

Trade Impact Study Report

PREPARED FOR

Port of Los Angeles
Port of Long Beach
Alameda Corridor Transportation Authority



PREPARED BY

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Trade Impact Study

Table of Contents

Executive Summary	1
Introduction	1
The Big Picture	2
National Impact	2
Exports	3
Imports	3
National Significance	4
Introduction	9
The Big Picture	9
Overview of National Impacts	10
Share of U.S. Trade	10
Share of U.S. Customs Duties	11
Container Traffic Trends	12
Trade Value by State	13
Overview of Trade Impacts	14
Description of Trade Impacts	14
Summary of Impacts in 2005	14
Comparison of FY2008 Trade Impacts with Trade Impacts in 1994, 2000 and 2005	15
Detailed Results at the State Level	17
Exports	17
Methodology	17
Output	17
Income	20
Jobs	22
Tax Revenues	24
Imports	25
Methodology	25
Wholesale & Retail Direct Output	25
Total Output	27

Income	28
Jobs	29
Tax Revenues.....	30
Congressional District Trade Value	31
Methodology.....	31
Results.....	32
State Assembly and State Senate District Trade Value.....	36
State Assembly	36
State Senate.....	39
Glossary	58

List of Tables

Table 1 – Growth in the National Impact of Trade, 1994-FY2008 For Goods Using Southern California’s Trade Infrastructure Network	3
Table 2 - Summary of Impacts by Region in FY2008 (\$ millions) Ranked by Trade Value.....	8
Table 3 – Trade Value via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)	13
Table 4 – Summary of Trade Impacts for Containerized Trade via the Ports of Los Angeles and Long Beach in FY2008 (\$ billions)	15
Table 5 – Comparison of Impacts from International Containerized Trade via the Ports of Los Angeles and Long Beach in 1994, 2000, 2005 and FY2008	16
Table 6 – Containerized California Exports through the Ports of Los Angeles and Long Beach - Output Impacts by Industry Sector in FY2008 (\$ millions)	18
Table 7 – Output Estimates for Containerized Exports through the Ports of Los Angeles and Long Beach - By State in FY2008 (\$ millions)	19
Table 8 – Income Impacts for Containerized California Exports through the Ports of Los Angeles and Long Beach by Industry Sector in FY2008 (\$ millions).....	20
Table 9 – Income Estimates for Containerized Exports via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)	21
Table 10 - Employment Impacts for Containerized California Exports through the Ports of Los Angeles and Long Beach by Industry Sector in FY2008	22
Table 11 – Employment Estimates for Containerized Exports via the Ports of Los Angeles and Long Beach by State in FY2008 (FTE)	23
Table 12 – Estimated State & Local Taxes for Containerized Exports through the Ports of Los Angeles and Long Beach in FY2008.....	24

Table 13 – Direct Output from Retail and Wholesale Activity Associated with Imports Via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions).....	26
Table 14 – Total Output from Retail and Wholesale Activity Associated with Imports Via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions).....	27
Table 15 – Total Income from Retail and Wholesale Activity Associated with Imports via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions).....	28
Table 16 – Total Employment from Retail and Wholesale Activity Associated with Imports via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions).....	29
Table 17 – Total Tax Revenue from Retail and Wholesale Activity Associated with Imports via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions).....	30
Table 18 – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach	42
Table 19 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	43
Table 20 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	44
Table 21 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	45
Table 22 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	46
Table 23 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	47
Table 24 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	48
Table 25 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	49
Table 26 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	50
Table 27 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	51
Table 28 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	52
Table 29 (continued) – Summary of Trade Impacts, FY2008 Goods Shipped Through the Ports of Los Angeles and Long Beach.....	53
Table 30 – Summary of Trade Impacts, FY2008, by State Assembly District Goods Shipped Through the Ports of Los Angeles and Long Beach.....	54

Table 31 – Summary of Trade Impacts, FY2008, by State Senate District Goods Shipped Through the Ports of Los Angeles and Long Beach.....	57
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List of Figures

Figure 1 – Southern California’s Trade Network	1
Figure 2 – Total Value of Containerized Trade Moving through the Ports of Los Angeles and Long Beach, FY2008	5
Figure 3 – Jobs Related to Trade Flowing Through the Ports of Los Angeles and Long Beach, FY2008	6
Figure 4 – Taxes Related to Trade Flowing Through the Ports of Los Angeles and Long Beach, FY2008	7
Figure 5 – Value of Waterborne Trade via the LA Customs District.....	10
Figure 6 – Estimated Duties Collected on Waterborne Trade via the LA Customs District.....	11
Figure 7 – Container Traffic Trends for the Ports of Los Angeles and Long Beach Full International Containers.....	12
Figure 8 – Location of Shippers Using the Ports of Los Angeles and Long Beach in FY2008...	32
Figure 9 – Value of All Trade Moving Through the Los Angeles-Long Beach Ports, by Congressional District (FY2008).....	33
Figure 10 – Value of Imports Moving Through the Los Angeles-Long Beach Ports, by Congressional District (FY2008).....	34
Figure 11 – Value of Exports Moving Through the Los Angeles-Long Beach Ports, by Congressional District (FY2008).....	35
Figure 12 – Value of Exports Moving Through the Los Angeles-Long Beach Ports, by State Assembly District (FY2008).....	36
Figure 13 – Value of Imports Moving Through the Los Angeles-Long Beach Ports, by State Assembly District (FY2008).....	37
Figure 14 – Value of All Trade Moving Through the Los Angeles-Long Beach Ports, by State Assembly District (FY2008).....	38
Figure 15 – Value of Exports Moving Through the Los Angeles-Long Beach Ports, by State Senate District (FY2008)	39
Figure 16 – Value of Imports Moving Through the Los Angeles-Long Beach Ports, by State Senate District (FY2008)	40
Figure 17 – Value of All Trade Moving Through the Los Angeles-Long Beach Ports, by State Senate District (FY2008)	41

Trade Impact Study

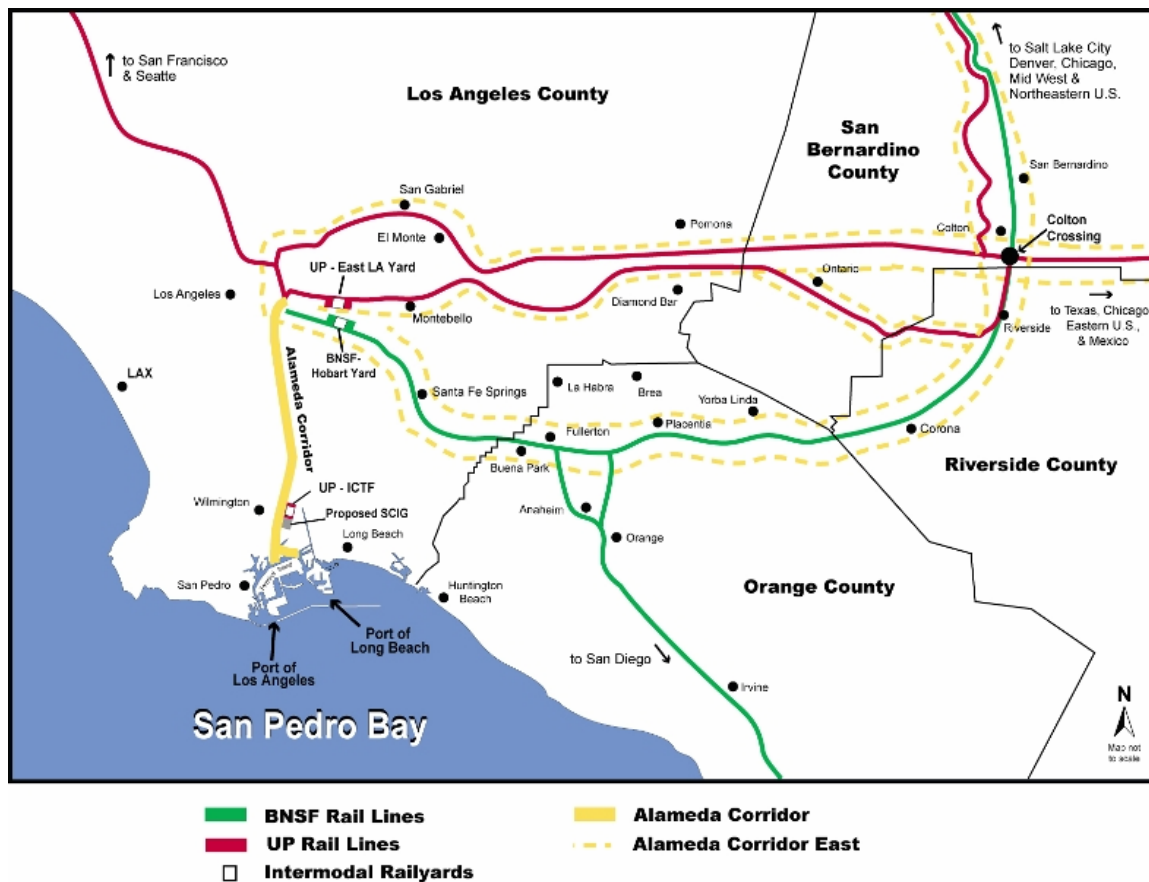
Executive Summary

Introduction

BST Associates was retained by the Alameda Corridor Transportation Authority, the Port of Long Beach, and the Port of Los Angeles to estimate the economic impact of containerized trade that moves through the two ports. This study updates three similar analyses performed previously by BST Associates.

The first of these studies was undertaken in 1995 to highlight the national importance of the Alameda Corridor project and resulted in the Corridor being declared a Project of National Significance. The second analysis, undertaken in 2001, was an update of the first, and was part of the Orange North-American Trade Rail Access Corridor project (OnTrac). In the 2007 and 2009 updates, the purpose was again to highlight the national importance of the Southern California rail network to secure federal funding for much needed grade separations. This report uses data for the federal fiscal year 2008 (October through September), which is the latest data available.

Figure 1 – Southern California's Trade Network



Since the last update of this analysis the value of containerized cargo moving through the Ports of Los Angeles and Long Beach has continued to climb, despite a modest decline in container volumes. The two ports are truly national ports, handling exports of products from throughout the country while also processing imports bound for every state. The cargo moving through these two ports generates jobs, income, and taxes in every state in the United States; assuring that the road and rail system is robust enough to freely move these goods should be a regional, state, and national priority.

The Big Picture

Southern California has become a leading global trade and transshipment center because of its world-class infrastructure and a massive local market, which results in more favorable costs for delivering cargo through these ports to the rest of the nation as well. The region has evolved into a distribution center for U.S. trade with Pacific Rim nations partly because of its geographic location, but also because such a large portion of the trade is consumed locally. The population of Southern California is larger than most states and is growing fast. The rapidly increasing population will demand ever more imported goods and the region's manufacturing sector – one of the largest in the nation – will continue to require components, parts and other inputs. With structural trends in the U.S. and world economies driving international trade flows from Asia to the United States, container traffic at the Ports of Los Angeles and Long Beach is set to rise dramatically over the next 20 years.

National Impact

The Ports of Los Angeles and Long Beach are already first and second in the nation, respectively in container volumes, and together they handle more than one third of all full international container traffic in the United States. Full international container traffic at the ports was 10.5 million Twenty-Foot Equivalent Units (TEUs) in FY2008, including nearly 3.2 million TEU of export traffic and 7.3 million of import traffic. The ports accounted for 27.2% of all U.S. export container traffic and 42.3% of import container traffic in FY2008.

The astounding amount of containerized traffic moving through Southern California impacts the economy throughout the United States, and this impact has grown tremendously since this analysis was first performed. As shown in Table 1, the value of containerized trade moving through the Ports of Los Angeles and Long Beach jumped from \$74 billion in 1994 to \$287 billion in FY2008, or total growth of 287%.

The impacts on both jobs and taxes have also been impressive. Job growth related to this trade was estimated at 216%, or from 1.1 million jobs in 1994 to 3.4 million jobs in FY2008. The state and local taxes (excluding income taxes) that this trade generated grew from an estimated \$6 billion in 1994 to nearly \$30 billion in FY2008, although it must be noted that modifications to the methodology used for estimating jobs and taxes may account from some of this growth. A more detailed explanation of methodology is presented in the body of the report.

**Table 1 – Growth in the National Impact of Trade, 1994-FY2008
For Goods Using Southern California’s Trade Infrastructure Network**

Year	Total Trade (\$Billions)	State and Local Taxes (billions)	Jobs (Full Time Equivalents)
1994	\$74.2	\$6.0	1,070,000
2000	\$196.4	\$16.4	2,022,000
2005	\$256.0	\$28.1	3,305,700
FY2008	\$287.1	\$29.9	3,378,300
% Change			
1994-2000	1.65	1.75	0.89
2000-2005	0.30	0.71	0.63
2005-FY2008	0.12	0.06	0.02
1994-FY2008	2.87	4.00	2.16

Source: BST Associates

Exports

The economic impact of exports shipped through the Ports of Los Angeles and Long Beach was determined in terms of output, employment, income, and taxes. “Output” refers to the value of the production (or sales) created within the economy by exports, “Employment” refers to the number of jobs created by exports, and “Income” refers to the earnings of employees whose jobs are sustained by exports (includes direct, indirect, and induced job impacts). “Taxes” are the state and local sales taxes, public utility taxes, property taxes, motor vehicle fees and severance taxes, among others.

Nationwide, the \$50.0 billion in exports through the Ports of Los Angeles and Long Beach in FY2008 generated a total of \$112.0 billion of **output**. Exports have a derived output multiplier of 2.24, which means that for every \$1.00 of exports, additional output (indirect and induced) of \$1.24 was generated in the United States. The \$50.0 billion in export trade also resulted in an estimated \$25.6 billion in total **income**, with a derived income multiplier of 0.51. This means that every \$1.00 of export trade generated \$0.51 of income. Exports generated an estimated 624,700 total **jobs**, based on an employment multiplier of 12.50 (including direct, indirect, and induced effects). That is, for every \$1 million in export sales, an estimated 12.50 jobs were created in the United States. Finally, waterborne exports through the Ports of Los Angeles and Long Beach generated an estimated \$2.5 billion in state and local **taxes**, for an effective tax rate of 5.0%.

Imports

As with exports, imports also create output, income, employment and tax impacts. However, care must be taken to ensure that only the domestic component of imports is counted, since imported products are manufactured in economies outside the U.S. This means import impacts were calculated based **only** on the share of imports associated with the wholesale and retail industries in America. In order to calculate the impacts of imports, the import value was

first converted into wholesale and retail values, and then the impact calculations performed on the new values.

For FY2008, the total **output** associated with imports moving through the Ports of Los Angeles and Long Beach, for all states combined, was estimated to be \$301.8 billion. The total **income** impact was estimated to be \$90.8 billion, and the total employment impact was estimated to be 2.75 million (full-time equivalent) **jobs**. The state and local **taxes** associated with imports were also calculated, and were estimated to total approximately \$27.4 billion.

