. The allocations by category are shown in the exhibit below.

Exhibit 1 Allocation of Anticipated Measure R Revenue Stream By Category		
	\$ millions	% of total
Transit corridor construction	\$ 8,868.0	34.5
Highway and freeway improvements	5,067.4	19.7
45% Spending:		
Bus Operational Improvements	\$ 5,067.4	
Local Return	3,800.6	
Rail Operations	1,266.9	
Metrolink Capital	760.1	
Metro Rail Capital	506.7	
Administration *	385.8	
Sub-total of 45% Spending *	11,787.6	45.8
Total Anticipated Measure R Revenues	\$ 25,723.0	100.0

* Administration includes administrative costs for transit corridor construction and highway and freeway improvements, therefore sub-total exceeds 45% of overall revenue stream

Source: Metro
2010 dollars

The spending associated with this revenue stream will generate significant economic impact, not only in the region but across the state and nation. The economic activity associated with the transit corridor construction and the highway and freeway improvements have been estimated elsewhere. The remaining 45 percent allocated to other categories is considered below.

Excluded Spending

Right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets and does not generate economic activity. In this analysis, it is assumed that 5 percent of the local return (or \$161.5 million) will be used for right-of-way acquisition. The methodology is fully described below. All dollar figures are quoted in 2010 dollars.

Southern California Impacts

The exhibit below summarizes the economic impact in the five-county Southern California region of the 45 percent Measure R revenue stream, as allocated.

Exhibit 2				
Southern California Economic Impact of 45 Percent Spending by Category				
	Net Spending (\$ millions)	Output (\$ millions)	Jobs	Compensation (\$ millions)
Bus Operational Improvements	\$ 5,067	\$ 11,204	70,510	\$ 5,163
Local Return	3,639	8,068	51,910	3,119
Rail Operations	1,267	2,801	17,630	1,291
Metrolink Capital	760	1,521	10,090	618
Metro Rail Capital	507	1,014	6,730	412
Administration	386	1,001	6,360	457
Total *	\$ 11,626	\$ 25,609	163,230	\$ 11,059

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

During the 30-year period, the net spending related to the 45 percent of Measure R revenues not allocated to highway and transit projects, after deducting spending on right-of-way acquisition, is \$11.6 billion. This spending will generate economic output of \$25.6 billion in the five-county region of Southern California (in 2010 dollars) and support 163,230 part-time and full-time jobs with total labor income of \$11.1 billion.

Fiscal Impact

The total economic activity in the Southern California region will generate significant state, local and federal tax revenues. Income taxes will be collected on the earnings of workers, both direct and indirect, as are unemployment insurance and disability insurance taxes. Sales taxes will be generated on the purchases of materials by the construction contractors and of goods and services by all the workers whose earnings are sustained by the transportation projects. The estimated tax revenues by level of government are summarized in Exhibit 3.

It is estimated that direct, indirect and induced workers and business will pay \$453 million in California corporate profits taxes and personal income taxes and \$1.2 billion in federal income taxes. Property taxes will reach \$278 million, and sales taxes generated on all purchases will reach \$248 million.

All together, almost \$4.2 billion in tax revenues will be generated in relation to the 45 percent of Measure R revenue stream. Approximately 70 percent of this will be earned at the federal level and 30 percent at the state and local level.

Exhibit 3	
Southern California Fiscal Impact of 45 Percent Spending by Type	
State and Local Taxes (\$ millions)	
Income taxes	\$ 453
Sales taxes	248
Property tax	278
Social insurance	63
Fees, fines and other taxes	208
Total state and local taxes	\$ 1,251
Federal Taxes (\$ millions)	
Incomes taxes	\$ 1,183
Social insurance	1,652
Other taxes	100
Total federal taxes	\$ 2,935
Total *	\$ 4,186

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

Tax revenues by category are shown below.

Exhibit 4			
Southern California Fiscal Impact of 45 Percent Spending by Category			
	State and Local Taxes (\$ millions)	Federal Taxes (\$ millions)	Total Tax Revenues (\$ millions)
Bus Operational Improvements	\$ 576	\$ 1,506	\$ 2,082
Local Return	355	691	1,046
Rail Operations	144	376	521
Metrolink Capital	73	139	212
Metro Rail Capital	49	93	141
Administration	53	131	183
Total *	\$ 1,251	\$ 2,935	\$ 4,186

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

Industry Breakdown

Total output, employment and compensation impacts are disaggregated by industry sector in Exhibit 5. This allows an estimation and industry identification of “follow-on” jobs and business revenues.

Exhibit 5			
Southern California Economic Impact of 45 Percent Spending by Industry Sector			
Industry	Output (\$ millions)	Jobs	Labor income (\$ millions)
Agriculture	\$ 40	280	\$ 17
Mining	85	320	38
Utilities	405	530	81
Construction	3,895	24,750	1,562
Manufacturing	1,914	3,560	261
Wholesale trade	519	3,030	230
Retail trade	878	11,560	415
Transportation and warehousing	9,200	56,340	5,251
Information	575	1,390	124
Finance and insurance	1,474	7,030	434
Real estate	1,899	4,430	131
Professional, scientific and technical services	1,324	9,630	792
Management of companies	107	590	56
Administrative and waste management	643	8,580	319
Education services	174	2,340	105
Health care and social assistance	1,152	11,410	663
Arts, entertainment and recreation	161	2,180	62
Accommodations and food services	460	7,330	169
Other services	490	6,870	248
Government and non-NAICS	217	1,060	98
Total *	\$ 25,609	163,230	\$ 11,059

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

Much of the impact will occur in the transportation sector, with approximately 35 percent of the total (direct, indirect and induced) output earned by firms and jobs generated in the industry. However, other industries are also significantly impacted, including: construction, professional, scientific and technical services, health care and social assistance, and retail trade. Each of these industries will see an increase in business revenues and in the number of jobs as the effects of the increase in activity due to this spending ripple through the regional economy.

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

National Impacts

In addition to the economic activity generated in the Southern California region, indirect and induced impacts occur across the nation. The exhibit below summarizes the economic impact in the United States due to the 45 percent Measure R revenue stream, as allocated.

Exhibit 6 National Economic Impact of 45 Percent Spending by Category				
	Net Spending (\$ millions)	Output (\$ millions)	Jobs	Compensation (\$ millions)
Bus Operational Improvements	\$ 5,067	\$ 13,815	89,790	\$ 5,955
Local Return	3,639	9,879	62,050	3,762
Rail Operations	1,267	3,454	22,450	1,489
Metrolink Capital	760	1,903	12,970	722
Metro Rail Capital	507	1,268	8,650	481
Administration	386	1,178	7,660	509
Total *	\$ 11,626	\$ 31,497	203,550	\$ 12,918

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

During the 30-year period, the net spending related to the 45 percent of Measure R revenues not allocated to highway and transit projects, after deducting spending on right-of-way acquisition, is \$11.6 billion. This spending will generate economic output of \$31.5 billion in the nation (in 2010 dollars) and support 203,550 part-time and full-time jobs across the nation with total labor income of \$12.9 billion. Thus, more than 40,000 jobs will be generated in the US outside of Southern California.

Fiscal Impact

By adding economic activity occurring across the nation, the fiscal impact of this activity is larger than what was estimated at the regional level. The estimated tax revenues by level of government are summarized in Exhibit 7.

It is estimated that direct, indirect and induced workers and business will pay \$461 million in state corporate profits taxes and personal income taxes and \$1.3 billion in federal income taxes. Property taxes will reach \$357 million, and sales taxes generated on all purchases will reach \$346 million.

All together, more than \$4.77 billion in tax revenues will be generated nationally in relation to the 45 percent of Measure R revenue stream. Approximately 69 percent of this will be earned at the federal level and 31 percent at the state and local level.

Exhibit 7	
National Fiscal Impact of 45 Percent Spending by Type	
State and Local Taxes (\$ millions)	
Income taxes	\$ 461
Sales taxes	346
Property tax	357
Social insurance	95
Fees, fines and other taxes	243
Total state and local taxes	\$ 1,502
Federal Taxes (\$ millions)	
Incomes taxes	\$ 1,309
Social insurance	1,837
Other taxes	124
Total federal taxes	\$ 3,270
Total *	\$ 4,772

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

Tax revenues by spending category are shown below.