National Significance

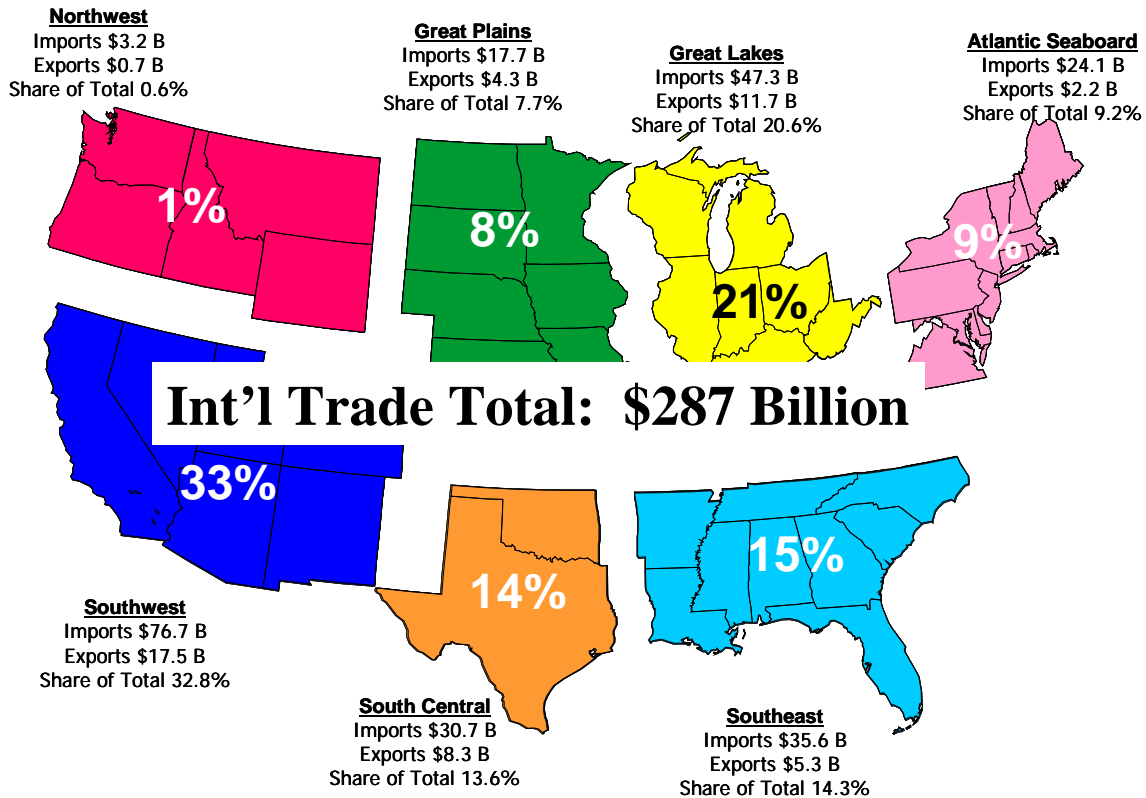
Value of Trade

The economic impact (jobs, income, output and state and local taxes) of the containerized trade moving through Southern California were calculated using the Regional Input-Output Modeling System (RIMS II) input-output model. The economic impact of exports was determined by combining the value of port trade associated with each state with input/output multipliers from the Bureau of Economic Analysis RIMS II model. The economic impact of imports was calculated similarly, with the proviso that only the domestic component was included (i.e., the share of imports associated with the wholesale and retail industries). The trade figures for the wholesale and retail industries were estimated by multiplying the import trade value by the wholesale and retail margins for each industry. Economic impact multipliers were then applied to these wholesale and retail values to estimate the economic impacts. Impacts were calculated for output, employment and income.

Figure 2 summarizes the estimated regional impacts of containerized imports and exports that moved through the Ports of Los Angeles and Long Beach in FY2008.

- The Southwest region imported \$76.7 billion and exported \$17.5 billion worth of containerized goods through the Ports of Los Angeles and Long Beach in FY2008.
- The Great Lakes region imported \$47.3 billion and exported \$11.7 billion.
- The Atlantic Seaboard region imported \$24.1 billion and exported \$2.2 billion.
- The Southeast region imported \$35.6 billion and exported \$5.3 billion.
- The South Central region imported \$30.7 billion and exported \$8.3 billion.
- The Great Plains region imported approximately \$17.7 billion worth of goods and exported \$4.3 billion.
- The Northwest region imported approximately \$3.2 billion worth of goods through these ports in FY2008 and exported \$0.7 billion worth of goods.

**Figure 2 – Total Value of Containerized Trade
Moving through the Ports of Los Angeles and Long Beach, FY2008**



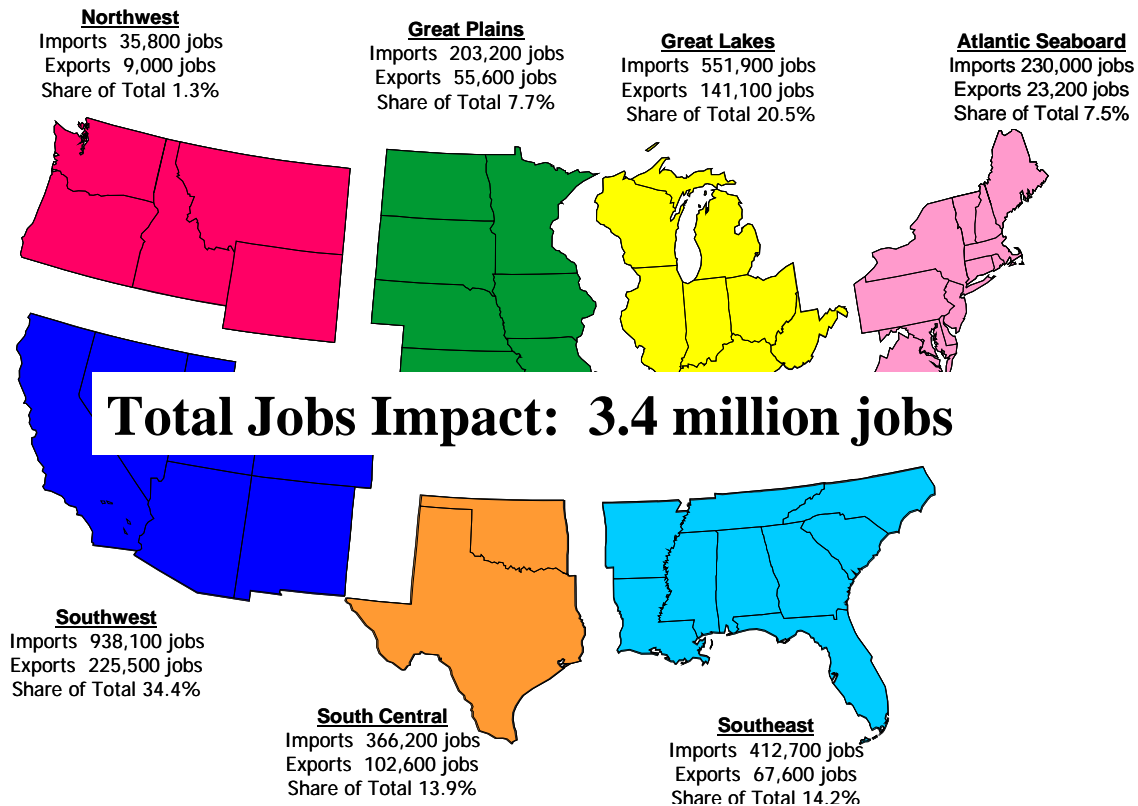
Source: BST Associates

Note: Alaska and Hawaii not shown

Employment

Figure 3 shows the number of jobs that are generated in each region of the United States by the containerized trade moving through the Ports of Los Angeles and Long Beach. In total, this containerized trade generated an estimated 3.4 million jobs nationwide, representing approximately 2.3% of all jobs.

Figure 3 – Jobs Related to Trade Flowing Through the Ports of Los Angeles and Long Beach, FY2008



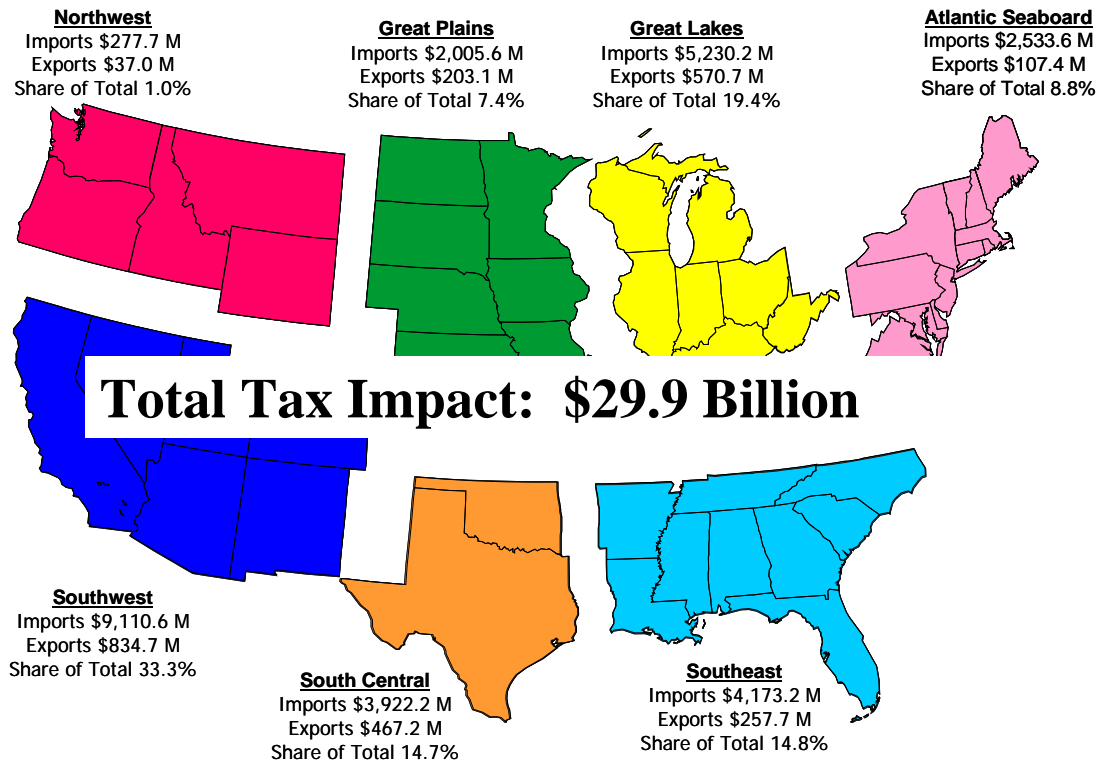
Source: BST Associates

Note: Alaska and Hawaii not shown

State and Local Taxes

The \$287 billion in containerized goods that are imported and exported through the Ports of Los Angeles and Long Beach generate nearly \$30 billion in state and local taxes throughout the United States. The tax impact of imports is especially important, accounting for more the \$27 billion of the \$30 billion, or 92% of the total. The effective tax rate on exports averages 5.0% nationwide while the effective tax rate on imports averages 11.6%.

Figure 4 – Taxes Related to Trade Flowing Through the Ports of Los Angeles and Long Beach, FY2008



Source: BST Associates

Note: Alaska and Hawaii not shown

Regional Summary

The containerized trade that moves through the Ports of Los Angeles and Long Beach impacts every region of the United States. This impact is greatest in the Southwest region, which includes California. However, the impact of these ports is significant in every other region, and Table 2 illustrates the national importance of the trade. Some areas receive more trade than others, due largely to the rail network serving Southern California.

**Table 2 - Summary of Impacts by Region in FY2008 (\$ millions)
Ranked by Trade Value**

Rank	Region	States	Trade Value (\$ millions)	Jobs	Income (\$ millions)	Taxes (\$ millions)
1	Southwest	AZ, CA, CO, NV, NM, UT	\$94,158	1,163,674	43,470	9,945
2	Great Lakes	IL, IN, KY, MI, OH, WV, WI	\$59,009	692,991	22,769	5,801
3	Southeast	AL, AR, FL, GA, LA, MS, NC, SC, TN	\$40,940	480,368	15,158	4,431
4	South Central	OK, TX	\$39,058	468,852	16,805	4,389
5	Atlantic Seaboard	CT, DE, DC, ME, MD, MA, NH, NJ, NY, PA, RI, VT, VA	\$26,283	253,127	8,737	2,641
6	Great Plains	IA, KS, MN, MO, NE, ND, SD	\$21,992	258,785	7,754	2,209
7	Northwest	ID, MT, OR, WA, WY	\$3,961	44,799	1,338	315
8	Alaska Hawaii	AK, HI	\$1,651	15,739	456	152
Grand Total			\$287,054	3,378,336	\$116,487	\$29,883

Source: BST Associates

Introduction

The Southern California trade gateway is a vital component of the nation's economy. More than \$287 billion in containerized trade flowed through this gateway in FY2008. This floodtide of trade moves between our overseas trade partners, particularly China and other Pacific Rim countries, and every state in the lower 48, via the twin ports of Los Angeles and Long Beach. It is critical to the economy of the United States that these ports and the road and rail networks serving them continue to function efficiently. The ports have been successful in adding capacity to meet the demand for marine terminals. However, solving problems with inland transportation system is more complicated, involving more players and directly affecting the everyday lives of Southern California residents.

One project that has been successful in reducing the negative local impacts from the increasing trade is the Alameda Corridor, a twenty-mile, completely grade separated corridor that links the Ports of Los Angeles and Long Beach to the intercontinental rail network that begins east of downtown Los Angeles. The Alameda Corridor, however, is only the first link in the rail system. Beyond downtown Los Angeles the rail system branches into three main routes into and out of the area, and hundreds of roads are crossed at-grade by the rail lines in each of these corridors creating congestion, delay and air pollution at these crossings while trains pass.

BST Associates was retained by the Alameda Corridor Transportation Authority, the Port of Long Beach, and the Port of Los Angeles to estimate the economic impact throughout the United States, of containerized trade that moves through the two ports. The results are intended to demonstrate to state and national leaders the importance of funding transportation system improvements in Southern California. This study represents an update of two similar analyses performed previously by BST Associates. The first of these studies was undertaken in 1995 as part of the original Alameda Corridor project. The second analysis, undertaken in 2001, was an update of the first, and was part of the OnTrac project. The third update was undertaken in 2007 (with data from 2005). This study was prepared with data from FY2008 (October 2007 through September 2008), which was the most recent data available

Since the 2007 update of this analysis, the value of containerized cargo moving through the Ports of Los Angeles and Long Beach increased modestly. The two ports are truly national ports, handling exports of products from throughout the country while also processing imports bound for every state. The cargo moving through these two ports generates jobs, income, and taxes in every state in the United States. Assuring that the road and rail system is robust enough to freely move goods to and from the ports must be a regional, state, and national priority.

The Big Picture

Southern California has become a leading global trade and transshipment center because of its combination of a massive internal market, large manufacturing sector, and heavy investment in world-class infrastructure. The region has evolved into a distribution center for U.S. trade with Pacific Rim nations partly because of its geographic location, but also because one-third of the import trade remains here in Southern California while two-thirds are destined for the rest of the nation, the population of Southern California is larger than most states and is growing fast. The rapidly increasing population will demand ever more imported goods and the region's manufacturing sector – one of the largest in the nation – will continue to require components,

parts and other inputs. With structural trends in the U.S. and world economies driving international trade flows from Asia to the United States, container traffic at the Ports of Los Angeles and Long Beach is set to rise dramatically over the next 20 years.

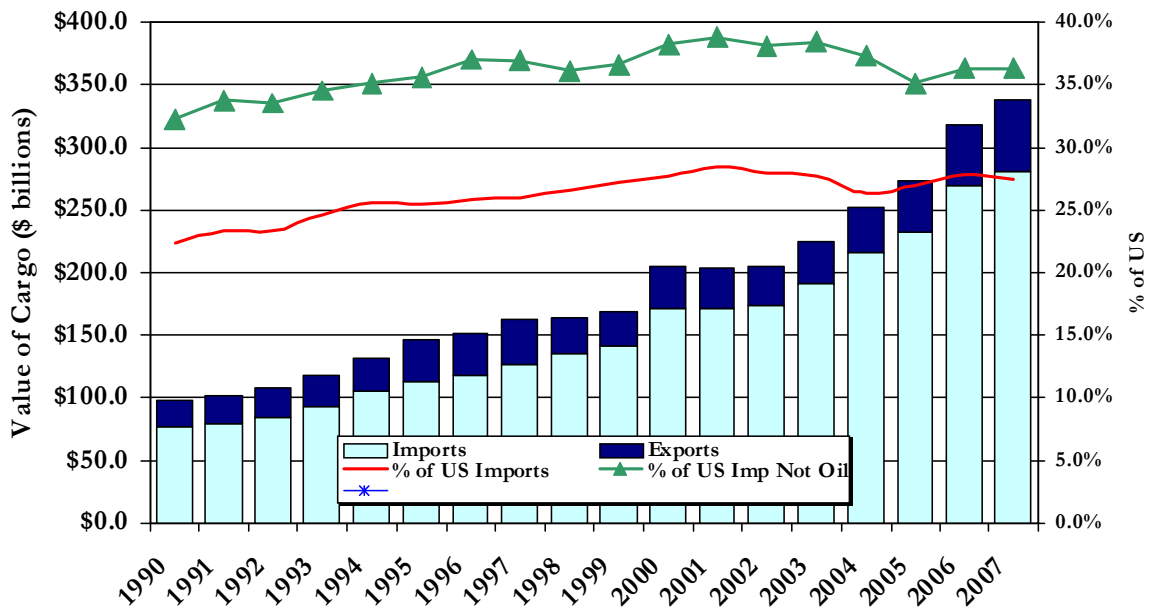
Overview of National Impacts

The following section presents trade data illustrating the role that the Ports of Los Angeles and Long Beach play in U.S. international trade, and demonstrates the importance of the transportation system in the region.

Share of U.S. Trade

Waterborne trade via the Los Angeles Customs District¹ grew from \$97 billion in 1990 to nearly \$338 billion in 2007² (not adjusted for inflation), which translates to an average annual growth rate of 7.6%. Between 1990 and 2000 the value of waterborne cargo moving through the Los Angeles district grew by an average of 7.8% per year. Between 2000 and 2007 the annual increase in value averaged 7.4%.