Exhibit 8			
National Fiscal Impact of 45 Percent Spending by Category			
	State and Local Taxes (\$ millions)	Federal Taxes (\$ millions)	Total Tax Revenues (\$ millions)
Bus Operational Improvements	\$ 678	\$ 1,674	\$ 2,352
Local Return	458	769	1,227
Rail Operations	169	418	588
Metrolink Capital	83	161	243
Metro Rail Capital	55	107	162
Administration	61	141	200
Total *	\$ 1,502	\$ 3,270	\$ 4,772

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

Industry Breakdown

Total output, employment and compensation impacts at the national level are disaggregated by industry sector in the exhibit below. The values in the exhibit should be interpreted as illustrative of the industry effects rather than precise given model and data limitations.

Exhibit 9			
National Economic Impact of 45 Percent Spending by Industry Sector			
Industry	Output (\$ millions)	Jobs	Earnings (\$ millions)
Agriculture	\$ 237	2,060	\$ 60
Mining	356	1,120	114
Utilities	566	860	116
Construction	3,934	28,760	1,794
Manufacturing	4,339	9,470	669
Wholesale trade	756	4,190	327
Retail trade	986	14,890	474
Transportation and warehousing	9,517	61,180	5,380
Information	769	2,180	186
Finance and insurance	1,926	8,660	603
Real estate	2,193	6,390	142
Professional, scientific and technical services	1,494	10,880	862
Management of companies	254	1,230	139
Administrative and waste management	765	10,460	375
Education services	206	2,940	121
Health care and social assistance	1,498	15,430	847
Arts, entertainment and recreation	198	3,080	78
Accommodations and food services	627	9,980	221
Other services	591	8,330	298
Government and non-NAICS	286	1,450	115
Total *	\$ 31,497	203,550	\$ 12,918

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

Much of the impact will occur in the transportation sector, with 30 percent of the total (direct, indirect and induced) output earned by firms and jobs generated in the industry. However, other industries are also significantly impacted, including: construction, professional, scientific and technical services, health care and social assistance, and retail trade.

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

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 and its contractors. 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 supplied by Metro for the total anticipated revenue stream and its allocation among categories. Each category of spending was modeled using expenditure patterns from one or more business units of Metro's operations, as described below. The direct, indirect and induced effects were estimated using models developed with the IMPLAN system (V3 software and 2010 data) from MIG, Inc.

In all cases, we have proceeded as if the spending will take place within a single year, as is customary in this type of impact analysis. For long-term projects such as multi-year transportation improvement projects, the reader is cautioned to note that the modeling system does not account for changes in prices and wages over time. All dollar figures are quoted in 2010 dollars.

The estimated economic impacts are based on spending within the five-county Southern California region, which includes the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura. These counties are chosen as representative of the region most affected by the Metro's projects. Although most of the employment and economic activity may be in Los Angeles County, we expect that the workforce, the materials purchased, and the businesses that will be impacted by Measure R spending are located throughout the five-county Southern California region.

National economic impact estimates are produced using multi-regional analysis, which captures the impacts of regional spending in other areas of the nation.

Data limitations prevent us from estimating how much of the overall spending will take place outside of the region; for example, construction materials might be *purchased* locally but be manufactured elsewhere. In some instances, spending related to a project may occur in neighboring counties such as Santa Barbara or Imperial and thus generate *additional* economic impact that spills over from those neighboring counties. This spillover is not captured by our five-county analysis.

Any spending in the budget category denoted as right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets.

Job creation estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked.

Expenditure Patterns

Metro provided the following guidance on the expenditure patterns for the 45 percent of Measure R revenues not spent directly on transit corridor and highway construction projects:

Bus Operational Improvements: 20% of Measure R revenues are set aside for transit operating improvements. The economic impact of this spending was estimated under the following assumptions:

- 70 percent of the operational improvement funds were allocated following the expenditure patterns of Metro's Operations business unit
- 30 percent of the operational improvement funds were allocated following the expenditure patterns of Metro's transit subsidy funds

The expenditure patterns referenced here are detailed in *Annual Operations of Los Angeles County Metropolitan Transportation Authority FY2012-11: Economic Impact Analysis* produced by the LAEDC (the "FY10/11 Operations Analysis").

Local Return: 15% of Measure R revenues are set aside for the Local Return program, which provides both operational subsidies and capital project funding to local municipalities. The FY2012 Local Return Expenditure Report was used to allocate the estimated local return spending into two categories: operations and capital spending. The economic impact of the operations spending was estimated using the spending patterns of Metro's Operations business unit; the economic impact of the capital spending was estimated as roadwork spending.

Rail Operations: 5% of total Measure R revenues are set aside to support rail operations. The economic impact of this spending was modeled using the spending patterns of Metro's Operations business unit, as detailed in the FY10/11 Operations Analysis.

Metrolink Capital: 3% of total Measure R revenues are set aside to support capital projects for the Metrolink system. The economic impact of this spending was modeled using the spending patterns of Metro's Construction Project Management unit, as detailed in the FY10/11 Operations Analysis.

General Capital for Metro Rail: 2% of total Measure R revenues are set aside to support capital projects for Metro's rail system. The economic impact of this spending was modeled using the spending patterns of Metro's Construction Project Management unit, as detailed in the FY10/11 Operations Analysis.

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ANNUAL OPERATIONS OF
LOS ANGELES COUNTY
METROPOLITAN
TRANSPORTATION AUTHORITY
FY 2010-11

ECONOMIC IMPACT ANALYSIS

ECONOMIC AND POLICY ANALYSIS GROUP
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This report was commissioned by The Los Angeles County Metropolitan Transportation Authority.

The LAEDC Economic and Policy Analysis Group offers objective economic and policy research for public agencies and private firms. The group focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in water, transportation, infrastructure and environmental policy.

Every reasonable effort has been made to ensure that the data contained herein reflect the most accurate and timely information possible and they are believed to be reliable.

The report is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.

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, 2011 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 \$3.2 billion.

Total Metro Expenditures Fiscal Year ending June 30, 2011 (\$ millions)			
Expenditure Category	Wages and benefits	Goods and services	Total expenditures
Operations	\$ 861.1	\$ 1,500.7	\$ 2,361.8
Subsidy	464.2	420.0	884.2
Total *	\$ 1,325.3	\$ 1,920.7	\$ 3,246.0

* May not sum due to rounding
Source: Metro

More than \$1.3 billion was spent on wages and benefits for its own employees and the employees of its subsidized operations, and \$1.9 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 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. The total of these items was \$407.2 million.

The adopted budget for the authority was \$3,492 million, net of debt service. This is \$246 million higher than the \$3,246 million used for this analysis. Budgets are plans and there are inevitably variances between them and the final expenditures. In this case, the final expenditure was \$246 million below the adopted budget. According to the agency’s FY11 Financial Statements, “The favorable variance in expenditures compared to budget was due to less transportation subsidies and expenditures related to transit planning and joint development projects.”

Economic and Fiscal Impact

Metro’s initial impact spread throughout the regional, state and national economies, as these funds were being spent by its recipients. The additional demand for goods and services thus supported more indirect and induced jobs, income, revenues and taxes.

Most of the economic activities associated with Metro’s operations took place in Southern California, where nearly all employees and most of the vendors were located. The total economic and fiscal impacts of Metro’s operations during the fiscal year are summarized in the exhibit below.

Total Economic Impact of Metro’s Operations and Subsidy Operations			
Fiscal Year ending June 30, 2011			
	Southern California	California	United States
Total net expenditures (\$ millions)	\$ 2,518	\$ 2,562	\$ 2,677
Total Economic Impact			
Employment (jobs)	38,850	40,240	49,120
Labor income (\$ millions)	\$ 2,726	\$ 2,830	\$ 3,136
Output (\$ millions)	\$ 6,005	\$ 6,321	\$ 7,432
Total Fiscal Impact			
Total taxes (\$ millions)	\$ 1,048	\$ 1,081	\$ 1,176
<i>State and local taxes</i>	308	322	350
<i>Federal taxes</i>	739	759	826

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

Metro’s \$2.5 billion of expenditures in Southern California supported 38,850 jobs with \$2.7 billion in labor income and \$6.0 billion in total economic output. State and local tax revenues reached \$308 million. Nationally, an additional 10,270 jobs and \$826 million in federal taxes resulted from Metro’s expenditures.

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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, more than 2,200 buses move county residents and commuters through the area. With over 1.1 million average weekday riders, total ridership in the fiscal year was 357,258,700. Metro Rail, the Authority's urban rail service, provides service between 86 stations in the county over 95 miles of track, with an average weekday ridership of 307,000.

The authority employs more than 9,000 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 1,269 vendors in United States, Canada, Australia, France and Italy of which 908 were located in California.

In this report, 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, 2011. 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.

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 61 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.

Exhibit 2-1 Expenditures by Strategic Business Unit (\$ millions)			
Strategic Business Unit	Wages and benefits	Goods and services	Total expenditures
Metro Operations	\$ 706.7	\$ 352.2	\$ 1,067.3
Construction Project Management	15.3	254.5	269.9
Financial Services	16.0	246.0	262.0
Exposition Metro Construction Authority	3.2	231.9	235.2
Economic Development	2.8	154.5	157.2
Chief Executive Office	22.9	77.6	100.8
Administrative Services	50.5	21.6	72.6
Highway Capital Management	2.9	68.4	71.4
Countywide Planning and Development	14.8	54.1	69.0
Communications	19.8	27.0	47.0
Board of Directors	3.8	10.6	14.5
Management Audit Services	2.4	2.1	4.6
Total *	\$ 861.1	\$ 1,500.7	\$ 2,361.8

* May not sum due to rounding
Source: Metro

The largest unit by total expenditures is Metro 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, and rail services with an average daily ridership of 307,000.

The second largest unit is Construction Project Management, accounting for almost \$270 million or 12.2 percent of total 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.

Expenditures on wages and benefits during the fiscal year were \$861.1 million, over 82 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 \$1.5 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 \$407.2 million, accounting for 27.1 percent of spending for goods and services and 17.2 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 89 percent of Metro's expenditures occurred in California, payments were made to vendors in 40 states across the nation. Nearly \$55 million was sent to vendors in Alabama, \$9.1 million to vendors in Washington, and \$8.1 million to vendors in Ohio. 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 Operations were purchased from manufacturers located in Alabama, and that rolling stock such as transit vehicles were manufactured overseas.

Expenditures for Operations and Investments of Other Transportation Providers

In support of transportation infrastructure and operations of other transportation providers, Metro is also responsible for expenditures of independent agencies in the Southern California region 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. “Subsidy” spending is 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	\$ 376.4	\$ 187.7	\$ 564.1
Highway Capital	12.6	160.9	173.5
Transit Capital	75.2	71.4	146.6
Total *	\$ 464.2	\$ 420.0	\$ 884.2

* May not sum due to rounding
Source: Metro

Metro spent more than \$884 million during the fiscal year through other providers, a large portion of which was for transit-related capital expenditures and operations. Approximately 52 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 \$3.1 billion during the fiscal year, in its own operations and in support of the operations of other transportation providers. More than \$1.3 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.

Exhibit 2-3			
Total Metro Expenditures Fiscal Year 2009-2010			
(\$ millions)			
	Wages and benefits	Goods and services	Total expenditures
Operations	\$ 861.1	\$ 1,500.7	\$ 2,361.8
Subsidy	464.2	420.0	884.2
Total *	\$ 1,325.3	\$ 1,920.7	\$ 3,246.0

* May not sum due to rounding
Source: Metro

III Economic and Fiscal Impact

Metro's purchases have an economic impact not only in Southern California but throughout the nation. The composition of initial spending and the size of the geographic area of interest will determine the level of economic and fiscal impacts. 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	\$ 1,325.3	\$ 1,325.3	\$ 1,325.3
<i>Operations</i>	861.1	861.1	861.1
<i>Subsidies</i>	464.2	464.2	464.2
Goods and services	\$ 1,182.3	\$ 1,226.1	\$ 1,341.3
<i>Operations</i>	793.6	824.9	922.7
<i>Subsidies</i>	388.8	401.2	418.7
Total expenditures *	\$ 2,507.6	\$ 2,551.4	\$ 2,666.6

* 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.

Of all nationwide spending on goods and services that have an economic impact, more than 91 percent occurs in California, and 88 percent occurs in the five-county region of Southern California.

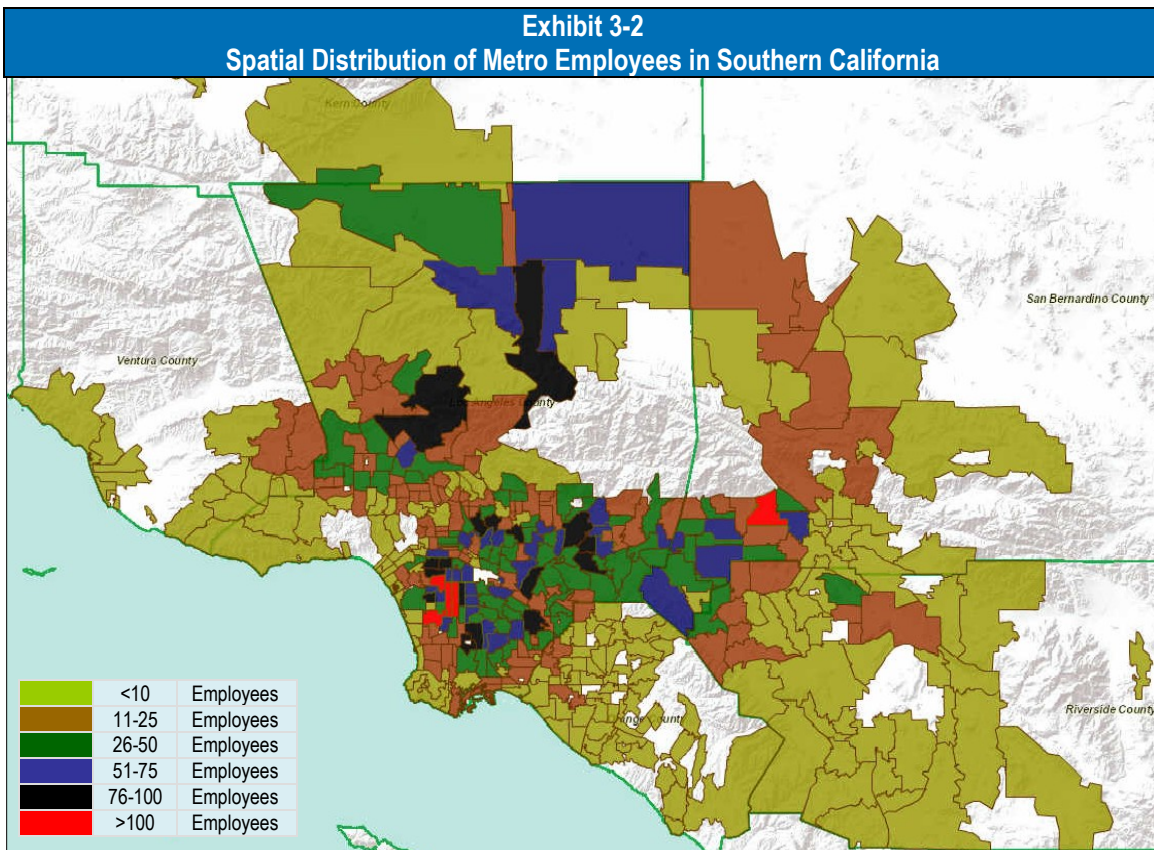
These data are used in the economic and fiscal impact analyses that follow.