Figure 5 – Value of Waterborne Trade via the LA Customs District



Source: BST Associates, U.S. Department of Commerce All Modes data

The share of U.S. waterborne trade value that moves through the Los Angeles Customs District peaked in 2001 at 28.4%. In the four years following this peak the share of value moving through the Los Angeles district declined to 23.3%, even though the value of trade was growing by nearly 10% per year. The primary reason for this decline was the rapid increase in

¹ The LA Customs District also includes Port Hueneme, but trade via this Port represents less than 3% of the value of waterborne traffic through the LA Customs District. The source of this data is U.S. Department of Commerce. All values are presented in current dollars (i.e. not adjusted for inflation).

² Latest data available.

the price of crude oil, most of which is imported into the Gulf Coast. In addition, however, the growth in all-water routing of cargo to the East and Gulf Coast, as well as competition from other West Coast regions impacted the Southern California market share.

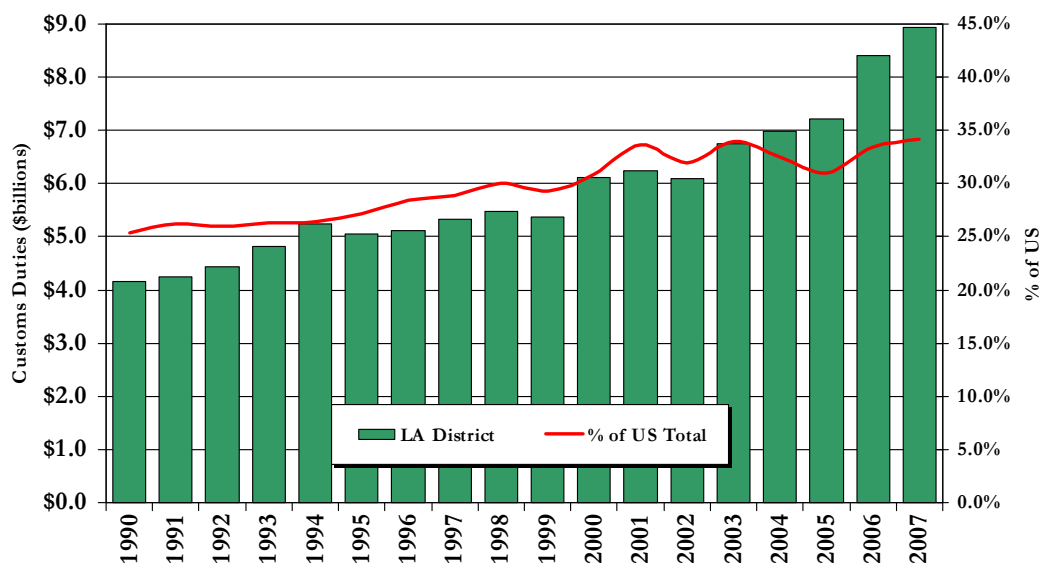
As shown in Figure 5, most of the growth in value has occurred in imports: In 1990 imports accounted for 79% of the value of waterborne cargo moving through the Los Angeles Customs District, but by 2007 this share increased to 83%. Exports represented the remaining 17% of international trade value in 2007.

The value of export trade has grown steadily, nearly doubling between 1990 and 2007. Between 1990 and 2000 the average annual growth in the value of exports was 4.9%. This dropped to an average of just 1.5% per year between 2000 and 2005, due to a decline in value between 2000 and 2002. However, since 2002 the value of exports has grown at an average of 13.3% per year.

Share of U.S. Customs Duties

In 2007³, the waterborne cargo imported into the Los Angeles Customs District generated an estimated collected \$8.9 billion in customs duties, up from \$4.2 billion in 1990. Waterborne imports through the L.A. Customs District accounted for approximately 34% of all customs duties collected on trade moving via all modes in the entire U.S.

Figure 6 – Estimated Duties Collected on Waterborne Trade via the LA Customs District



Source: BST Associates, U.S. Department of Commerce All Modes data

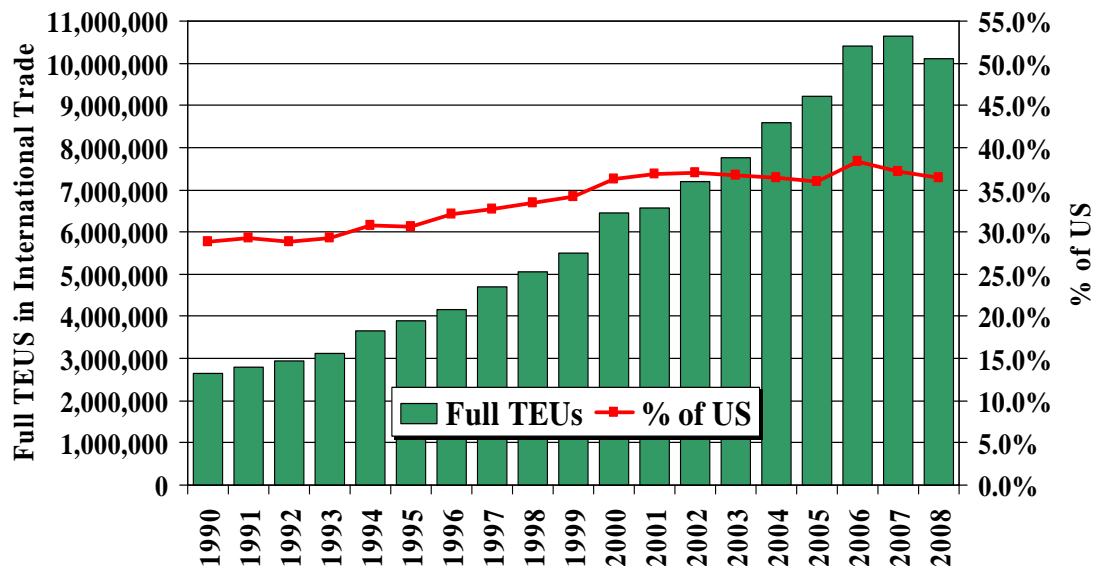
³ Latest data available.

Container Traffic Trends

Most of the growth in traffic through the Ports of Los Angeles and Long Beach has been fueled by containerized cargo. As shown in Figure 7, the number of full international containers moving through the Ports of Los Angeles and Long Beach grew from 2.6 million twenty-foot equivalent units (TEU) in 1990 to a peak of 10.6 million TEU in 2007 and then fell slightly to 10.1 million TEUs in 2008. This translates to average annual growth of 7.8% from 1990 through 2008.

As a result of the sustained growth at these ports, their share of the U.S. container trade grew from 28.8% in 1990 to a high of 38.4% in 2006, before settling slightly, to 36.4% of the entire U.S. container trade in 2008. The total market share gain between 1990 and 2008 was 7.6%.

**Figure 7 – Container Traffic Trends for the Ports of Los Angeles and Long Beach
Full International Containers**



Source: BST Associates, PIERS Global Container Report

Trade Value by State

The estimates of the economic impacts of containerized trade presented later in this document are based on the value of containerized trade moving through the Ports of Los Angeles and Long Beach. These estimated values are presented in the following table.

**Table 3 – Trade Value via the Ports of Los Angeles and Long Beach
by State in FY2008 (\$ millions)**

State	Exports	Imports	Total	State	Exports	Imports	Total
Alabama	651.6	2,465.6	3,117.3	Montana	8.0	603.5	611.4
Alaska	3.4	620.6	624.1	Nebraska	539.0	1,206.0	1,745.0
Arizona	521.7	9,815.5	10,337.2	Nevada	91.5	4,131.9	4,223.4
Arkansas	559.5	3,329.6	3,889.1	New Hampshire	25.4	496.7	522.1
California	16,120.3	55,646.5	71,766.8	New Jersey	339.3	2,921.4	3,260.7
Colorado	310.0	3,143.3	3,453.3	New Mexico	44.8	2,050.5	2,095.4
Connecticut	134.2	1,282.4	1,416.6	New York	534.7	6,265.9	6,800.6
Delaware	18.2	313.5	331.7	North Carolina	416.3	4,808.3	5,224.6
Dist. of Columbia	4.1	168.7	172.8	North Dakota	21.8	423.2	445.0
Florida	161.3	8,384.5	8,545.8	Ohio	1,646.8	10,566.9	12,213.6
Georgia	384.7	4,704.6	5,089.3	Oklahoma	374.0	4,003.1	4,377.0
Hawaii	3.0	1,024.2	1,027.2	Oregon	156.6	465.0	621.6
Idaho	22.1	1,014.9	1,037.0	Pennsylvania	672.8	4,584.1	5,256.9
Illinois	4,544.2	11,336.1	15,880.3	Rhode Island	18.9	376.8	395.7
Indiana	1,314.1	6,311.7	7,625.7	South Carolina	156.2	2,323.0	2,479.2
Iowa	887.4	2,883.5	3,770.9	South Dakota	19.8	535.8	555.6
Kansas	955.7	2,618.4	3,574.1	Tennessee	1,363.6	3,199.5	4,563.1
Kentucky	1,069.3	3,890.9	4,960.2	Texas	7,975.6	26,705.5	34,681.1
Louisiana	1,324.4	4,926.9	6,251.2	Utah	407.5	1,874.9	2,282.4
Maine	9.8	473.5	483.3	Vermont	5.7	239.4	245.2
Maryland	73.1	1,907.0	1,980.1	Virginia	152.3	2,768.4	2,920.7
Massachusetts	196.8	2,300.1	2,496.9	Washington	481.7	786.3	1,268.0
Michigan	1,574.9	8,935.9	10,510.8	West Virginia	404.6	650.3	1,054.9
Minnesota	932.0	4,829.3	5,761.3	Wisconsin	1,178.2	5,585.4	6,763.6
Mississippi	282.8	1,497.6	1,780.4	Wyoming	18.5	404.9	423.4
Missouri	901.7	5,238.1	6,139.9	United States	50,014.2	237,039.4	287,053.6

Source: BST Associates using data from U.S. Department of Commerce, PIERS, WISERTrade

The export values presented above are based on data from World Institute for Strategic Economic Research (WISERTrade). WISERTrade was formerly known as “MISER”, or the Massachusetts Institute for Social and Economic Research. The organization was formerly based at the University of Massachusetts, but is now part of Holyoke Community College in Massachusetts. WISERTrade produces estimates of exports for each state based on detailed analysis of the U.S. Department of Commerce’s Export Declarations.

Two data sets from WISERTrade were used to estimate the economic impact of each state’s exports through the Ports of Los Angeles and Long Beach. The first set of data included the total value of trade moving from each state through each port, without commodity detail. This is reported in the table above. The second set included the total value exported through each state,

with commodity detail, but without port details. The port export shares from the first table were used to allocate the export values by commodity group for each state.

For imports, BST Associates estimated the value of imports moving to each state based on data from PIERS, the Corps of Engineers, the Department of Commerce, the Bureau of Labor Statistics, the Intermodal Association of North America and the U.S. Census Bureau. PIERS data includes estimates of the value of cargo moving in containers, as well as an address associated with each shipment. However, after testing this address information BST Associates concluded that it was not reliable enough for use in producing regional impact estimates. Problems with this address information included foreign addresses, unknown addresses, locations of company headquarters rather than shipping locations, and other problems. As a result, BST devised an alternate method for estimating trade value for each region.

This alternate method was based on estimating the demand for wholesale and retail goods in each region. Imported commodities were first coded as being destined for retail markets or for inputs to manufacturing (intermediate products and raw materials). Approximately 95% of the containerized imports moving through the Ports of Los Angeles and Long Beach originate in Pacific Rim countries, and the model assumes that the demand for goods from the Pacific Rim is consistent across regions. Reported cargo volumes to regional rail hubs were compiled and then retail goods were allocated to states within regions based on population, while manufacturing inputs were allocated to regions based on manufacturing employment. Containerized cargo imported from non-Pacific Rim countries accounts for less than 5% of the total volume at these two ports, and was assumed to stay in the Southwest region.

Overview of Trade Impacts

Description of Trade Impacts

A port complex generates several levels of economic impact. At the local level, the port directly impacts transportation services and other related businesses, such as steamship agents, stevedores, customs brokers, truck drivers, warehousemen, and other service providers. The revenues and employment associated with these transportation-related providers could cease to exist if the port were to close down or become less efficient and lose its cargo base. Hence, this employment base, which is primarily located in the immediate area or region, is directly impacted by port activities.

A much larger group of businesses that is less directly related to the port includes the businesses that produce or consume the products that move through the port - the importers and exporters. These businesses use the port facilities because they are the most efficient and thus reduce transportation costs.

Summary of Impacts in 2005

Table 4 summarizes the national trade impacts⁴ associated with imports and exports flowing through the Ports of Los Angeles and Long Beach. The total value of international trade via the Ports of Los Angeles and Long Beach to/from U.S. importers and exporters was \$287.1 billion in

⁴ All trade impacts presented in this study are for fiscal year 2008 (October 2007 to September 2008).

FY2008⁵, with \$50.0 billion in exports and \$237.0 billion in imports. The trade impacts associated with international containerized trade via the Ports of Los Angeles and Long Beach included:

- Total output of approximately \$413.8 billion in FY2008, including export value of \$112.0 billion and import value of \$301.8 billion.
- Income of \$116.5 billion in the U.S. economy, with \$25.7 billion from exports and \$90.8 billion from imports,
- Approximately 3.4 million total jobs (0.62 million jobs tied to exports and 2.75 million jobs tied to imports), and
- \$29.9 billion in state and local taxes (\$2.5 billion associated with exports and \$27.4 billion associated with imports).

Table 4 – Summary of Trade Impacts for Containerized Trade via the Ports of Los Angeles and Long Beach in FY2008 (\$ billions)

Item	Exports	Imports	Total
Trade Value	\$50.0	\$237.0	\$287.1
<i>Economic Impacts:</i>			
Output	\$112.0	\$301.8	\$413.8
Income	\$25.7	\$90.8	\$116.5
Total Jobs	624,731	2,753,605	3,378,336
State & Local Taxes	\$2.5	\$27.4	\$29.9

Source: BST Associates, PIERS, US Department of Commerce, U.S. Bureau of Economic Analysis, WISERTrade,

Comparison of FY2008 Trade Impacts with Trade Impacts in 1994, 2000 and 2005

Table 5 compares the employment impacts estimated in the current analysis with those from earlier studies completed in 1994, 2000, 2005 and FY2008. The first analysis was conducted for the Alameda Corridor project using 1994 data, while the second analysis was a part of the ONTRAC project, using year 2000 data. The third report used 2005 data and the current report uses FY2008 data. The value of international trade via the Ports of Los Angeles and Long Beach to/from U.S. importers and exporters increased from \$74 billion in 1994 to \$287 billion dollars in FY2008, which represented a gain of 288%.

The number of jobs associated with this trade grew from approximately 1.1 million in 1994 to 3.4 million in FY2008, representing an increase of 216%. The number of jobs has undoubtedly grown significantly; however, a change in methodology in the current study accounts for some of the increase in jobs. In the 2000 analysis, it was assumed that only 33% of the imports were destined for retail markets. In the current analysis, after detailed assessment of commodity descriptions, it is estimated that 75% of imports are destined for retail markets. As a result, the 2000 impact assessment underestimated the impacts of imports, resulting in an undercount of the employment impact.

⁵ A small portion of trade through the Ports is in-transit trade, which passes through the U.S. on its way to another country (usually to Mexico from the Ports of Los Angeles and Long Beach). The impacts of in-transit trade are not included in this analysis.

Table 5 – Comparison of Impacts from International Containerized Trade via the Ports of Los Angeles and Long Beach in 1994, 2000, 2005 and FY2008

	<i>Trade Value (\$ billions)</i>			<i>Jobs</i>		
	<i>Exports</i>	<i>Imports</i>	<i>Total</i>	<i>Exports</i>	<i>Imports</i>	<i>Total</i>
<i>Value</i>						
1994	\$23	\$51	\$74	325,000	745,000	1,070,000
2000	\$31	\$166	\$196	494,000	1,528,000	2,022,000
2005	\$35	\$221	\$256	466,000	2,840,000	3,306,000
2008	\$50	\$237	\$287	625,000	2,754,000	3,378,000
<i>Change</i>						
1994-2000	\$8	\$115	\$122	169,000	783,000	952,000
2000-2005	\$4	\$55	\$60	(28,000)	1,312,000	1,284,000
2005-2008	\$15	\$16	\$31	159,000	(86,000)	72,000
1994-2008	\$27	\$186	\$213	300,000	2,009,000	2,308,000
<i>% Change</i>						
1994-2000	35%	225%	165%	52%	105%	89%
2000-2005	13%	33%	31%	-6%	86%	64%
2005-2008	43%	7%	12%	34%	-3%	2%
1994-2008	117%	365%	288%	92%	270%	216%

Source: BST Associates

Detailed Results at the State Level

Exports

Methodology

For every state the value of trade was summarized by industry group, and then economic impact multipliers were applied to the trade value to generate impact estimates. The primary sources of data for the export analysis were WISERTrade export data and Bureau of Economic Analysis RIMS II impact multipliers.