Southern California

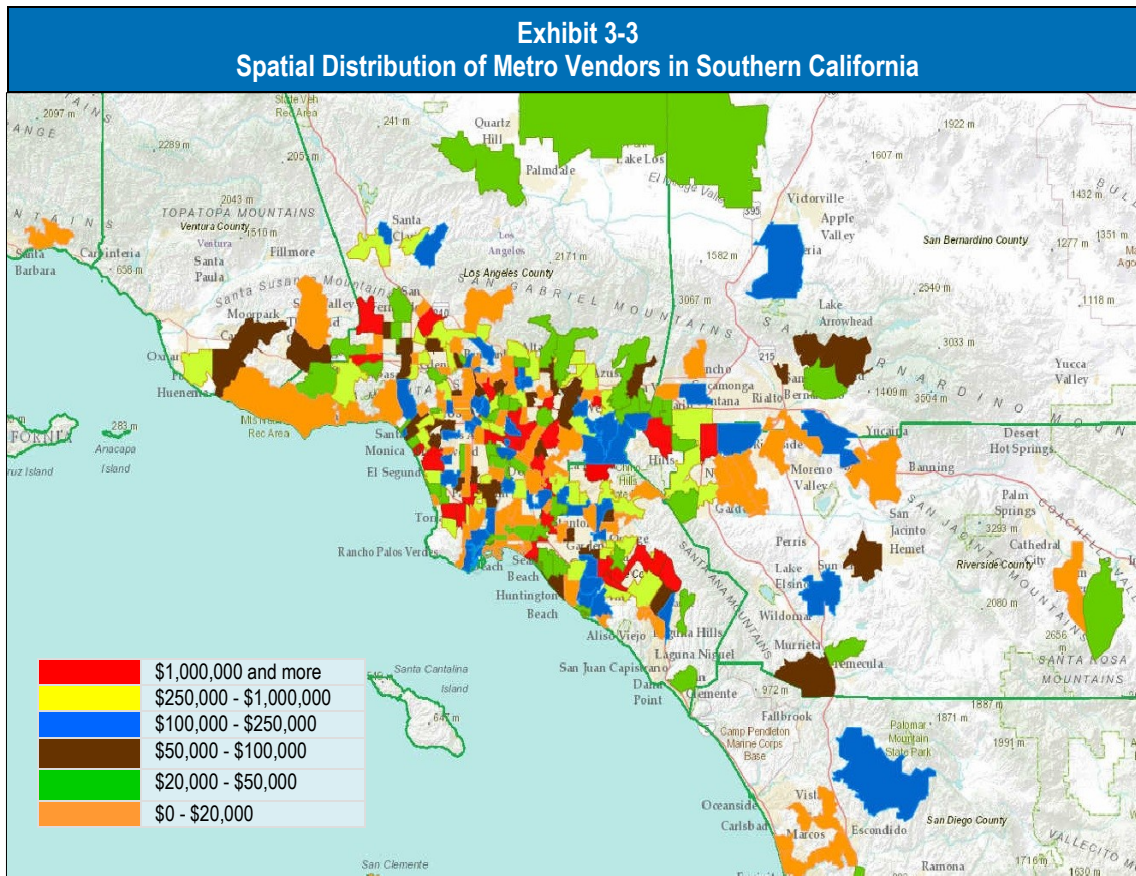
Spatial Distribution across the Region

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 employed over 9,700 people during the fiscal year, 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 1,420 vendors during the year, of which 1,000 (or 70 percent of the 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.

Exhibit 3-4 Economic Impact of Metro’s Operations and Subsidies in Southern California			
	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Operations	26,230	\$ 1,833.2	\$ 4,069.8
Subsidy	12,630	893.1	1,975.2
Total *	38,850	\$ 2,726.3	\$ 6,045.0

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

Metro’s expenditures in Southern California during the fiscal year generated over \$6 billion in economic output in the region and supported an estimated 38,850 jobs with total labor income of \$2,726 billion.

Expenditures related solely to its own operations generated a little over \$4 billion in economic output in the region and supported 26,230 jobs with total labor income of \$1.833 billion.

Expenditures of subsidies in support of operations of other transit agencies generated almost \$2 billion in the region and supported an estimated 12,630 jobs with total labor income of \$893 million.

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.

Exhibit 3-5 Economic Impact in Southern California by Industry Sector			
Industry	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Agriculture	60	\$ 4.0	\$ 9.2
Mining	70	8.0	18.0
Utilities	130	19.8	98.0
Construction	2,180	139.9	353.2
Manufacturing	660	49.2	387.1
Wholesale trade	660	50.6	112.7
Retail trade	2,750	99.0	209.1
Transportation and warehousing	15,310	1,432.5	2,506.1
Information	350	31.5	146.1
Finance and insurance	2,060	134.4	407.4
Real estate and rental	1,170	32.7	478.1
Professional, scientific and technical services	3,650	305.3	488.3
Management of companies	130	12.7	24.3
Administrative and waste management	2,140	80.9	163.6
Educational services	570	25.8	42.9
Health care and social assistance	2,800	163.5	285.0
Arts, entertainment and recreation	540	15.4	39.8
Accommodation and food services	1,800	41.7	113.5
Other services	1,580	55.4	109.8
Government and non-NAICS	260	24.1	52.8
Total *	38,850	\$ 2,726.3	\$ 6,045.0

* 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, \$308.5 million was earned by state and local governments (including cities and county governments), and \$739.4 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	\$ 207.7	\$ 492.5	\$ 700.1
Subsidy	100.9	247.0	347.8
Total *	\$ 308.5	\$ 739.4	\$ 1,048.0

* 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	\$ 67.4
Sales taxes	60.0
Incomes taxes	113.1
Social insurance	16.1
Fees, fines and other taxes	51.8
Total state and local taxes *	\$ 308.5
Federal Taxes	
Social insurance	\$ 421.9
Personal income taxes	244.6
Corporate profits taxes	48.7
Fees and other federal payments	12.5
Excise taxes	11.8
Total federal taxes *	739.4
Total Fiscal Impact *	\$ 1,048.0

* 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 more than 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.

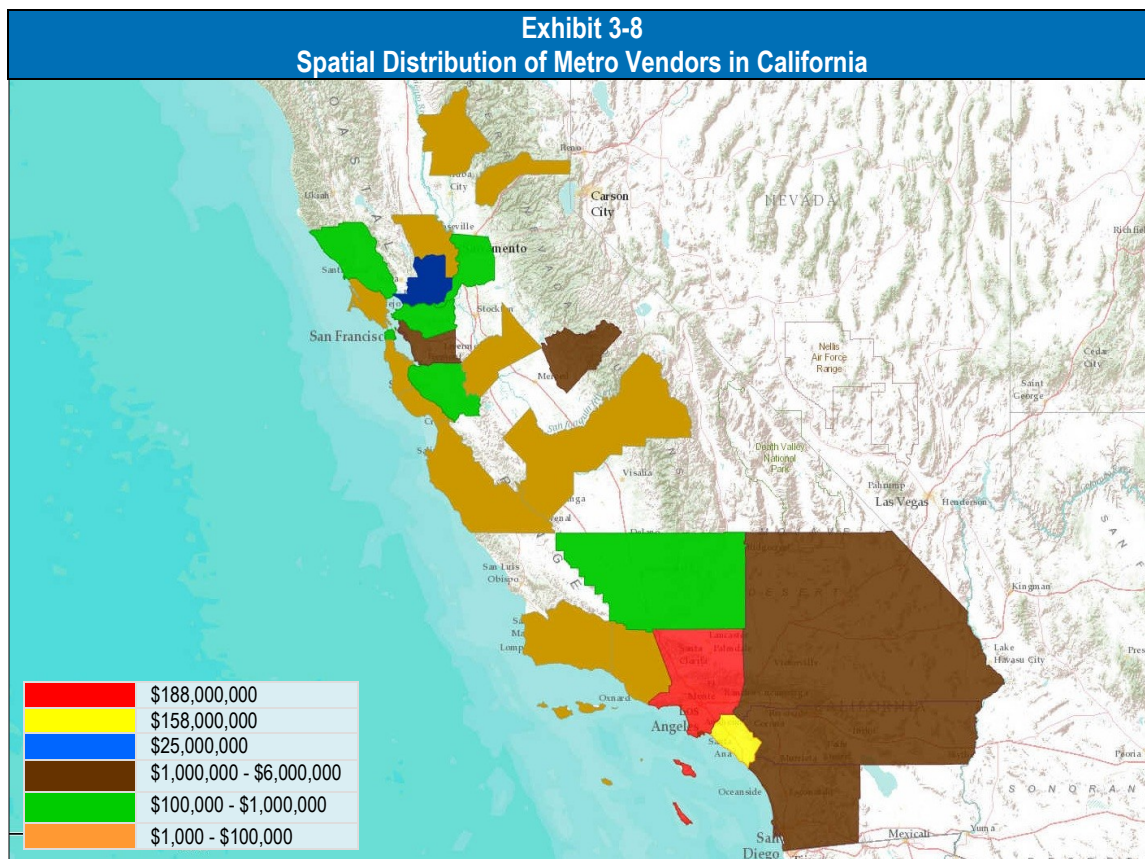
At the federal level, social insurance taxes and personal income taxes account for 90 percent of the fiscal impact.

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.



Metro purchased \$391 million worth of goods and services from over 900 vendors in California during the year of 2010. The value of purchase orders in the five-county southern California region is over 91 percent of the total or \$357 million. The five-county southern California area includes Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. The remaining purchases in California total \$34 million.

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.