Trade value data was obtained from WISERTrade. WISERTrade, formerly known as MISER, works with the U.S. Department of Commerce to develop a summary of export declaration data at the state level. Two data sets from WISERTrade were used in this analysis, one of which reports the total value of exports moving through each U.S. port from each state, and the other that reports total export value for each state and commodity. BST Associates created a concordance between the commodity codes in the WISERTrade data and the industry groups used in the RIMS II multipliers. State export values from the second WISERTrade data set were summarized by industry group, then allocated to the Ports of Los Angeles and Long Beach based on the first WISERTrade data set.

For each state and commodity group, the economic impact of exports moving through the Ports of Los Angeles and Long Beach were estimated combining the value estimates derived from the WISERTrade data and economic impact multipliers from the U.S. Bureau of Economic Analysis Regional Input-Output Modeling System (RIMS II) model. Impacts were calculated for output, income, and employment.

Details for each state and each type of impact are presented in the following sections.

Please note that totals may not add due to rounding.

Output

Output refers to the value of production (or sales) that is created within the economy by export trade. In addition to the direct impact of export sales, exports have broad impacts on the economy: export firms purchase inputs (materials, components, equipment) from their suppliers, and the value of these purchases constitutes the indirect impact of exports. In addition, employees of the exporter and supplier firms purchase consumer goods and services. The value of these purchases comprises the induced impact of exports. In this study, the total impact associated with exports (including direct, indirect and induced impacts) of exports was estimated using RIMS II multipliers, which are prepared by state and by industry sector.

The State of California is used as an example to illustrate the methodology. As shown in Table 6 on the next page, the WISERTrade data indicate that \$16.1 billion of goods produced in California were exported in containers through the Ports of Los Angeles and Long Beach in FY2008. The export data are arrayed by industry sector in the table. In the aggregate, these products have an average multiplier of 2.22, and exports of these goods create a total output impact of \$35.8 billion.

Table 6 – Containerized California Exports through the Ports of Los Angeles and Long Beach - Output Impacts by Industry Sector in FY2008 (\$ millions)

Sector/Product	Exports (\$ millions)	Output Multipliers	Total Output (\$ millions)
Crop and animal production	9	2.03	\$3,118.4
Forestry, fishing, and related activities	\$51.1	2.33	\$119.1
Oil and gas extraction	\$0.4	1.86	\$0.8
Mining, except oil and gas	\$12.9	1.87	\$24.0
Wood product manufacturing	\$31.6	2.11	\$66.8
Nonmetallic mineral product manufacturing	\$110.9	2.18	\$242.3
Primary metal manufacturing	\$304.3	1.83	\$555.3
Fabricated metal product manufacturing	\$419.6	2.10	\$883.1
Machinery manufacturing	\$1,848.0	2.24	\$4,134.6
Computer and electronic product manufacturing	\$834.8	2.52	\$2,101.8
Electrical equipment and appliance manufacturing	\$418.9	2.11	\$885.2
Motor vehicle, body, trailer, and parts manufacturing	\$1,013.8	1.99	\$2,013.8
Furniture and related product manufacturing	\$55.5	2.28	\$126.3
Miscellaneous manufacturing	\$588.9	2.32	\$1,366.1
Food, beverage, and tobacco product manufacturing	\$1,833.4	2.40	\$4,400.5
Textile and textile product mills	\$126.8	2.12	\$268.7
Apparel, leather, and allied product manufacturing	\$229.0	2.31	\$528.9
Paper manufacturing	\$213.0	2.00	\$426.5
Petroleum and coal products manufacturing	\$51.8	1.74	\$90.0
Chemical manufacturing	\$2,759.0	2.19	\$6,028.5
Plastics and rubber products manufacturing	\$428.2	1.99	\$853.7
Publishing including software	\$0.0	2.35	\$0.0
Unknown	\$3,253.0	2.33	\$7,579.5
Total	\$16,120.3	2.22	\$35,814.0

Source: BST Associates using data from WISERTrade and U.S. Bureau of Economic Analysis

A similar analysis was performed for each state, and Table 7 on the following page provides a summary estimate of the total output impact associated with export trade through the Ports of Los Angeles and Long Beach. The \$50.0 billion of containerized exports in FY2008 generated an estimated \$112.0 billion in total output nationwide, with an average output multiplier of 2.24. In other words, for every \$1.00 in export trade, there was \$2.24 in total output.

Table 7 – Output Estimates for Containerized Exports through the Ports of Los Angeles and Long Beach - By State in FY2008 (\$ millions)

State	Exports (\$ millions)	Output Multiplier	Total Output (\$ millions)	State	Exports (\$ millions)	Output Multiplier	Total Output (\$ millions)
Alabama	\$651.6	2.19	\$1,427.57	Montana	\$8.0	1.85	\$14.8
Alaska	\$3.4	1.79	\$6.09	Nebraska	\$539.0	2.34	\$1,261.6
Arizona	\$521.7	1.86	\$970.58	Nevada	\$91.5	1.67	\$152.7
Arkansas	\$559.5	2.14	\$1,197.89	New Hampshire	\$25.4	1.92	\$48.9
California	\$16,120.3	2.22	\$35,813.95	New Jersey	\$339.3	2.13	\$721.3
Colorado	\$310.0	2.19	\$680.08	New Mexico	\$44.8	1.81	\$81.2
Connecticut	\$134.2	1.91	\$255.68	New York	\$534.7	1.86	\$995.8
Delaware	\$18.2	1.88	\$34.27	North Carolina	\$416.3	2.16	\$899.5
Dist. of Columbia	\$4.1	1.22	\$5.01	North Dakota	\$21.8	1.86	\$40.5
Florida	\$161.3	1.85	\$298.87	Ohio	\$1,646.8	2.30	\$3,791.7
Georgia	\$384.7	2.19	\$844.14	Oklahoma	\$374.0	2.11	\$790.5
Hawaii	\$3.0	1.77	\$5.32	Oregon	\$156.6	1.93	\$302.5
Idaho	\$22.1	2.06	\$45.47	Pennsylvania	\$672.8	2.28	\$1,534.5
Illinois	\$4,544.2	2.39	\$10,842.76	Rhode Island	\$18.9	1.81	\$34.1
Indiana	\$1,314.1	2.11	\$2,769.00	South Carolina	\$156.2	2.18	\$339.9
Iowa	\$887.4	2.09	\$1,852.51	South Dakota	\$19.8	2.15	\$42.6
Kansas	\$955.7	2.21	\$2,114.98	Tennessee	\$1,363.6	2.16	\$2,947.2
Kentucky	\$1,069.3	2.12	\$2,271.99	Texas	\$7,975.6	2.48	\$19,778.4
Louisiana	\$1,324.4	2.17	\$2,874.52	Utah	\$407.5	2.11	\$859.9
Maine	\$9.8	2.03	\$19.86	Vermont	\$5.7	1.77	\$10.1
Maryland	\$73.1	1.89	\$137.91	Virginia	\$152.3	2.02	\$307.1
Massachusetts	\$196.8	1.98	\$389.20	Washington	\$481.7	1.95	\$940.8
Michigan	\$1,574.9	2.16	\$3,394.96	West Virginia	\$404.6	1.94	\$783.5
Minnesota	\$932.0	2.18	\$2,029.54	Wisconsin	\$1,178.2	2.13	\$2,506.3
Mississippi	\$282.8	2.00	\$566.72	Wyoming	\$18.5	1.85	\$34.1
Missouri	\$901.7	2.18	\$1,963.54	United States	\$50,014.2	2.24	\$112,032.1

Source: BST Associates using data from WISERTrade and U.S. Bureau of Economic Analysis

Income

Total income impacts (direct, indirect and induced) were estimated using the RIMS II earnings multipliers for each state and industry group.

The State of California is used as an example to illustrate the methodology. As shown in Table 8 the RIMS II input-output model estimates that there is \$0.47 in total income in crop and animal production industry for every \$1.00 in sales. In FY2008 an estimated \$1.54 billion worth of products from the crop and animal production industry group were produced in California and exported through the Ports of Los Angeles and Long Beach. The total income associated with the crop and animal production industry exports is \$719 million.

Table 8 – Income Impacts for Containerized California Exports through the Ports of Los Angeles and Long Beach by Industry Sector in FY2008 (\$ millions)

Sector/Product	Exports (\$ millions)	Earnings Multipliers	Total Income (\$ millions)
Crop and animal production	\$1,535.49	0.47	\$719.84
Forestry, fishing, and related activities	\$51.06	0.92	\$46.76
Oil and gas extraction	\$0.42	0.47	\$0.20
Mining, except oil and gas	\$12.85	0.48	\$6.15
Wood product manufacturing	\$31.64	0.53	\$16.80
Nonmetallic mineral product manufacturing	\$110.94	0.55	\$60.86
Primary metal manufacturing	\$304.28	0.38	\$115.05
Fabricated metal product manufacturing	\$419.63	0.55	\$230.84
Machinery manufacturing	\$1,848.02	0.58	\$1,064.65
Computer and electronic product manufacturing	\$834.82	0.74	\$620.52
Electrical equipment and appliance manufacturing	\$418.88	0.54	\$225.15
Motor vehicle, body, trailer, and parts manufacturing	\$1,013.81	0.43	\$434.11
Furniture and related product manufacturing	\$55.48	0.61	\$33.76
Miscellaneous manufacturing	\$588.86	0.70	\$415.03
Food, beverage, and tobacco product manufacturing	\$1,833.40	0.52	\$953.74
Textile and textile product mills	\$126.78	0.53	\$67.77
Apparel, leather, and allied product manufacturing	\$228.97	0.73	\$167.86
Paper manufacturing	\$213.02	0.46	\$98.01
Petroleum and coal products manufacturing	\$51.76	0.31	\$16.08
Chemical manufacturing	\$2,759.03	0.48	\$1,317.71
Plastics and rubber products manufacturing	\$428.18	0.44	\$188.96
Publishing including software	\$0.00		\$0.00
Unknown	\$3,252.97	0.68	\$2,220.89
Total	\$16,120.29	0.56	\$9,020.71

Source: BST Associates using data from WISERTrade and U.S. Bureau of Economic Analysis

Table 9 provides a summary estimate of the total income effects associated with export trade through the Ports of Los Angeles and Long Beach, for each state. The value of trade exports, which was \$50.0 billion in FY2008, generated an estimated \$25.7 billion in total income, with an earnings multiplier of 0.51 (i.e., for every \$1.00 in export trade, there was \$0.51 in total income effects).

**Table 9 – Income Estimates for Containerized Exports
via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)**

State	Exports (\$ millions)	Earnings Multiplier	Total Income (\$ millions)	State	Exports (\$ millions)	Earnings Multiplier	Total Income (\$ millions)
Alabama	\$651.60	0.47	\$303.06	Montana	\$8.00	0.37	\$2.93
Alaska	\$3.40	0.35	\$1.20	Nebraska	\$539.00	0.46	\$245.35
Arizona	\$521.70	0.46	\$239.04	Nevada	\$91.50	0.35	\$31.81
Arkansas	\$559.50	0.43	\$239.74	New Hampshire	\$25.40	0.47	\$12.02
California	\$16,120.30	0.56	\$9,020.71	New Jersey	\$339.30	0.46	\$155.91
Colorado	\$310.00	0.52	\$162.14	New Mexico	\$44.80	0.45	\$20.08
Connecticut	\$134.20	0.44	\$59.09	New York	\$534.70	0.45	\$240.12
Delaware	\$18.20	0.30	\$5.38	North Carolina	\$416.30	0.49	\$205.33
Dist. of Columbia	\$4.10	0.05	\$0.23	North Dakota	\$21.80	0.36	\$7.94
Florida	\$161.30	0.46	\$74.38	Ohio	\$1,646.80	0.52	\$859.43
Georgia	\$384.70	0.49	\$189.82	Oklahoma	\$374.00	0.47	\$176.81
Hawaii	\$3.00	0.45	\$1.36	Oregon	\$156.60	0.44	\$69.06
Idaho	\$22.10	0.47	\$10.48	Pennsylvania	\$672.80	0.51	\$345.62
Illinois	\$4,544.20	0.54	\$2,472.21	Rhode Island	\$18.90	0.44	\$8.28
Indiana	\$1,314.10	0.45	\$591.48	South Carolina	\$156.20	0.49	\$75.77
Iowa	\$887.40	0.42	\$369.12	South Dakota	\$19.80	0.41	\$8.14
Kansas	\$955.70	0.41	\$391.57	Tennessee	\$1,363.60	0.47	\$643.90
Kentucky	\$1,069.30	0.42	\$452.30	Texas	\$7,975.60	0.54	\$4,306.51
Louisiana	\$1,324.40	0.42	\$560.20	Utah	\$407.50	0.46	\$185.94
Maine	\$9.80	0.48	\$4.75	Vermont	\$5.70	0.45	\$2.56
Maryland	\$73.10	0.41	\$29.92	Virginia	\$152.30	0.44	\$67.46
Massachusetts	\$196.80	0.46	\$90.83	Washington	\$481.70	0.42	\$203.95
Michigan	\$1,574.90	0.50	\$788.47	West Virginia	\$404.60	0.37	\$151.30
Minnesota	\$932.00	0.50	\$468.71	Wisconsin	\$1,178.20	0.49	\$583.13
Mississippi	\$282.80	0.39	\$111.66	Wyoming	\$18.50	0.42	\$7.82
Missouri	\$901.70	0.44	\$396.61	United States	\$50,014.20	0.51	\$25,651.58

Source: BST Associates using data from WISERTrade and U.S. Bureau of Economic Analysis

Jobs

Total employment impacts (direct, indirect and induced) were also estimated using RIMS II employment multipliers. Employment is measured in full-time equivalent jobs (FTEs).

Again, using California as an example, the RIMS II input-output model estimates that there are 17.66 jobs in the crop and animal production industry for every \$1,000,000 in sales. As shown in Table 10, there were \$1.54 billion of export sales of from crop and animal production in FY2008, which generated 27,000 jobs. Across all sectors the Ports of Los Angeles and Long Beach handled \$16.12 billion in California exports, with a total employment impact of more than 209,000 jobs.

Table 10 - Employment Impacts for Containerized California Exports through the Ports of Los Angeles and Long Beach by Industry Sector in FY2008

Sector/Product	Exports (\$ millions)	Employment Multipliers	Total Jobs
Crop and animal production	\$1,535.49	17.66	27,123
Forestry, fishing, and related activities	\$51.06	33.00	1,685
Oil and gas extraction	\$0.42	7.09	3
Mining, except oil and gas	\$12.85	9.07	117
Wood product manufacturing	\$31.64	14.00	443
Nonmetallic mineral product manufacturing	\$110.94	11.68	1,296
Primary metal manufacturing	\$304.28	7.77	2,365
Fabricated metal product manufacturing	\$419.63	12.42	5,212
Machinery manufacturing	\$1,848.02	11.37	21,018
Computer and electronic product manufacturing	\$834.82	13.03	10,880
Electrical equipment and appliance manufacturing	\$418.88	11.28	4,727
Motor vehicle, body, trailer, and parts manufacturing	\$1,013.81	9.20	9,332
Furniture and related product manufacturing	\$55.48	15.57	864
Miscellaneous manufacturing	\$588.86	13.73	8,087
Food, beverage, and tobacco product manufacturing	\$1,833.40	12.37	22,676
Textile and textile product mills	\$126.78	14.05	1,782
Apparel, leather, and allied product manufacturing	\$228.97	20.75	4,752
Paper manufacturing	\$213.02	9.80	2,087
Petroleum and coal products manufacturing	\$51.76	4.72	245
Chemical manufacturing	\$2,759.03	8.88	24,490
Plastics and rubber products manufacturing	\$428.18	10.18	4,359
Publishing including software	\$0.00		-
Unknown	\$3,252.97	17.20	55,952
Total	\$16,120.29	13.00	209,492

Source: BST Associates using data from WISERTrade and U.S. Bureau of Economic Analysis

Table 11 provides a summary of the estimated total employment effects with export trade flowing via the Ports of Los Angeles and Long Beach for each state. The value of trade exports, which was \$50.0 billion in FY2008, generated nearly 625,000 total jobs, with an employment multiplier of 12.49 (including direct, indirect and induced effects). This means that, on average, every \$1,000,000 of containerized exports moving through the Ports of Los Angeles and Long Beach generates 12.49 jobs (FTE) in the United States.

Table 11 – Employment Estimates for Containerized Exports via the Ports of Los Angeles and Long Beach by State in FY2008 (FTE)

State	Direct Output (\$ millions)	Employment Multiplier	Total Jobs	State	Direct Output (\$ millions)	Employment Multiplier	Total Jobs
Alabama	\$651.60	11.96	7,795	Montana	\$8.00	1,333.02	10,664
Alaska	\$3.40	16.34	56	Nebraska	\$539.00	0.15	82
Arizona	\$521.70	11.40	5,946	Nevada	\$91.50	87.29	7,987
Arkansas	\$559.50	12.71	7,114	New Hampshire	\$25.40	27.26	692
California	\$16,120.30	13.00	209,492	New Jersey	\$339.30	0.84	286
Colorado	\$310.00	12.49	3,872	New Mexico	\$44.80	75.81	3,396
Connecticut	\$134.20	9.34	1,253	New York	\$534.70	1.05	560
Delaware	\$18.20	5.93	108	North Carolina	\$416.30	13.43	5,591
Dist. of Columbia	\$4.10	1.42	6	North Dakota	\$21.80	237.66	5,181
Florida	\$161.30	11.84	1,910	Ohio	\$1,646.80	0.17	284
Georgia	\$384.70	11.99	4,613	Oklahoma	\$374.00	55.77	20,859
Hawaii	\$3.00	14.14	42	Oregon	\$156.60	31.71	4,965
Idaho	\$22.10	13.98	309	Pennsylvania	\$672.80	3.42	2,298
Illinois	\$4,544.20	12.61	57,309	Rhode Island	\$18.90	412.88	7,803
Indiana	\$1,314.10	10.90	14,319	South Carolina	\$156.20	1.45	227
Iowa	\$887.40	12.29	10,907	South Dakota	\$19.80	99.50	1,970
Kansas	\$955.70	14.24	13,612	Tennessee	\$1,363.60	0.22	299
Kentucky	\$1,069.30	10.80	11,546	Texas	\$7,975.60	2.00	15,971
Louisiana	\$1,324.40	14.86	19,687	Utah	\$407.50	239.70	97,678
Maine	\$9.80	16.90	166	Vermont	\$5.70	870.86	4,964
Maryland	\$73.10	9.24	676	Virginia	\$152.30	0.48	73
Massachusetts	\$196.80	9.68	1,904	Washington	\$481.70	3.47	1,672
Michigan	\$1,574.90	11.54	18,169	West Virginia	\$404.60	15.18	6,144
Minnesota	\$932.00	12.67	11,809	Wisconsin	\$1,178.20	2.94	3,459
Mississippi	\$282.80	11.98	3,388	Wyoming	\$18.50	835.24	15,452
Missouri	\$901.70	11.83	10,664	United States	\$50,014.20	12.49	624,731

Source: BST Associates using data from WISERTrade and U.S. Bureau of Economic Analysis

Tax Revenues

The international trade moving through the Ports of Los Angeles and Long Beach generates state and local taxes in the states and localities where the goods are shipped or received. These taxes include: Sales taxes (including general, gasoline, alcoholic beverages, tobacco, public utilities, insurance receipts and other taxes), local taxes (including property, general, public utilities, and other taxes), Motor vehicle licenses, and other taxes.

Table 12 provides a summary estimate of the estimated state and local taxes associated with export trade flowing via the Ports of Los Angeles and Long Beach. The value of trade exports, which was \$50.0 billion in FY2008, generated \$2.5 billion in state and local taxes, with an effective tax rate of 5.0%.

Table 12 – Estimated State & Local Taxes for Containerized Exports through the Ports of Los Angeles and Long Beach in FY2008

State	Direct Output (\$ millions)	Tax Rate	Total S & L Taxes (\$ millions)	State	Direct Output (\$ millions)	Tax Rate	Total S & L Taxes (\$ millions)
Alabama	\$651.6	4.2%	\$27.4	Montana	\$8.0	5.4%	\$0.43
Alaska	\$3.4	9.3%	\$0.3	Nebraska	\$539.0	5.4%	\$29.11
Arizona	\$521.7	4.9%	\$25.6	Nevada	\$91.5	4.6%	\$4.21
Arkansas	\$559.5	4.3%	\$24.1	New Hampshire	\$25.4	5.1%	\$1.30
California	\$16,120.3	4.8%	\$773.8	New Jersey	\$339.3	4.5%	\$15.27
Colorado	\$310.0	4.1%	\$12.7	New Mexico	\$44.8	5.7%	\$2.56
Connecticut	\$134.2	3.9%	\$5.2	New York	\$534.7	6.3%	\$33.69
Delaware	\$18.2	3.7%	\$0.7	North Carolina	\$416.3	3.7%	\$15.40
Dist. of Columbia	\$4.1	3.9%	\$0.2	North Dakota	\$21.8	6.6%	\$1.44
Florida	\$161.3	5.4%	\$8.7	Ohio	\$1,646.8	4.7%	\$77.40
Georgia	\$384.7	4.0%	\$15.4	Oklahoma	\$374.0	5.5%	\$20.57
Hawaii	\$3.0	5.4%	\$0.2	Oregon	\$156.6	3.8%	\$5.95
Idaho	\$22.1	4.3%	\$1.0	Pennsylvania	\$672.8	4.8%	\$32.30
Illinois	\$4,544.2	5.3%	\$240.8	Rhode Island	\$18.9	5.2%	\$0.98
Indiana	\$1,314.1	4.5%	\$59.1	South Carolina	\$156.2	4.4%	\$6.87
Iowa	\$887.4	4.3%	\$38.2	South Dakota	\$19.8	5.2%	\$1.03
Kansas	\$955.7	5.5%	\$52.6	Tennessee	\$1,363.6	4.5%	\$61.36
Kentucky	\$1,069.3	4.4%	\$47.0	Texas	\$7,975.6	5.6%	\$446.63
Louisiana	\$1,324.4	6.2%	\$82.1	Utah	\$407.5	3.9%	\$15.89
Maine	\$9.8	5.9%	\$0.6	Vermont	\$5.7	5.5%	\$0.32
Maryland	\$73.1	4.7%	\$3.4	Virginia	\$152.3	3.7%	\$5.64
Massachusetts	\$196.8	4.0%	\$7.9	Washington	\$481.7	5.8%	\$27.94
Michigan	\$1,574.9	4.3%	\$67.7	West Virginia	\$404.6	6.6%	\$26.71
Minnesota	\$932.0	4.9%	\$45.7	Wisconsin	\$1,178.2	4.4%	\$51.84
Mississippi	\$282.8	5.8%	\$16.4	Wyoming	\$18.5	9.6%	\$1.78
Missouri	\$901.7	3.9%	\$35.2	United States	\$50,014.2	5.0%	\$2,478.38

Source: BST Associates using data from WISERTrade and U.S. Bureau of Economic Analysis

Imports

Methodology

The methodology used for estimating the economic impact of imports was similar to that used for exports, in that RIMS II multipliers were used to convert the value of trade goods into jobs, income, and output. However, there are also important differences in the methodology used in determining the values used as inputs to the impact calculations.

For exports, the total value of the goods exported was used. Imports tend to have a more limited impact on a per-dollar basis, because they do not require as many inputs as exports. For example, exports require the purchase of raw materials, transportation of materials to the manufacturer, labor and capital to manufacture the goods, and transportation of finished goods from the manufacturer. In contrast, imports primarily require wholesale distribution to retailers or manufacturers, and labor and capital associated with retail sales.

Wholesale & Retail Margins

In order to assure that the impact estimates for imports focused on just wholesale and retail trade, two steps were used to convert the value of containerized imports into wholesale and retail figures. The first step was to classify imports as being destined for retail trade or for use in the production of goods. Then, margins were applied to determine the share of import value associated with retail and production uses. Specifically, the wholesale margin was applied to all commodities, while the retail margin was applied to only those goods destined for retail trade.

In order to estimate state level economic impacts from wholesale and retail trade, it is necessary to distinguish the value created by the retailer and wholesaler from that of the manufacturer that made the item. In an input-output model, this is accomplished by adding appropriate margins to the producer price (price at the factory) to yield the price paid by the consumer (purchaser price). The purchaser price = producer price + transportation margin + wholesale margin + retail margin. (This will help in understanding Table 13).

To estimate multiplier effects of retail purchases, the portion of the sale accruing to the retailer, wholesaler, shipper and manufacturer must be separated. The retail margin goes to the retail trade sector, while the producer price accrues to the manufacturer of the item. Imports are manufactured overseas and thus only the retail, wholesale and transportation margins will accrue to the state as direct sales. In this analysis, only wholesale and retail output was included. Most of the transportation activity associated with Port activity in Los Angeles and Long Beach is local, accruing to the counties immediately surrounding the Ports. These impacts have been calculated separately by the Ports of Los Angeles and Long Beach.

Wholesale & Retail Direct Output

Table 13 on the next page presents a summary of the combined wholesale and retail margins associated with containerized imports moving through the Ports of Los Angeles and Long Beach. The resulting direct output values are the figures used as inputs to the economic impact calculations. For example, the total value of imports destined for California was estimated to be \$55.6 billion in FY2008. The average combined wholesale and retail margin for these goods is 0.63, so the resulting direct output value is \$35.3 billion.

The margin in California is relatively high, because of the larger share of wholesale activity that occurs in California relative to other states. Nationally, the average margin is 0.59, and the \$237.0 billion in imported goods create a calculated direct output of \$140.6 billion.

Table 13 – Direct Output from Retail and Wholesale Activity Associated with Imports Via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)

State	Imports (\$ millions)	Margin	Direct Output (\$ millions)	State	Imports (\$ millions)	Margin	Direct Output (\$ millions)
Alabama	\$2,465.6	0.58	\$1,422.5	Montana	\$603.5	0.56	\$337.2
Alaska	\$620.6	0.46	\$288.1	Nebraska	\$1,206.0	0.53	\$638.3
Arizona	\$9,815.5	0.48	\$4,718.8	Nevada	\$4,131.9	0.46	\$1,920.7
Arkansas	\$3,329.6	0.59	\$1,963.9	New Hampshire	\$496.7	0.54	\$268.5
California	\$55,646.5	0.63	\$35,315.7	New Jersey	\$2,921.4	0.58	\$1,696.1
Colorado	\$3,143.3	0.55	\$1,732.9	New Mexico	\$2,050.5	0.63	\$1,298.9
Connecticut	\$1,282.4	0.55	\$706.0	New York	\$6,265.9	0.60	\$3,745.5
Delaware	\$313.5	0.56	\$174.7	North Carolina	\$4,808.3	0.58	\$2,797.3
Dist. of Columbia	\$168.7	0.65	\$109.2	North Dakota	\$423.2	0.54	\$227.7
Florida	\$8,384.5	0.63	\$5,275.7	Ohio	\$10,566.9	0.59	\$6,209.9
Georgia	\$4,704.6	0.61	\$2,854.2	Oklahoma	\$4,003.1	0.61	\$2,444.0
Hawaii	\$1,024.2	0.51	\$522.0	Oregon	\$465.0	0.61	\$284.7
Idaho	\$1,014.9	0.53	\$542.7	Pennsylvania	\$4,584.1	0.55	\$2,515.4
Illinois	\$11,336.1	0.60	\$6,853.5	Rhode Island	\$376.8	0.56	\$210.2
Indiana	\$6,311.7	0.56	\$3,549.3	South Carolina	\$2,323.0	0.58	\$1,355.7
Iowa	\$2,883.5	0.57	\$1,651.0	South Dakota	\$535.8	0.53	\$286.4
Kansas	\$2,618.4	0.58	\$1,524.2	Tennessee	\$3,199.5	0.59	\$1,875.2
Kentucky	\$3,890.9	0.59	\$2,299.8	Texas	\$26,705.5	0.61	\$16,315.8
Louisiana	\$4,926.9	0.60	\$2,979.5	Utah	\$1,874.9	0.52	\$983.8
Maine	\$473.5	0.56	\$263.6	Vermont	\$239.4	0.53	\$127.8
Maryland	\$1,907.0	0.58	\$1,102.9	Virginia	\$2,768.4	0.56	\$1,550.3
Massachusetts	\$2,300.1	0.56	\$1,293.4	Washington	\$786.3	0.62	\$487.6
Michigan	\$8,935.9	0.60	\$5,347.4	West Virginia	\$650.3	0.56	\$362.9
Minnesota	\$4,829.3	0.59	\$2,828.5	Wisconsin	\$5,585.4	0.56	\$3,135.9
Mississippi	\$1,497.6	0.59	\$883.0	Wyoming	\$404.9	0.49	\$198.6
Missouri	\$5,238.1	0.60	\$3,150.3	United States	\$237,039.4	0.59	\$140,627.4

Source: BST Associates, using data from PIERS and U.S. Bureau of Economic Analysis

Total Output

Output refers to the value of production (or sales) that is created within the domestic economy by import trade. The estimated direct output associated with import trade was estimated by applying using wholesale and retail trade margins to the import value, in the previous step. Applying RIMS II multipliers to this direct output produces an estimate of the total output associated with the imports. As described previously in this document, the total output combines direct output with indirect and induced outputs. (The value of other purchases by firms using inputs, such as materials, components, and equipment, comprise the indirect impact of imports. In addition, when employees of the importing firms and their suppliers spend wages on consumer goods and services this creates induced impacts).

As shown in Table 14, the \$140.6 billion in direct output creates total output nationwide of \$301.8 billion, with an average output multiplier of 2.15.

Table 14 – Total Output from Retail and Wholesale Activity Associated with Imports Via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)

State	Direct Output (\$ millions)	Output Multiplier	Total Output (\$ millions)	State	Direct Output (\$ millions)	Output Multiplier	Total Output (\$ millions)
Alabama	\$1,422.49	1.90	\$2,697.3	Montana	\$337.23	1.77	\$597.48
Alaska	\$288.07	1.70	\$489.2	Nebraska	\$638.34	1.89	\$1,206.38
Arizona	\$4,718.77	2.24	\$10,571.6	Nevada	\$1,920.68	2.07	\$3,970.90
Arkansas	\$1,963.90	1.83	\$3,587.0	New Hampshire	\$268.46	1.85	\$497.75
California	\$35,315.70	2.47	\$87,361.2	New Jersey	\$1,696.08	2.10	\$3,559.50
Colorado	\$1,732.89	2.20	\$3,813.5	New Mexico	\$1,298.88	1.76	\$2,285.29
Connecticut	\$706.02	1.86	\$1,312.1	New York	\$3,745.52	1.91	\$7,137.83
Delaware	\$174.73	1.75	\$305.7	North Carolina	\$2,797.27	2.02	\$5,637.51
Dist. of Columbia	\$109.18	1.35	\$147.5	North Dakota	\$227.72	1.75	\$398.56
Florida	\$5,275.70	1.96	\$10,358.7	Ohio	\$6,209.92	2.05	\$12,715.92
Georgia	\$2,854.23	2.20	\$6,275.3	Oklahoma	\$2,444.04	1.96	\$4,789.93
Hawaii	\$521.97	1.90	\$994.4	Oregon	\$284.74	1.93	\$550.43
Idaho	\$542.65	1.84	\$997.9	Pennsylvania	\$2,515.40	2.10	\$5,277.16
Illinois	\$6,853.50	2.24	\$15,373.8	Rhode Island	\$210.18	1.80	\$379.04
Indiana	\$3,549.34	1.92	\$6,810.5	South Carolina	\$1,355.72	1.93	\$2,622.15
Iowa	\$1,651.05	1.83	\$3,015.6	South Dakota	\$286.42	1.74	\$497.95
Kansas	\$1,524.25	1.87	\$2,857.2	Tennessee	\$1,875.17	2.05	\$3,842.98
Kentucky	\$2,299.80	1.88	\$4,335.0	Texas	\$16,315.84	2.22	\$36,244.04
Louisiana	\$2,979.51	1.84	\$5,471.3	Utah	\$983.81	2.14	\$2,104.11
Maine	\$263.62	1.83	\$482.1	Vermont	\$127.79	1.66	\$212.29
Maryland	\$1,102.92	1.98	\$2,184.2	Virginia	\$1,550.30	2.00	\$3,103.16
Massachusetts	\$1,293.40	1.97	\$2,550.7	Washington	\$487.58	2.03	\$989.36
Michigan	\$5,347.40	1.94	\$10,397.6	West Virginia	\$362.86	1.65	\$598.24
Minnesota	\$2,828.51	2.08	\$5,871.5	Wisconsin	\$3,135.95	1.92	\$6,020.48
Mississippi	\$882.96	1.77	\$1,563.4	Wyoming	\$198.62	1.56	\$309.14
Missouri	\$3,150.34	2.03	\$6,395.1	United States	\$140,627.44	2.15	\$301,766.85

Source: BST Associates, using data from PIERS and U.S. Bureau of Economic Analysis

Income

Table 15 presents a summary of the total income from wholesale and retail activity associated with containerized imports moving via the Ports of Los Angeles and Long Beach, by state. For example, in California the income multiplier of 0.76 means that for every \$1.00 in direct output, \$0.76 of income is generated. Applying this multiplier to the estimated direct output of wholesale and retail trade activity associated with imports of \$35.3 billion, the total estimated income impact in California is \$26.8 billion.