Exhibit 3-9 Economic Impact of Metro's Operations and Subsidies in California			
	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Operations	27,150	\$ 1,907.1	\$ 4,259.9
Subsidy	13,090	922.9	2,061.4
Total *	40,240	\$ 2,830.0	\$ 6,321.3

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

Metro's expenditures in Southern California during the fiscal year generated \$6.32 billion in economic output in the state and supported an estimated 40,240 jobs with total labor income of \$2.8 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.

Exhibit 3-10 Economic Impact in California by Industry Sector			
Industry	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Agriculture	140	\$ 6.9	\$ 21.9
Mining	60	4.9	13.3
Utilities	130	22.3	104.5
Construction	2,170	143.9	357.1
Manufacturing	940	70.5	509.7
Wholesale trade	700	55.4	121.7
Retail trade	2,800	102.1	214.5
Transportation and warehousing	16,220	1,464.4	2,567.7
Information	380	36.9	158.6
Finance and insurance	2,080	138.6	416.8
Real estate and rental	1,180	32.1	491.8
Professional, scientific and technical services	3,530	319.1	498.5
Management of companies	150	16.9	30.3
Administrative and waste management	2,100	83.3	167.5
Educational services	580	25.1	41.6
Health care and social assistance	2,740	166.2	284.1
Arts, entertainment and recreation	580	15.9	42.2
Accommodation and food services	1,840	42.4	116.6
Other services	1,630	58.1	114.8
Government and non-NAICS	270	24.9	54.0
Total *	40,240	\$ 2,830.0	\$ 6,321.3

* 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 be nearly \$1.1 billion. Of this amount, \$322 million was earned by state and local governments (including cities and county governments), and \$759 million was earned by federal tax authorities.

Exhibit 3-11			
Fiscal Impact of Metro’s Operations and Subsidies in California			
(\$ millions)			
	Local and State	Federal	Total
Operations	\$ 217.3	\$ 506.8	\$ 724.1
Subsidy	105.1	252.3	357.2
Total *	\$ 322.4	\$ 759.0	\$ 1,081.4

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

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

Exhibit 3-12	
State and Local Taxes Generated in California by Type	
(Combined Operations and Subsidies)	
State and Local Taxes	
Property taxes	\$ 71.1
Sales taxes	63.3
Incomes taxes	117.0
Social insurance	17.0
Fees, fines and other taxes	54.1
Total state and local taxes *	\$ 322.4
Federal Taxes	
Social insurance	\$ 431.4
Personal income taxes	252.4
Corporate profits taxes	51.5
Fees and other federal payments	12.2
Excise taxes	11.5
Total federal taxes *	\$ 759.0
Total Fiscal Impact *	\$ 1,081.4

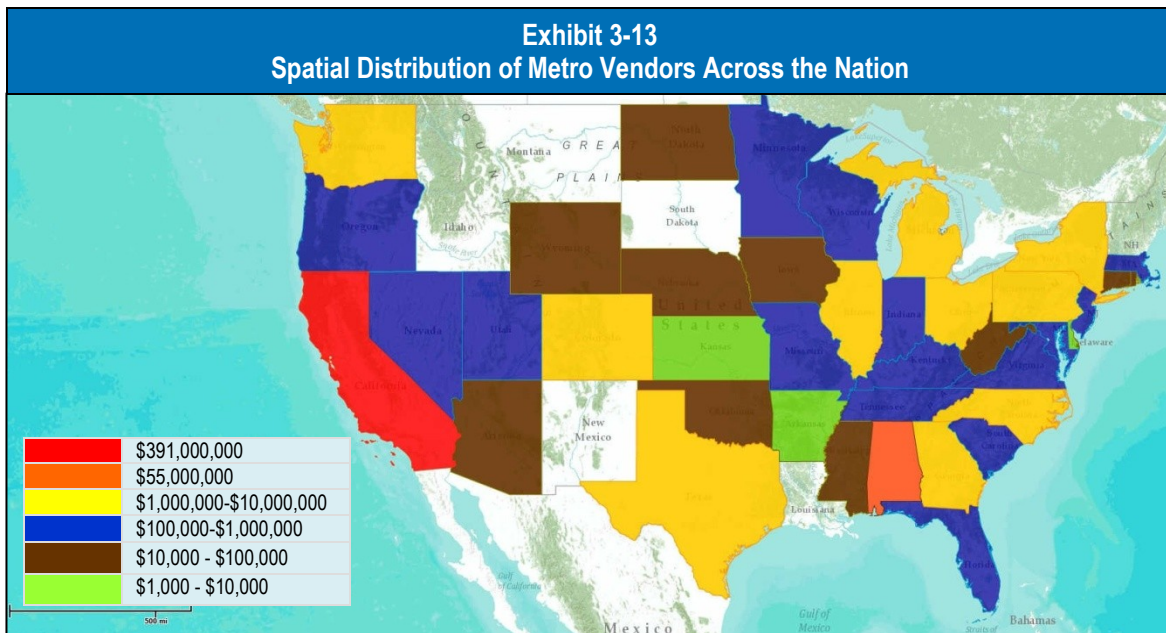
* May not sum due to rounding
 Source: Estimates by LAEDC

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 value of purchases in each state is shown in Exhibit 3-13.



As noted, Metro purchases goods and services from 40 states across the nation. The *values* of purchases by state vary widely. More than half of all vendors were located in the California. It is by far the leading state in providing goods and services to Metro, with a total value of purchase orders reaching \$391 million in 2010. The next state with almost \$55 million in total purchases is Alabama. Other states supplying significant goods to Metro include Washington, Ohio, Pennsylvania, Texas, Illinois and others (color-coded yellow), where the value of purchase orders in each state ranges between \$1 million and \$10 million. The value of purchases in all other states shown on the map is less than \$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 national 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 purchases of buses 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	33,070	\$ 2,105.0	\$ 4,993.9
Subsidy	16,050	1,030.6	2,438.1
Total *	49,120	\$ 3,135.5	\$ 7,432.0

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

Metro’s expenditures nationwide during the fiscal year generated more than \$7.4 billion in economic output in the country and supported an estimated 49,120 jobs with total labor income of \$3.1 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 nearly 9000 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.

Exhibit 3-16 Economic Impact in the United States by Industry Sector			
Industry	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Agriculture	520	\$ 14.5	\$ 59.8
Mining	240	24.9	70.1
Utilities	210	28.5	132.6
Construction	2,610	134.4	363.9
Manufacturing	1,740	127.9	878.3
Wholesale trade	880	68.1	149.8
Retail trade	3,800	116.5	248.5
Transportation and warehousing	16,560	1,466.8	2,583.1
Information	560	44.2	194.0
Finance and insurance	2,670	184.0	546.6
Real estate and rental	1,740	38.0	554.2
Professional, scientific and technical services	4,090	340.8	547.4
Management of companies	280	31.9	56.6
Administrative and waste management	2,720	97.0	195.7
Educational services	740	31.1	52.7
Health care and social assistance	3,990	215.0	378.4
Arts, entertainment and recreation	780	18.5	48.2
Accommodation and food services	2,540	53.7	155.6
Other services	2,080	71.4	145.5
Government and non-NAICS	360	28.4	71.0
Total *	49,120	\$ 3,135.5	\$ 7,432.0

* 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.

Exhibit 3-17			
Fiscal Impact of Metro's Operations and Subsidies in the United States			
(\$ millions)			
	Local and State	Federal	Total
Operations	\$ 234.7	\$ 549.8	\$ 784.4
Subsidy	115.5	276.0	391.5
Total *	\$ 350.2	\$ 825.7	\$ 1,175.9

* 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.