Nationwide the income multiplier is 0.65, and the \$140.6 billion in direct output is estimated to generate \$90.8 billion of income.

Table 15 – Total Income from Retail and Wholesale Activity Associated with Imports via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)

State	Direct Output (\$ millions)	Income Multiplier	Total Income (\$ millions)	State	Direct Output (\$ millions)	Income Multiplier	Total Income (\$ millions)
Alabama	\$1,422.5	0.57	\$817.6	Montana	\$337.2	0.55	\$184.4
Alaska	\$288.1	0.51	\$147.6	Nebraska	\$638.3	0.57	\$361.3
Arizona	\$4,718.8	0.69	\$3,279.1	Nevada	\$1,920.7	0.63	\$1,216.5
Arkansas	\$1,963.9	0.55	\$1,075.9	New Hampshire	\$268.5	0.52	\$140.4
California	\$35,315.7	0.76	\$26,812.9	New Jersey	\$1,696.1	0.59	\$992.8
Colorado	\$1,732.9	0.67	\$1,158.9	New Mexico	\$1,298.9	0.54	\$705.5
Connecticut	\$706.0	0.54	\$382.0	New York	\$3,745.5	0.53	\$1,991.9
Delaware	\$174.7	0.44	\$76.1	North Carolina	\$2,797.3	0.61	\$1,708.4
Dist. of Columbia	\$109.2	0.12	\$13.1	North Dakota	\$227.7	0.50	\$114.8
Florida	\$5,275.7	0.61	\$3,230.1	Ohio	\$6,209.9	0.61	\$3,805.7
Georgia	\$2,854.2	0.66	\$1,877.7	Oklahoma	\$2,444.0	0.60	\$1,456.3
Hawaii	\$522.0	0.59	\$305.9	Oregon	\$284.7	0.57	\$161.8
Idaho	\$542.7	0.56	\$306.2	Pennsylvania	\$2,515.4	0.62	\$1,548.8
Illinois	\$6,853.5	0.66	\$4,548.3	Rhode Island	\$210.2	0.50	\$105.6
Indiana	\$3,549.3	0.57	\$2,018.4	South Carolina	\$1,355.7	0.58	\$780.6
Iowa	\$1,651.0	0.54	\$898.5	South Dakota	\$286.4	0.52	\$150.2
Kansas	\$1,524.2	0.52	\$791.2	Tennessee	\$1,875.2	0.60	\$1,116.6
Kentucky	\$2,299.8	0.54	\$1,239.1	Texas	\$16,315.8	0.67	\$10,865.2
Louisiana	\$2,979.5	0.56	\$1,678.9	Utah	\$983.8	0.65	\$637.2
Maine	\$263.6	0.57	\$149.7	Vermont	\$127.8	0.48	\$61.8
Maryland	\$1,102.9	0.56	\$622.2	Virginia	\$1,550.3	0.57	\$884.0
Massachusetts	\$1,293.4	0.58	\$746.8	Washington	\$487.6	0.61	\$296.8
Michigan	\$5,347.4	0.61	\$3,244.0	West Virginia	\$362.9	0.47	\$171.0
Minnesota	\$2,828.5	0.63	\$1,768.0	Wisconsin	\$3,135.9	0.59	\$1,844.3
Mississippi	\$883.0	0.53	\$468.4	Wyoming	\$198.6	0.47	\$94.3
Missouri	\$3,150.3	0.57	\$1,782.5	United States	\$140,627.4	0.65	\$90,835.2

Source: BST Associates, using data from PIERS and U.S. Bureau of Economic Analysis

Jobs

Table 16 presents a summary of the total employment associated with wholesale and retail activity from imports moving via the Ports of Los Angeles and Long Beach Bay ports by state. For example, in California the total employment from wholesale and retail trade activity is estimated at 717,636 jobs. The multiplier of 20.32 means that for every \$1 million in direct output, 20.32 FTE jobs are created.

Nationally, the employment multiplier is 21.06, and the \$140.6 billion in direct output produced an estimated 2.75 million jobs in FY2008.

Table 16 – Total Employment from Retail and Wholesale Activity Associated with Imports via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)

State	Direct Output (\$ millions)	Employment Multiplier	Total Jobs	State	Direct Output (\$ millions)	Employment Multiplier	Total Jobs
Alabama	\$1,422.5	19.43	27,644	Montana	\$337.2	21.06	7,301
Alaska	\$288.1	17.52	5,047	Nebraska	\$638.3	21.06	13,445
Arizona	\$4,718.8	21.34	100,695	Nevada	\$1,920.7	19.57	37,589
Arkansas	\$1,963.9	19.95	39,189	New Hampshire	\$268.5	15.42	4,141
California	\$35,315.7	20.32	717,636	New Jersey	\$1,696.1	16.58	28,128
Colorado	\$1,732.9	20.51	35,542	New Mexico	\$1,298.9	19.17	24,894
Connecticut	\$706.0	15.32	10,813	New York	\$3,745.5	15.37	57,564
Delaware	\$174.7	13.52	2,362	North Carolina	\$2,797.3	19.78	55,330
Dist. of Columbia	\$109.2	3.89	425	North Dakota	\$227.7	19.54	4,451
Florida	\$5,275.7	18.87	99,571	Ohio	\$6,209.9	20.45	126,962
Georgia	\$2,854.2	19.74	56,337	Oklahoma	\$2,444.0	20.93	51,151
Hawaii	\$522.0	20.30	10,595	Oregon	\$284.7	18.32	5,217
Idaho	\$542.7	20.23	10,976	Pennsylvania	\$2,515.4	19.17	48,228
Illinois	\$6,853.5	19.36	132,665	Rhode Island	\$210.2	15.77	3,315
Indiana	\$3,549.3	20.11	71,363	South Carolina	\$1,355.7	19.95	27,044
Iowa	\$1,651.0	20.10	33,183	South Dakota	\$286.4	20.51	5,874
Kansas	\$1,524.2	18.72	28,528	Tennessee	\$1,875.2	18.32	34,358
Kentucky	\$2,299.8	19.28	44,329	Texas	\$16,315.8	19.31	315,058
Louisiana	\$2,979.5	18.89	56,271	Utah	\$983.8	22.15	21,792
Maine	\$263.6	20.95	5,522	Vermont	\$127.8	17.31	2,212
Maryland	\$1,102.9	16.76	18,484	Virginia	\$1,550.3	17.92	27,777
Massachusetts	\$1,293.4	16.23	20,995	Washington	\$487.6	17.91	8,733
Michigan	\$5,347.4	19.67	105,187	West Virginia	\$362.9	18.12	6,576
Minnesota	\$2,828.5	20.10	56,844	Wisconsin	\$3,135.9	20.66	64,796
Mississippi	\$883.0	19.25	16,995	Wyoming	\$198.6	17.99	3,573
Missouri	\$3,150.3	19.33	60,898	United States	\$140,627.4	19.58	2,753,605

Source: BST Associates, using data from PIERS and U.S. Bureau of Economic Analysis

Tax Revenues

As indicated previously, state and local taxes include sales taxes and property taxes, among others. Using California as an example, the estimated state and local tax associated with imports was \$6.5 billion in FY2008, as shown in Table 17. The estimated tax rate of all state and local taxes associated with containerized imports for California was 18.7% of output.

The combined state and local tax rate varies widely among the states, from a low of 3.8% in Oregon and 4.0% in Delaware, to a high of 25.7% in Arizona and 24.5% in Nevada, which depends on relative sales tax policies. The national average is 19.5%, and the \$140.6 billion of direct output associated with imports in FY2008 produced an estimated \$27.4 billion in state and local taxes.

Table 17 – Total Tax Revenue from Retail and Wholesale Activity Associated with Imports via the Ports of Los Angeles and Long Beach by State in FY2008 (\$ millions)

State	Direct Output (\$ millions)	Estimated Tax Rate	S & Tax (\$ millions)	State	Direct Output (\$ millions)	Estimated Tax Rate	S & Tax (\$ millions)
Alabama	\$1,422.5	19.5%	\$277.8	Montana	\$337.2	6.2%	\$20.8
Alaska	\$288.1	21.8%	\$62.7	Nebraska	\$638.3	22.4%	\$143.2
Arizona	\$4,718.8	25.7%	\$1,214.4	Nevada	\$1,920.7	24.5%	\$469.8
Arkansas	\$1,963.9	19.4%	\$381.7	New Hampshire	\$268.5	5.5%	\$14.9
California	\$35,315.7	18.7%	\$6,594.4	New Jersey	\$1,696.1	18.2%	\$308.4
Colorado	\$1,732.9	19.8%	\$343.6	New Mexico	\$1,298.9	22.7%	\$294.5
Connecticut	\$706.0	17.1%	\$121.0	New York	\$3,745.5	22.3%	\$835.5
Delaware	\$174.7	4.0%	\$7.0	North Carolina	\$2,797.3	18.1%	\$505.8
Dist. of Columbia	\$109.2	17.7%	\$19.3	North Dakota	\$227.7	22.8%	\$51.8
Florida	\$5,275.7	19.5%	\$1,029.4	Ohio	\$6,209.9	18.3%	\$1,135.4
Georgia	\$2,854.2	14.6%	\$416.9	Oklahoma	\$2,444.0	22.8%	\$558.0
Hawaii	\$522.0	17.0%	\$89.0	Oregon	\$284.7	3.8%	\$10.8
Idaho	\$542.7	16.6%	\$90.0	Pennsylvania	\$2,515.4	20.2%	\$508.9
Illinois	\$6,853.5	22.9%	\$1,572.7	Rhode Island	\$210.2	20.8%	\$43.7
Indiana	\$3,549.3	17.2%	\$609.9	South Carolina	\$1,355.7	16.8%	\$227.6
Iowa	\$1,651.0	17.1%	\$282.7	South Dakota	\$286.4	19.8%	\$56.6
Kansas	\$1,524.2	21.3%	\$324.3	Tennessee	\$1,875.2	23.6%	\$442.4
Kentucky	\$2,299.8	17.5%	\$402.0	Texas	\$16,315.8	20.6%	\$3,364.2
Louisiana	\$2,979.5	23.9%	\$711.7	Utah	\$983.8	19.7%	\$194.0
Maine	\$263.6	17.2%	\$45.4	Vermont	\$127.8	18.6%	\$23.8
Maryland	\$1,102.9	16.2%	\$178.2	Virginia	\$1,550.3	14.9%	\$230.6
Massachusetts	\$1,293.4	15.2%	\$196.9	Washington	\$487.6	22.9%	\$111.8
Michigan	\$5,347.4	17.5%	\$934.3	West Virginia	\$362.9	20.2%	\$73.2
Minnesota	\$2,828.5	20.1%	\$567.5	Wisconsin	\$3,135.9	16.0%	\$502.6
Mississippi	\$883.0	20.4%	\$179.9	Wyoming	\$198.6	22.3%	\$44.3
Missouri	\$3,150.3	18.4%	\$579.4	United States	\$140,627.4	19.5%	\$27,404.7

Source: BST Associates, using data from Ernst & Young, Tax Policy Institute and Tax Foundation

Congressional District Trade Value

BST Associates prepared an analysis of trade moving through the Ports of Los Angeles and Long Beach for all 435 U.S. Congressional districts. This analysis included an estimate of the value of both exports and imports moving through the two ports, by firms in each district. It also includes information on individual shippers; where possible, data was provided on names of shippers, lines of business, number of employees, total sales, and value of trade through the Ports of Los Angeles and Long Beach.

Methodology

The methodology used in this analysis is substantially different than that used for calculating statewide economic impacts. As a result, the results are not directly comparable.

Although the allocations by state methodology employed in the analysis produces valid statewide results, the same allocation methodology becomes far less accurate when applying it to smaller geographic areas.

The primary difference in methodology is that the statewide economic impact calculations were based on 1) estimated demand for imports in each state, and 2) allocated export values. The congressional district values in this section are not based on any allocation to states, but are instead based on the address information included in the PIERS data. **At the Congressional District level, firms are identified that are engaged in the container transaction but this does not imply that the product in the container is consumed or used in that District.** As a result, adding the congressional district total for each state will not produce the same trade figures as those used in the impact estimates.

This analysis was developed by combining PIERS containerized trade volume with value information from the Department of Commerce/Corps of Engineers waterborne trade data. As discussed earlier in this report, the address information in PIERS contains a number of problems that make it difficult to determine where firms are located. In addition to the foreign addresses and missing addresses noted previously, another significant problem is that the same firm is often described in different ways for the same location.

PIERS assigns a 14-digit company number to every company that appears in the import and export data. Theoretically, the first 8 digits of this code refer to the parent company and the remaining 6 digits refer to specific locations of that company. One significant problem is that different spellings will be used for the same company at the same location, resulting in different 14-digit company numbers. Another common problem is that a company may have a street address missing, but it shares the same city, state, ZIP code, and name as another firm in the database. Given that there are more than 1.8 million records in the import database alone, it would be impossible to check each individual record for accuracy. Instead, a database of company numbers, names, and address was created from the database, and a significant effort was made to edit this for accuracy.

Once the database of names was complete the address information contained in it was used to assign latitude and longitude coordinates. The latitude and longitude are a necessary part in

determining congressional districts. Two different programs were used for this geocoding step in order to obtain as many matches as possible.

Next, GIS software was used to create a map that contained congressional districts for the 110th Congress, as well as the geocoded importer and exporter data from the previous step. The GIS software was then used to append the congressional district name to each geocoded record.

The final step was obtaining contact information for firms in each congressional district, using Dun and Bradstreet as the source for contact. The goal of this step was to deliver a list of people to contact at 10 firms in every district. Using the geocoded exporters and importer data, a list was created of the top exporting and importing firms in each congressional district, based on value of trade. This list was uploaded to Dun and Bradstreet, where that firm matched the submitted data to their database of companies. The result of these steps are the maps of containerized international trade that moves between the Ports of Los Angeles and Long Beach and each congressional district, as well as a separate file listing company contacts in every district.

Results

The House of Representatives is made up of 435 elected representatives, apportioned based on population, with every state guaranteed at least one representative. At the time of apportionment the average Congressional District has a population of approximately 647,000, based on the 2000 census. However, this varies substantially. Seven states have only one Representative, and the population of these states varies from a current low of 493,782 for Wyoming to a high of 902,195 for Montana.

Figure 8 – Location of Shippers Using the Ports of Los Angeles and Long Beach in FY2008

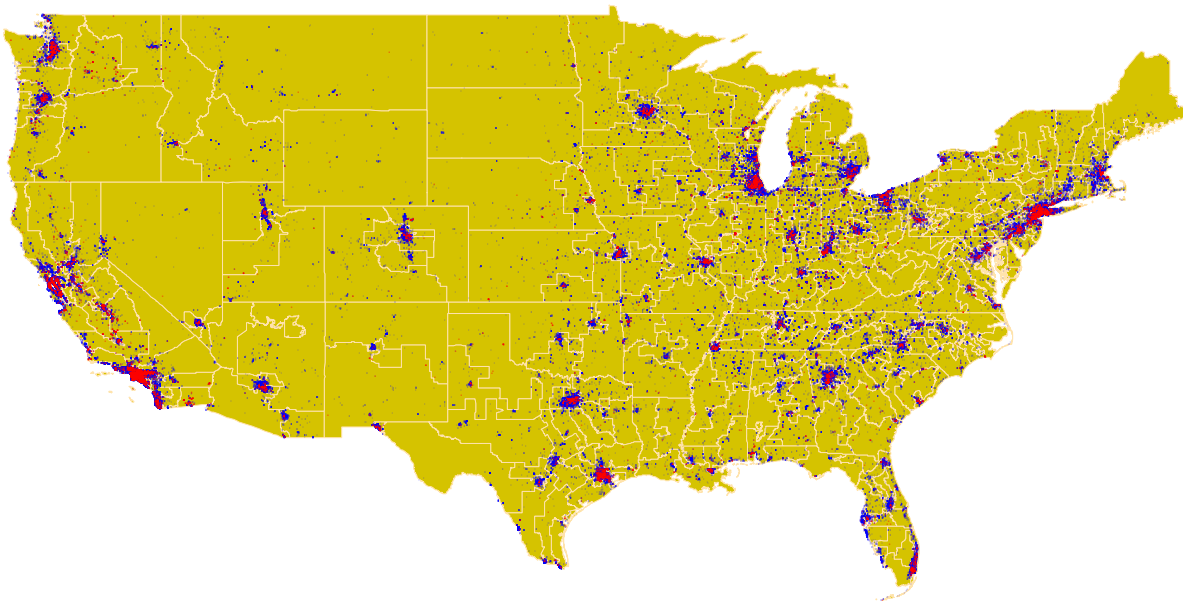


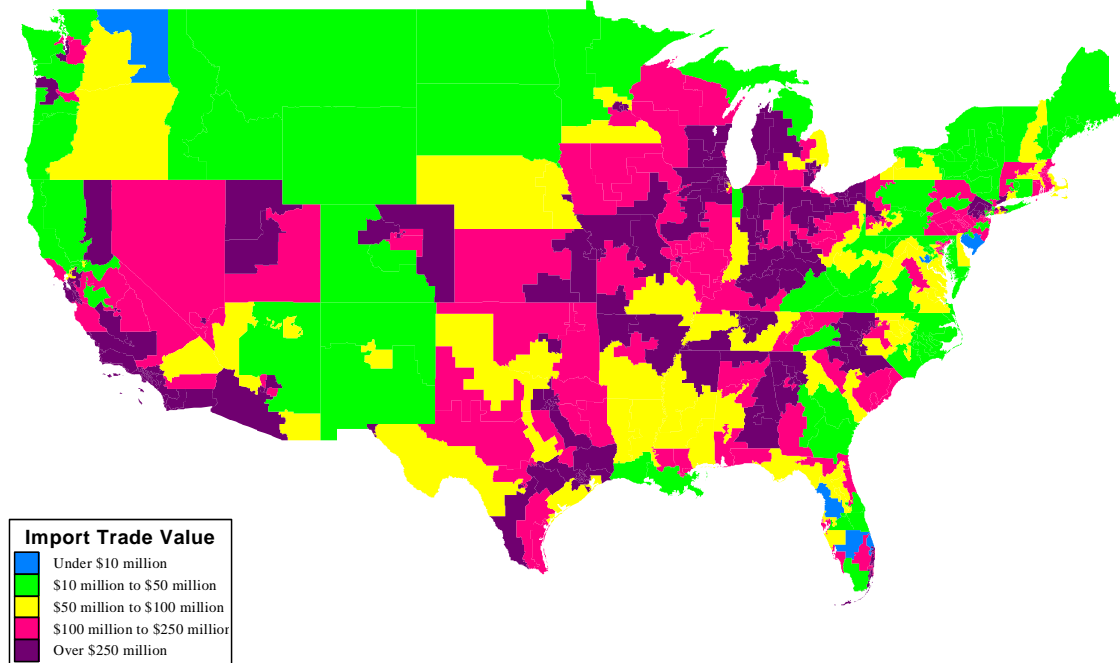
Figure 8 presents a geocoded map of importers and exporters that use the Ports of Los Angeles and Long Beach, by Congressional District. There is at least one firm in every

Congressional District in the United States that ships goods in or out through the Ports of Los Angeles and Long Beach.

Figures 9 through 11 demonstrate just how geographically diverse the hinterland is for these two ports. A detailed file with the names, addresses and phone numbers of importers and exporters is also being provided to ACTA and the Ports of Los Angeles and Long Beach.

Figure 9 presents total trade value by Congressional District.

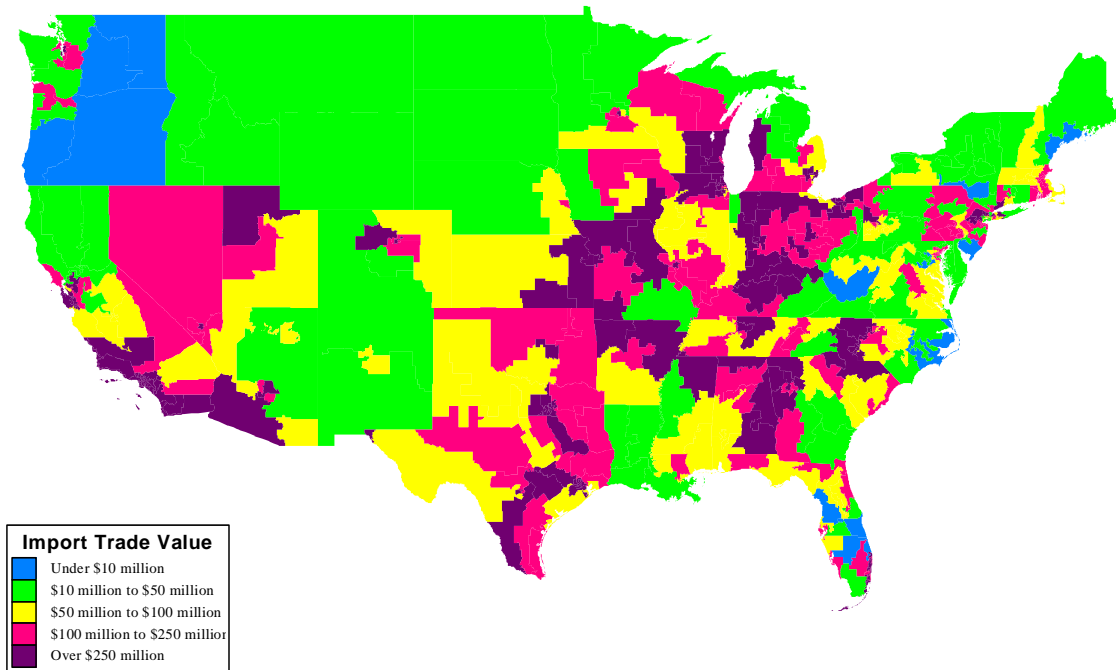
Figure 9 – Value of All Trade Moving Through the Los Angeles-Long Beach Ports, by Congressional District (FY2008)



Source: BST Associates

Figure 10 presents the value of imports by Congressional District.

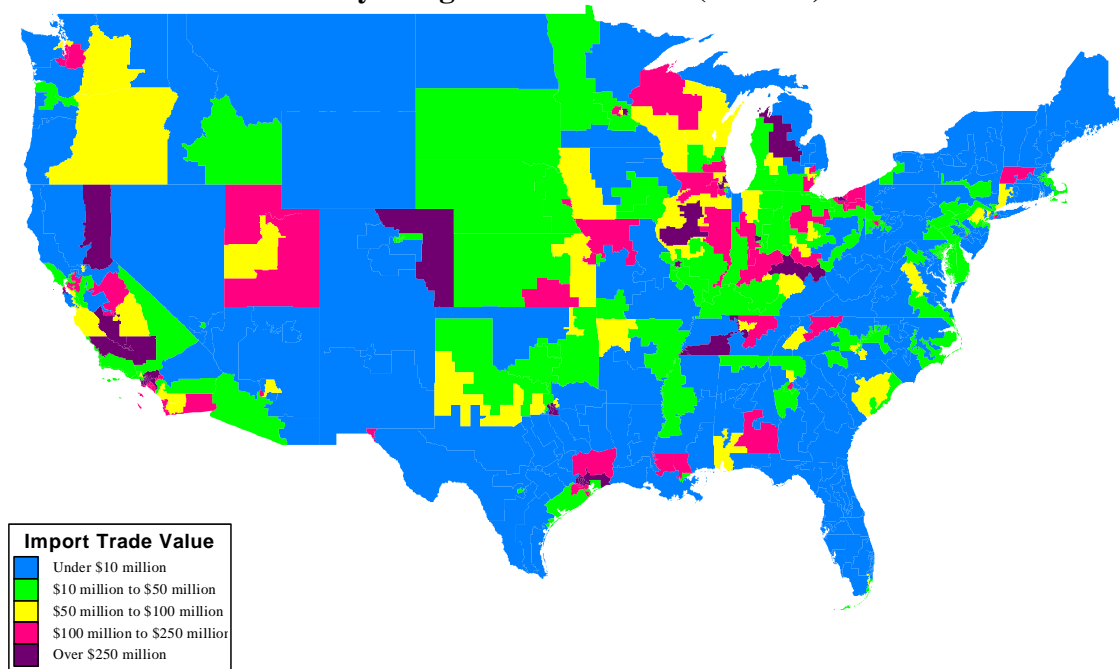
**Figure 10 – Value of Imports Moving Through the Los Angeles-Long Beach Ports,
by Congressional District (FY2008)**



Source: BST Associates

Figure 11 presents the value of exports by Congressional District.

**Figure 11 – Value of Exports Moving Through the Los Angeles-Long Beach Ports,
by Congressional District (FY2008)**



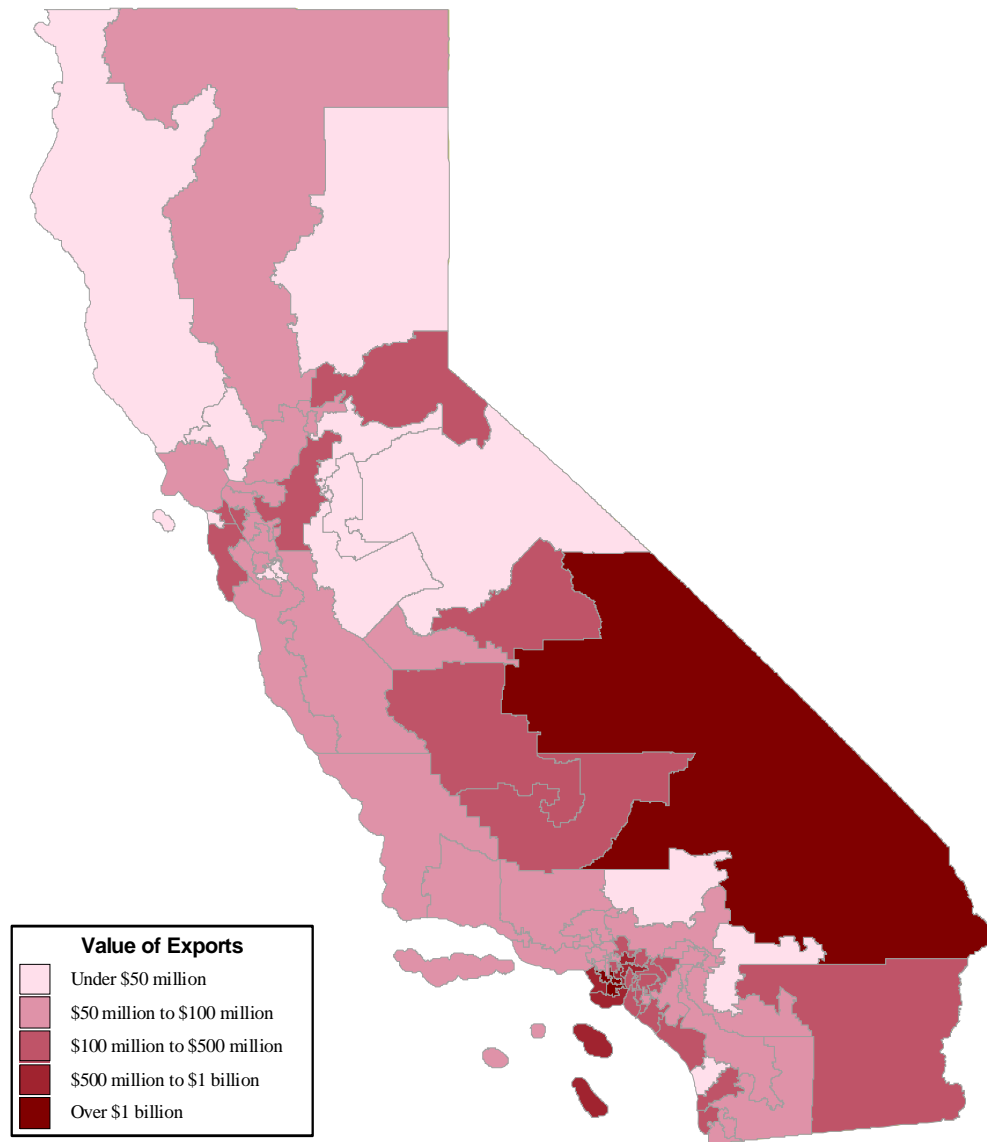
Source: BST Associates

State Assembly and State Senate District Trade Value

Similar to the analysis of U.S. Congressional districts, BST Associates prepared an analysis of trade moving through the Ports of Los Angeles and Long Beach for all State Assembly and State Senate districts in California. The methodology used was the same as that used for Congressional districts, and is explained in the preceding section.

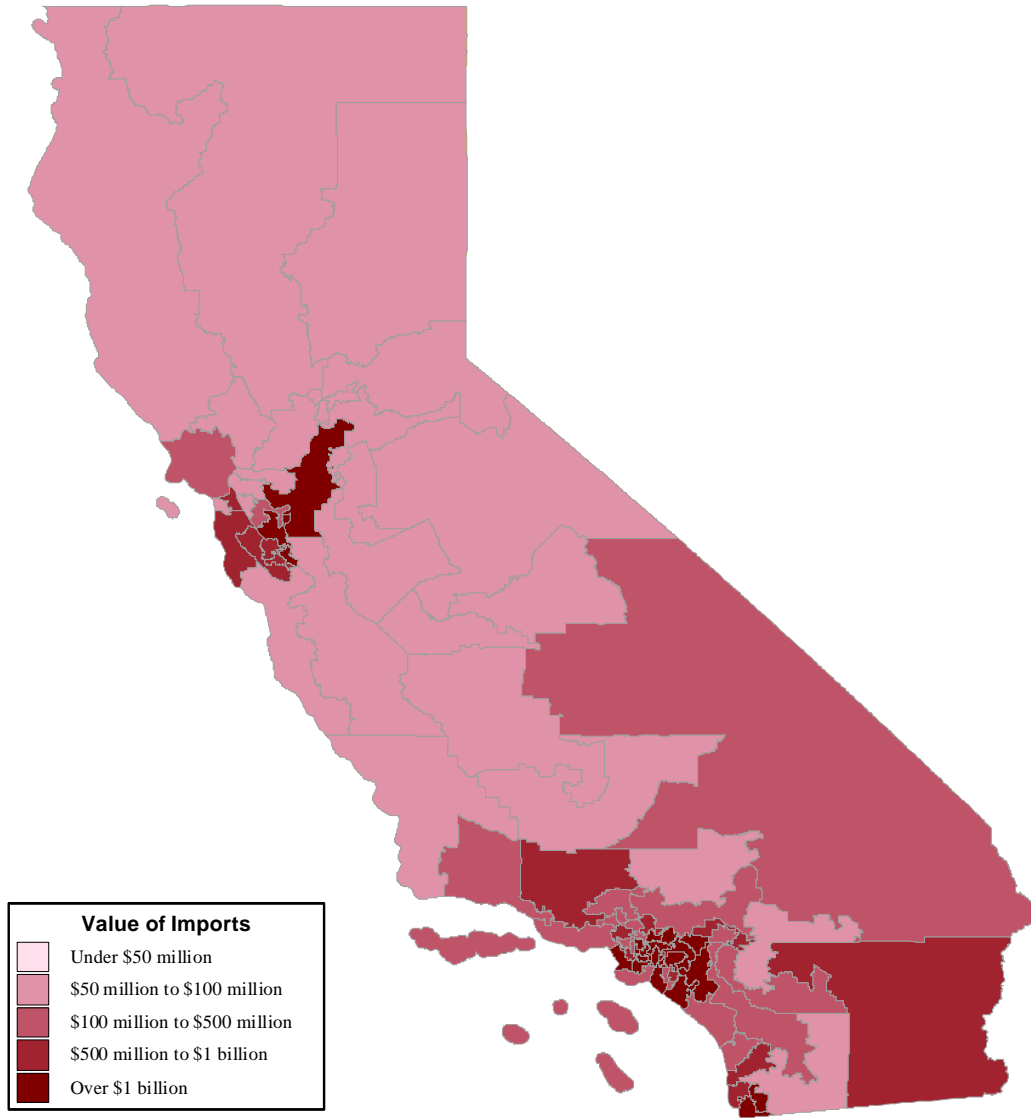
State Assembly

Figure 12 – Value of Exports Moving Through the Los Angeles-Long Beach Ports, by State Assembly District (FY2008)