Exhibit 3-18	
State and Local Taxes Generated in the United States by Type	
(Combined Operations and Subsidies)	
State and Local Taxes	
Property taxes	\$ 84.4
Sales taxes	83.7
Incomes taxes	108.3
Social insurance	15.1
Fees, fines and other taxes	58.8
Total state and local taxes *	\$ 350.2
Federal Taxes	
Social insurance	\$ 465.9
Personal income taxes	267.0
Corporate profits taxes	64.2
Fees and other federal payments	14.8
Excise taxes	13.9
Total federal taxes *	\$ 825.1
Total Fiscal Impact *	\$ 1,175.9

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

Appendix

Detailed Tables

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Expenditures by Strategic Business Unit

Exhibit A-1 Expenditures on Wages and Benefits by Strategic Business Unit (\$ millions)			
Strategic Business Unit	Wages	Benefits	Total wages and benefits
Metro Operations	\$ 420.7	\$ 286.0	\$ 706.7
Countywide Planning and Development	8.8	6.0	15.0
Construction Project Management	9.1	6.2	15.3
Exposition Metro Construction Authority	1.9	1.3	3.2
Highway Capital Management	1.7	1.2	2.9
Communications	11.8	8.0	19.8
Economic Development	1.6	1.1	2.8
Administrative Services	30.0	20.4	50.5
Financial Services	9.5	6.5	16.0
Management Audit Services	1.5	1.0	2.4
Board of Directors	2.2	1.5	3.8
Chief Executive Office	13.6	9.3	22.9
Total *	\$ 512.6	\$ 348.5	\$ 861.1

* May not sum due to rounding
Source: Metro

Exhibit A-2 Expenditures on Goods and Services by Strategic Business Unit (\$ millions)			
Strategic Business Unit	Goods	Services	Total goods and services
Metro Operations	\$ 236.6	\$ 115.7	\$ 352.2
Countywide Planning and Development	15.8	38.2	54.1
Construction Project Management	167.3	87.1	254.5
Exposition Metro Construction Authority	65.3	166.7	231.9
Highway Capital Management	17.4	51.0	68.4
Communications	6.1	20.8	27.0
Economic Development	146.9	7.6	154.5
Administrative Services	3.7	17.8	21.6
Financial Services	1.7	244.3	246.0
Management Audit Services	0.0	2.1	2.1
Board of Directors	0.0	10.6	10.6
Chief Executive Office	4.1	73.5	77.6
Total *	\$ 665.0	\$ 835.6	\$ 1,500.7

* May not sum due to rounding
Source: Metro

Exhibit A-3 Expenditures Excluded for Non-Economic Impact (\$ millions)	
Acquisition of buildings and structures	\$ 239.2
Acquisition of land	163.6
Currency losses / gains	0.7
Inventory obsolescence	3.8
Inventory adjustments	(0.1)
Total spending excluded *	\$ 407.2

* May not sum due to rounding

Source: Metro

Expenditures by State

Exhibit A-4 Expenditures for Metro Operations by State (\$ 000)			
Alabama	\$ 54,498	Nevada	159
Arizona	16	New Hampshire	0
Arkansas	9	New Jersey	499
California	390,819	New York	2,412
Colorado	1,558	North Carolina	2,607
Connecticut	98	North Dakota	77
Delaware	4	Ohio	8,092
Florida	360	Oklahoma	15
Georgia	1,627	Oregon	197
Illinois	3,134	Pennsylvania	4,759
Indiana	740	Rhode Island	15
Iowa	14	South Carolina	464
Kansas	6	Tennessee	104
Kentucky	379	Texas	4,028
Maryland	368	Utah	640
Massachusetts	142	Virginia	337
Michigan	1,321	Washington	9,129
Minnesota	734	West Virginia	19
Mississippi	43	Wisconsin	301
Missouri	570	Wyoming	41
Nebraska	55		
TOTAL			\$ 490,390

Source: Metro

Economic Impacts: Southern California

Exhibit A-5 Economic Impact in Southern California by Strategic Business Unit			
Strategic Business Unit	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Metro Operations	14,740	\$ 1,078.9	\$ 2,341.6
Countywide Planning and Development	840	54.8	127.8
Construction Project Management	1,550	95.0	233.6
Exposition Metro Construction Authority	2,590	164.4	393.0
Highway Capital Management	870	56.3	125.3
Communications	700	48.4	106.7
Economic Development	100	8.9	23.4
Administrative Services	1,180	84.9	186.0
Financial Services	1,680	104.1	244.0
Management Audit Services	80	5.3	11.8
Board of Directors	200	14.3	31.4
Chief Executive Office	1,720	117.9	245.4
Total *	26,230	\$ 1,833.2	\$ 4,069.8

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

Exhibit A-6 Economic Impact in Southern California by Subsidy Category			
Expenditure Category	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Transit Operations	7,830	\$ 573.1	\$ 1,243.8
Highway Capital	2,760	173.8	410.3
Transit Capital	2,040	146.1	321.1
Total *	12,630	\$ 893.1	\$ 1,975.2

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

Fiscal Impacts: Southern California

Exhibit A-7 Fiscal Impact in Southern California by Strategic Business Unit			
Strategic Business Unit	State and Local Taxes	Federal Taxes	Total
Metro Operations	\$ 120.5	\$ 314.7	\$ 435.2
Countywide Planning and Development	5.9	13.1	19.0
Construction Project Management	11.3	21.3	32.6
Exposition Metro Construction Authority	17.9	37.0	54.9
Highway Capital Management	6.6	11.6	18.2
Communications	5.9	12.6	18.5
Economic Development	1.2	2.3	3.5
Administrative Services	9.8	24.2	33.0
Financial Services	12.1	24.3	36.5
Management Audit Services	0.6	1.4	2.0
Board of Directors	1.8	3.5	5.4
Chief Executive Office	14.0	26.3	40.3
Total *	\$ 207.7	\$ 492.5	\$ 700.1

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

Exhibit A-8 Fiscal Impact in Southern California by Subsidy Category			
Expenditure Category	State and Local Taxes	Federal Taxes	Total Taxes
Transit Operations	\$ 64.0	\$ 167.2	\$ 231.2
Highway Capital	20.4	38.6	59.0
Transit Capital	16.4	41.2	57.6
Total *	\$ 100.9	\$ 247.0	\$ 347.8

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

Economic Impacts: California

Exhibit A-9 Economic Impact in California by Strategic Business Unit			
Strategic Business Unit	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Metro Operations	15,740	\$ 1,133.8	\$ 2,500.2
Countywide Planning and Development	840	56.1	130.2
Construction Project Management	1,550	97.3	238.1
Exposition Metro Construction Authority	2,590	168.5	400.6
Highway Capital Management	840	58.2	127.2
Communications	700	49.5	108.6
Economic Development	100	9.1	23.8
Administrative Services	1,190	86.4	189.7
Financial Services	1,680	106.4	248.8
Management Audit Services	80	5.4	12.1
Board of Directors	200	14.4	32.0
Chief Executive Office	1,650	122.0	248.8
Total *	27,150	\$ 1,907.1	\$ 4,259.9

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

Exhibit A-10 Economic Impact in California by Subsidy Category			
Expenditure Category	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Transit Operations	8,270	\$ 595.2	\$ 1,312.4
Highway Capital	2,700	176.5	412.7
Transit Capital	2,130	151.3	336.3
Total *	13,090	\$ 922.9	\$ 2,061.4

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

Fiscal Impacts: California

Exhibit A-11 Fiscal Impact in California by Strategic Business Unit			
Strategic Business Unit	State and Local Taxes	Federal Taxes	Total
Metro Operations	\$ 128.1	\$ 326.3	\$ 454.5
Countywide Planning and Development	6.1	13.3	19.3
Construction Project Management	11.6	21.6	33.2
Exposition Metro Construction Authority	18.3	37.5	55.9
Highway Capital Management	6.7	11.9	18.6
Communications	6.1	12.7	18.8
Economic Development	1.2	2.3	3.6
Administrative Services	10.0	24.5	34.5
Financial Services	12.5	24.6	37.1
Management Audit Services	0.6	1.4	2.0
Board of Directors	1.9	3.5	5.4
Chief Executive Office	14.2	27.0	41.2
Total *	\$ 217.3	\$ 506.8	\$ 724.1

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

Exhibit A-12 Fiscal Impact in California by Subsidy Category			
Expenditure Category	State and Local Taxes	Federal Taxes	Total Taxes
Transit Operations	\$ 67.3	\$ 171.3	\$ 238.5
Highway Capital	20.7	38.8	59.4
Transit Capital	17.2	42.1	59.3
Total *	\$ 105.1	\$ 252.2	\$ 357.3

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

Economic Impacts: United States

Exhibit A-13 Economic Impact in the United States by Strategic Business Unit			
Strategic Business Unit	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Metro Operations	18,760	\$ 1,244.6	\$ 2,887.2
Countywide Planning and Development	1,060	63.3	158.5
Construction Project Management	1,990	110.9	292.2
Exposition Metro Construction Authority	3,320	191.7	493.8
Highway Capital Management	1,080	64.3	153.5
Communications	850	54.2	126.8
Economic Development	140	10.2	28.4
Administrative Services	1,420	94.5	218.9
Financial Services	2,060	117.8	291.5
Management Audit Services	100	6.0	14.3
Board of Directors	240	15.9	37.1
Chief Executive Office	2,050	131.5	291.6
Total *	33,070	\$ 2,105.0	\$ 4,993.9

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

Exhibit A-14 Economic Impact in the United States by Subsidy Category			
Expenditure Category	Employment (jobs)	Labor Income (\$ millions)	Output (\$ millions)
Transit Operations	9,970	\$ 661.1	\$ 1,533.7
Highway Capital	3,490	200.9	508.3
Transit Capital	2,600	168.6	396.1
Total *	16,050	\$ 1,030.6	\$ 2,438.1

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

Fiscal Impacts: United States

Exhibit A-15 Fiscal Impact in the United States by Strategic Business Unit			
Strategic Business Unit	State and Local Taxes	Federal Taxes	Total
Metro Operations	\$ 139.8	\$ 349.8	\$ 489.6
Countywide Planning and Development	6.7	14.9	21.5
Construction Project Management	12.5	24.7	37.2
Exposition Metro Construction Authority	20.2	42.7	62.3
Highway Capital Management	6.9	13.3	20.2
Communications	6.4	13.8	20.2
Economic Development	1.3	2.6	3.9
Administrative Services	10.8	26.2	37.0
Financial Services	13.0	27.1	40.1
Management Audit Services	0.6	1.5	2.2
Board of Directors	1.9	3.8	5.8
Chief Executive Office	14.5	29.2	43.8
Total *	\$ 234.7	\$ 549.7	\$ 784.4

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

Exhibit A-16 Fiscal Impact in the United States by Subsidy Category			
Expenditure Category	State and Local Taxes	Federal Taxes	Total Taxes
Transit Operations	\$ 74.2	\$ 185.8	\$ 260.1
Highway Capital	22.3	44.2	66.6
Transit Capital	18.9	46.0	64.9
Total *	\$ 115.5	\$ 276.0	\$ 391.5

* 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 2010-11 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 2011 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.

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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ECONOMIC IMPACT ANALYSIS

ECONOMIC IMPACT OF 45 PERCENT OF ANTICIPATED MEASURE J REVENUE

Los Angeles County Economic Development Corporation
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This report was commissioned by the Los Angeles County Metropolitan Transportation Authority.

The LAEDC Economic and Policy Analysis Group offers objective economic and policy research for public agencies and private firms. The group focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in water, transportation, infrastructure and environmental policy.

Every reasonable effort has been made to ensure that the data contained herein reflect the most accurate and timely information possible and they are believed to be reliable.

The report is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.

Measure J Revenue

In November, 2012, voters in Los Angeles County will consider approval of Measure J, which would extend the one-half cent sales tax that is currently being levied on goods and services in Los Angeles County (set to expire in 2038) for an additional thirty years. Approximately 35 percent of the anticipated Measure J revenue stream will be used for transit corridor construction projects and 20 percent for highway and freeway improvements. The remaining revenue stream, approximately 45 percent of the total (and hereinafter referred to as “45% Measure J Spending”), will be allocated among a variety of uses. The allocations by category are shown in the exhibit below.

Exhibit 1		
Allocation of Anticipated Measure J Revenue Stream By Category		
	\$ millions	% of total
Transit corridor construction	\$ 12,196.2	34.5
Highway and freeway improvements	6,969.3	19.7
45% Spending:		
Bus Operational Improvements	\$ 6,969.3	
Local Return	5,227.0	
Rail Operations	1,742.3	
Metrolink Capital	1,045.4	
Metro Rail Capital	696.9	
Administration *	530.7	
Sub-total of 45% Spending *	16,211.5	45.8
Total Anticipated Measure J Revenues	\$ 35,377.0	100.0

* Administration includes administrative costs for transit corridor construction and highway and freeway improvements, therefore sub-total exceeds 45% of overall revenue stream

Source: Metro
2010 dollars

The spending associated with this revenue stream will generate significant economic impact, not only in the region but across the state and nation. The economic activity associated with the transit corridor construction and the highway and freeway improvements have been estimated elsewhere. The remaining 45 percent allocated to other categories is considered below.

Excluded Spending

Right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets and does not generate economic activity. In this analysis, it is assumed that 5 percent of the local return (or \$222.1 million) will be used for right-of-way acquisition. The methodology is fully described below. All dollar figures are quoted in 2010 dollars.

Southern California Impacts

The exhibit below summarizes the economic impact in the five-county Southern California region of the 45 percent Measure J revenue stream, as allocated.

Exhibit 2				
Southern California Economic Impact of 45 Percent Measure J Spending by Category				
	Net Spending (\$ millions)	Output (\$ millions)	Jobs	Compensation (\$ millions)
Bus Operational Improvements	\$ 6,969.3	\$ 15,410	96,970	\$ 7,100
Local Return	5,004.8	11,096	71,390	4,290
Rail Operations	1,742.3	3,852	24,240	1,775
Metrolink Capital	1,045.4	2,092	13,880	849
Metro Rail Capital	696.9	1,394	9,250	566
Administration	530.7	1,377	8,750	629
Total *	\$ 15,989	\$ 35,220	224,500	\$ 15,210

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

During the 30-year period, the net spending related to the 45 percent of Measure J revenues not allocated to highway and transit projects, after deducting spending on right-of-way acquisition, is \$16.0 billion. This spending will generate economic output of \$35.2 billion in the five-county region of Southern California (in 2010 dollars) and support 224,500 part-time and full-time jobs with total labor income of \$15.2 billion.

Fiscal Impact

The total economic activity in the Southern California region will generate significant state, local and federal tax revenues. Income taxes will be collected on the earnings of workers, both direct and indirect, as well as unemployment insurance and disability insurance taxes. Sales taxes will be generated on the purchases of materials by the construction contractors and of goods and services by all the workers whose earnings are sustained by the transportation projects. The estimated tax revenues by level of government are summarized in Exhibit 3.

It is estimated that direct, indirect and induced workers and businesses will pay \$623 million in California corporate profits taxes and personal income taxes, and \$1.6 billion in federal income taxes. Property taxes will reach \$383 million, and sales taxes generated on all purchases will reach \$341 million.

All together, almost \$5.8 billion in tax revenues will be generated in relation to the 45 percent of Measure J revenue stream. Approximately 70 percent of this will be earned at the federal level and 30 percent at the state and local level.

Exhibit 3	
Southern California Fiscal Impact of 45 Percent Measure J Spending by Type	
State and Local Taxes (\$ millions)	
Income taxes	\$ 623
Sales taxes	341
Property tax	383
Social insurance	87
Fees, fines and other taxes	286
Total state and local taxes	\$ 1,720
Federal Taxes (\$ millions)	
Incomes taxes	\$ 1,627
Social insurance	2,272
Other taxes	138
Total federal taxes	\$ 4,037
Total *	\$ 5,757

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

Tax revenues by category are shown below.

Exhibit 4			
Southern California Fiscal Impact of 45 Percent Measure J Spending by Category			
	State and Local Taxes (\$ millions)	Federal Taxes (\$ millions)	Total Tax Revenues (\$ millions)
Bus Operational Improvements	\$ 793	\$ 2,071	\$ 2,864
Local Return	489	950	1,439
Rail Operations	198	518	716
Metrolink Capital	101	191	292
Metro Rail Capital	67	127	195
Administration	73	179	252
Total *	\$ 1,720	\$ 4,037	\$ 5,757

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

Industry Breakdown

Total output, employment and compensation impacts are disaggregated by industry sector in Exhibit 5. This allows an estimation and industry identification of “follow-on” jobs and business revenues.

Exhibit 5			
Southern California Economic Impact of 45 Percent Measure J Spending by Industry Sector			
Industry	Output (\$ millions)	Jobs	Labor income (\$ millions)
Agriculture	\$ 55	380	\$ 23
Mining	117	440	52
Utilities	557	720	112
Construction	5,356	34,040	2,149
Manufacturing	2,633	4,940	359
Wholesale trade	714	4,160	317
Retail trade	1,207	15,890	570
Transportation and warehousing	12,653	77,480	7,222
Information	791	1,920	171
Finance and insurance	2,027	9,670	598
Real estate	2,611	6,090	180
Professional, scientific and technical services	1,821	13,250	1,090
Management of companies	147	810	77
Administrative and waste management	884	11,800	438
Education services	239	3,220	144
Health care and social assistance	1,585	15,690	912
Arts, entertainment and recreation	221	3,000	86
Accommodations and food services	632	10,080	233
Other services	673	9,440	342
Government and non-NAICS	298	1,450	136
Total *	\$ 35,220	224,500	\$ 15,210

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

Much of the impact will occur in the transportation sector, with approximately 35 percent of the total (direct, indirect and induced) output earned by firms and jobs generated in the industry. However, other industries are also significantly impacted, including: construction, professional, scientific and technical services, health care and social assistance, and retail trade. Each of these industries will see an increase in business revenues and in the number of jobs as the effects of the increase in activity due to this spending ripple through the regional economy.

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

National Impacts

In addition to the economic activity generated in the Southern California region, indirect and induced impacts occur across the nation. The exhibit below summarizes the economic impact in the United States due to the 45 percent Measure J revenue stream, as allocated.

Exhibit 6 National Economic Impact of 45 Percent Measure J Spending by Category				
	Net Spending (\$ millions)	Output (\$ millions)	Jobs	Compensation (\$ millions)
Bus Operational Improvements	\$ 6,969.3	\$ 19,000	123,480	\$ 8,190
Local Return	5,004.8	13,587	85,340	5,175
Rail Operations	1,742.3	4,750	30,870	2,048
Metrolink Capital	1,045.4	2,617	17,840	993
Metro Rail Capital	696.9	1,744	11,890	662
Administration	530.7	1,621	10,530	700
Total *	\$ 15,989	\$ 43,320	279,900	\$ 17,770

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

During the 30-year period, the net spending related to the 45 percent of Measure J revenues not allocated to highway and transit projects, after deducting spending on right-of-way acquisition, is \$16.0 billion. This spending will generate economic output of \$43.3 billion in the nation (in 2010 dollars) and support 279,900 part-time and full-time jobs across the nation with total labor income of \$17.8 billion. Thus, more than 55,000 jobs will be generated in the US outside of Southern California.

Fiscal Impact

By adding economic activity occurring across the nation, the fiscal impact of this activity is larger than what was estimated at the regional level. The estimated tax revenues by level of government are summarized in Exhibit 7.

It is estimated that direct, indirect and induced workers and businesses will pay \$606 million in state corporate profits taxes and personal income taxes, and \$1.8 billion in federal income taxes. Property taxes will reach \$491 million, and sales taxes generated on all purchases will reach \$476 million.

All together, more than \$6.5 billion in tax revenues will be generated nationally in relation to the 45 percent of Measure J revenue stream. Approximately 69 percent of this will be earned at the federal level and 31 percent at the state and local level.

Exhibit 7	
National Fiscal Impact of 45 Percent Measure J Spending by Type	
State and Local Taxes (\$ millions)	
Income taxes	\$ 606
Sales taxes	476
Property tax	491
Social insurance	131
Fees, fines and other taxes	334
Total state and local taxes	\$ 2,038
Federal Taxes (\$ millions)	
Incomes taxes	\$ 1,800
Social insurance	2,526
Other taxes	171
Total federal taxes	\$ 4,497
Total *	\$ 6,535

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

Tax revenues by spending category are shown below.

Exhibit 8			
National Fiscal Impact of 45 Percent Measure J Spending by Category			
	State and Local Taxes (\$ millions)	Federal Taxes (\$ millions)	Total Tax Revenues (\$ millions)
Bus Operational Improvements	\$ 920	\$ 2,302	\$ 3,222
Local Return	622	1,057	1,679
Rail Operations	230	576	805
Metrolink Capital	112	221	333
Metro Rail Capital	75	147	222
Administration	80	194	274
Total *	\$ 2,038	\$ 4,497	\$ 6,535

* May not sum due to rounding

Sources: Metro; Estimates by LAEDC

Industry Breakdown

Total output, employment and compensation impacts at the national level are disaggregated by industry sector in the exhibit below.

Exhibit 9 National Economic Impact of 45 Percent Measure J Spending by Industry Sector			
Industry	Output (\$ millions)	Jobs	Earnings (\$ millions)
Agriculture	\$ 326	2,840	\$ 82
Mining	490	1,540	157
Utilities	779	1,190	159
Construction	5,410	39,560	2,467
Manufacturing	5,967	13,030	920
Wholesale trade	1,040	5,770	450
Retail trade	1,357	20,480	652
Transportation and warehousing	13,089	84,140	7,400
Information	1,058	3,000	256
Finance and insurance	2,649	11,910	829
Real estate	3,016	8,790	196
Professional, scientific and technical services	2,055	14,970	1,185
Management of companies	349	1,690	191
Administrative and waste management	1,052	14,390	515
Education services	284	4,040	166
Health care and social assistance	2,060	21,220	1,165
Arts, entertainment and recreation	272	4,230	108
Accommodations and food services	863	13,720	304
Other services	812	11,450	406
Government and non-NAICS	394	1,990	158
Total *	\$ 43,320	279,900	\$ 17,770

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

Much of the impact will occur in the transportation sector, with 30 percent of the total (direct, indirect and induced) output earned by firms and jobs generated in the industry. However, other industries are also significantly impacted, including: construction, professional, scientific and technical services, health care and social assistance, and retail trade.

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

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 and its contractors. 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 supplied by Metro for the total anticipated revenue stream and its allocation among categories. Each category of spending was modeled using expenditure patterns from one or more business units of Metro's operations, as described below. The direct, indirect and induced effects were estimated using models developed with the IMPLAN system (V3 software and 2010 data) from MIG, Inc.

In all cases, we have proceeded as if the spending will take place within a single year, as is customary in this type of impact analysis. For long-term projects such as multi-year transportation improvement projects, the reader is cautioned to note that the modeling system does not account for changes in prices and wages over time. All dollar figures are quoted in 2010 dollars.

The estimated economic impacts are based on spending within the five-county Southern California region, which includes the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura. These counties are chosen as representative of the region most affected by the Metro's projects. Although most of the employment and economic activity may be in Los Angeles County, we expect that the workforce, the materials purchased, and the businesses that will be impacted by Measure J spending are located throughout the five-county Southern California region.

National economic impact estimates are produced using multi-regional analysis, which captures the impacts of regional spending in other areas of the nation.

Data limitations prevent us from estimating how much of the overall spending will take place outside of the region; for example, construction materials might be *purchased* locally but be manufactured elsewhere. In some instances, spending related to a project may occur in neighboring counties such as Santa Barbara or Imperial and thus generate *additional* economic impact that spills over from those neighboring counties. This spillover is not captured by our five-county analysis.

Any spending in the budget category denoted as right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets.

Job creation estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked.

Expenditure Patterns

Metro provided the following guidance on the expenditure patterns for the 45 percent of Measure J revenues not spent directly on transit corridor and highway construction projects:

Bus Operational Improvements: 20% of Measure J revenues are set aside for transit operating improvements. The economic impact of this spending was estimated under the following assumptions:

- 70 percent of the operational improvement funds were allocated following the expenditure patterns of Metro's Operations business unit
- 30 percent of the operational improvement funds were allocated following the expenditure patterns of Metro's transit subsidy funds

The expenditure patterns referenced here are detailed in *Annual Operations of Los Angeles County Metropolitan Transportation Authority FY2012-11: Economic Impact Analysis* produced by the LAEDC (the "FY10/11 Operations Analysis").

Local Return: 15% of Measure J revenues are set aside for the Local Return program, which provides both operational subsidies and capital project funding to local municipalities. The FY2012 Local Return Expenditure Report was used to allocate the estimated local return spending into two categories: operations and capital spending. The economic impact of the operations spending was estimated using the spending patterns of Metro's Operations business unit; the economic impact of the capital spending was estimated as roadwork spending.

Rail Operations: 5% of total Measure J revenues are set aside to support rail operations. The economic impact of this spending was modeled using the spending patterns of Metro's Operations business unit, as detailed in the FY10/11 Operations Analysis.

Metrolink Capital: 3% of total Measure J revenues are set aside to support capital projects for the Metrolink system. The economic impact of this spending was modeled using the spending patterns of Metro's Construction Project Management unit, as detailed in the FY10/11 Operations Analysis.

General Capital for Metro Rail: 2% of total Measure J revenues are set aside to support capital projects for Metro's rail system. The economic impact of this spending was modeled using the spending patterns of Metro's Construction Project Management unit, as detailed in the FY10/11 Operations Analysis.

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