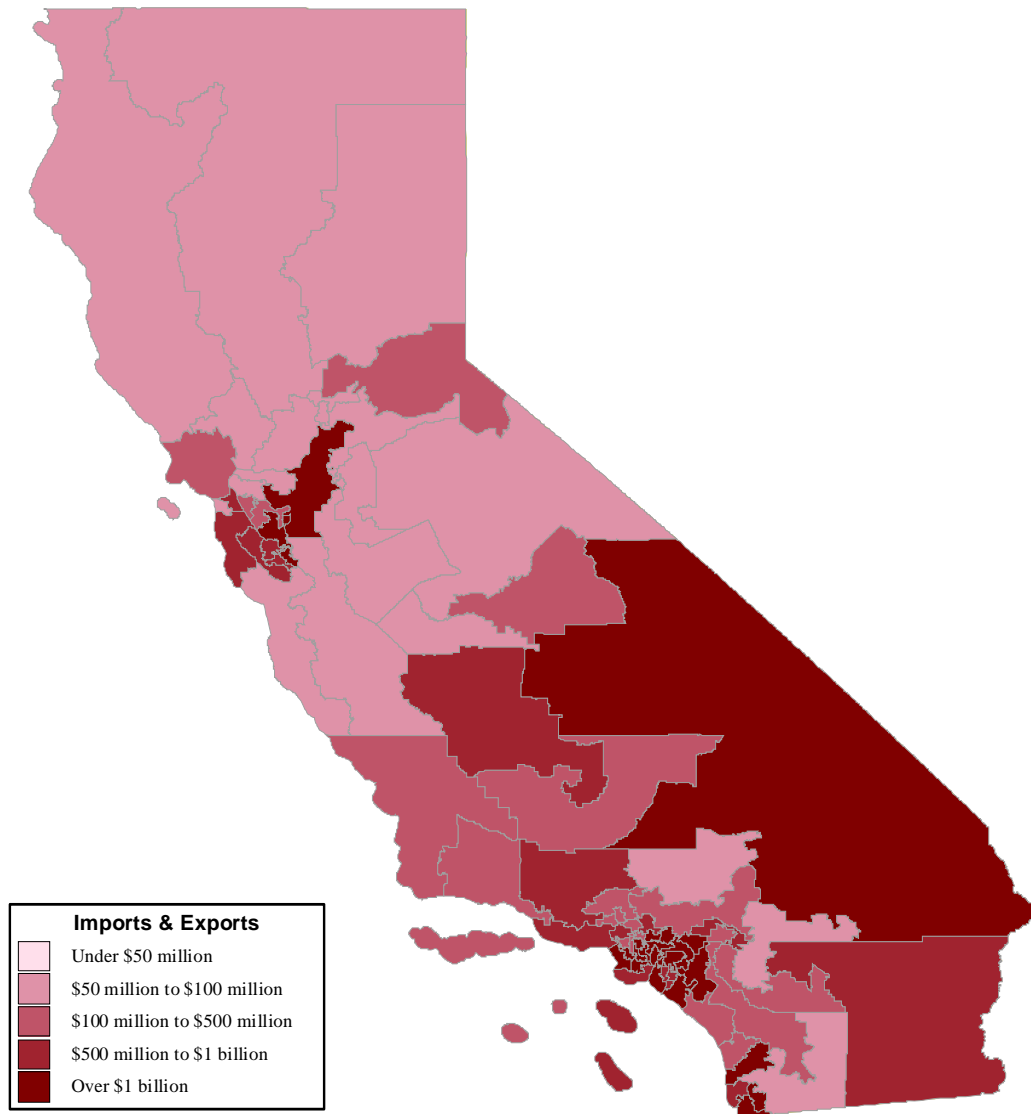
Source: BST Associates

**Figure 13 – Value of Imports Moving Through the Los Angeles-Long Beach Ports,
by State Assembly District (FY2008)**



Source: BST Associates

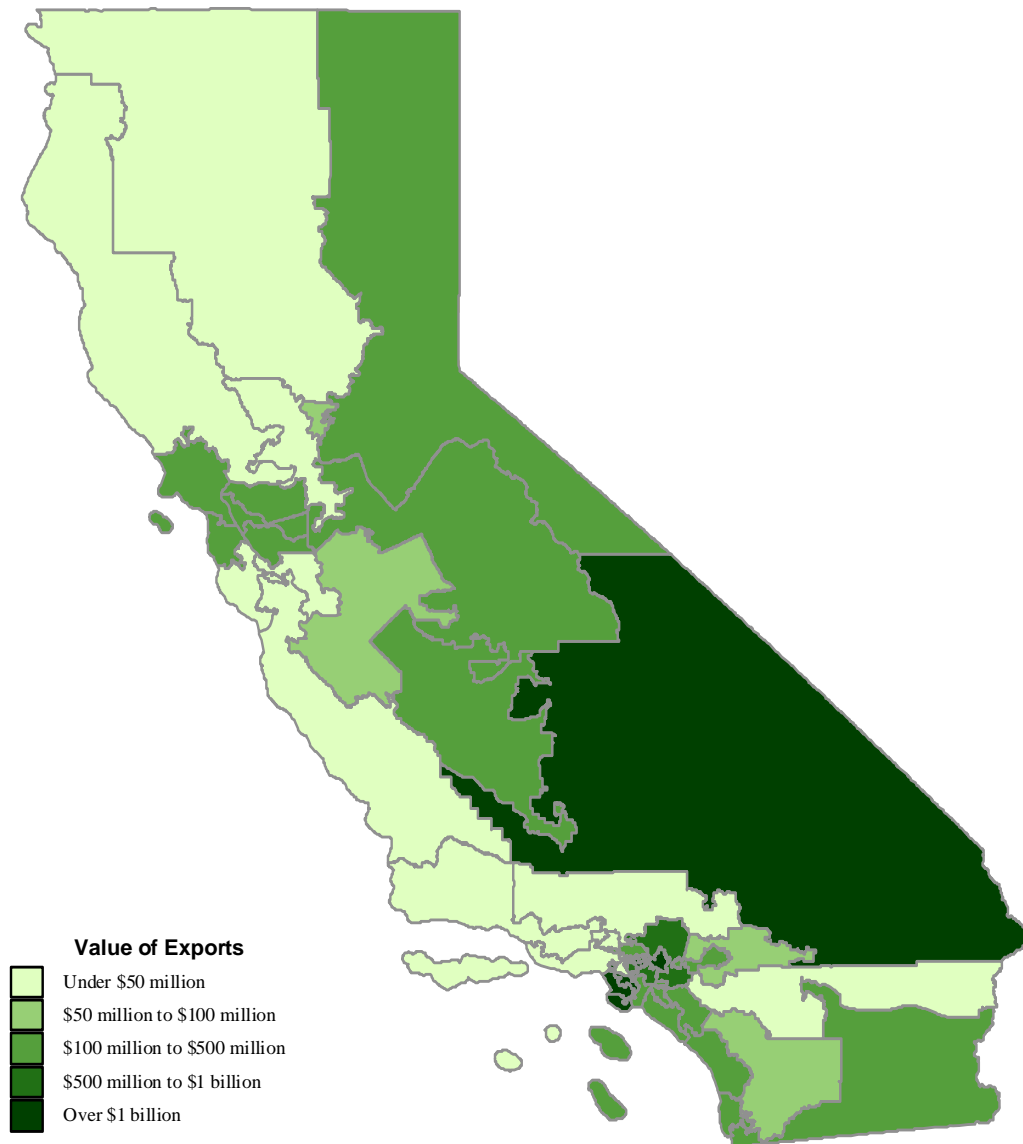
**Figure 14 – Value of All Trade Moving Through the Los Angeles-Long Beach Ports,
by State Assembly District (FY2008)**



Source: BST Associates

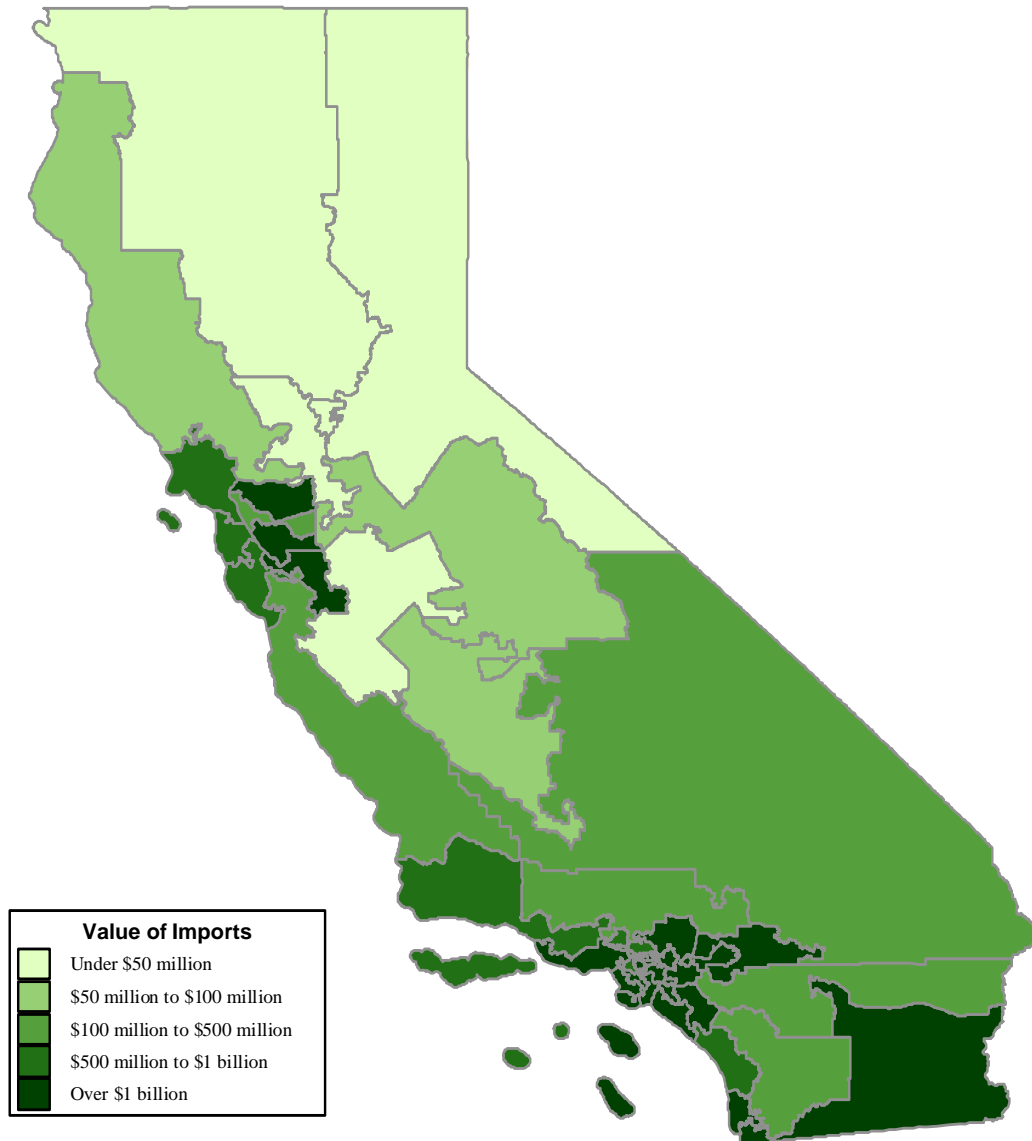
State Senate

**Figure 15 – Value of Exports Moving Through the Los Angeles-Long Beach Ports,
by State Senate District (FY2008)**



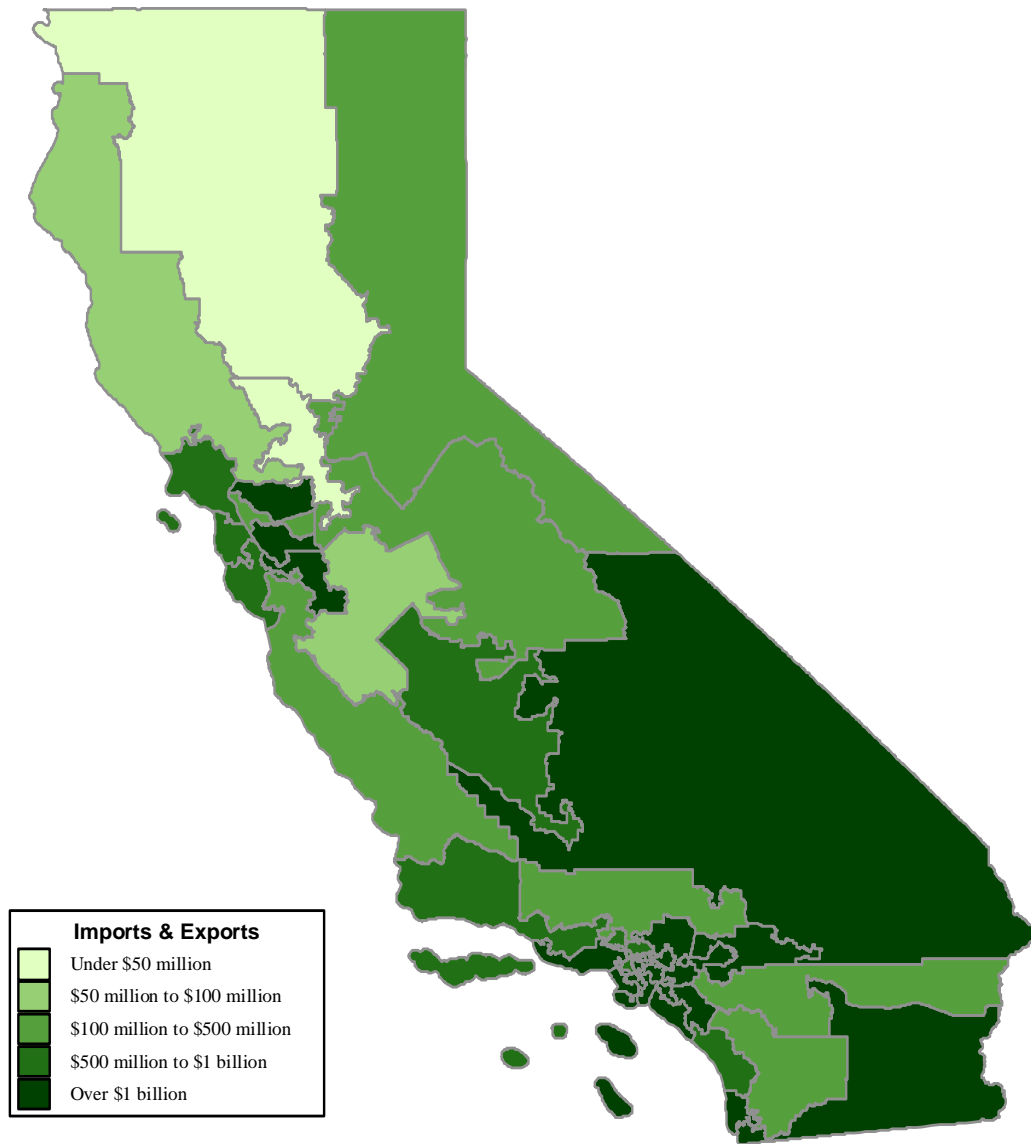
Source: BST Associates

**Figure 16 – Value of Imports Moving Through the Los Angeles-Long Beach Ports,
by State Senate District (FY2008)**



Source: BST Associates

**Figure 17 – Value of All Trade Moving Through the Los Angeles-Long Beach Ports,
by State Senate District (FY2008)**



Source: BST Associates

Table 18 – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Alabama	1	\$100,000	\$59,200	\$159,200
Alabama	2	\$172,400	\$301,500	\$473,800
Alabama	3	\$9,000	\$470,200	\$479,200
Alabama	4	\$600	\$154,600	\$155,200
Alabama	5	\$30,800	\$384,800	\$415,500
Alabama	6	\$100	\$136,100	\$136,200
Alabama	7	\$2,300	\$78,300	\$80,600
Alaska	At Large	\$700	\$700	\$1,400
Arizona	1	\$-	\$42,400	\$42,400
Arizona	2	\$200	\$56,000	\$56,200
Arizona	3	\$1,100	\$200,400	\$201,500
Arizona	4	\$114,900	\$476,800	\$591,600
Arizona	5	\$70,600	\$267,200	\$337,800
Arizona	6	\$6,000	\$138,200	\$144,200
Arizona	7	\$10,700	\$327,100	\$337,700
Arizona	8	\$-	\$70,200	\$70,200
Arkansas	1	\$10,200	\$334,500	\$344,700
Arkansas	2	\$400	\$219,700	\$220,100
Arkansas	3	\$50,600	\$1,776,200	\$1,826,800
Arkansas	4	\$3,200	\$70,800	\$74,000
California	1	\$7,000	\$23,800	\$30,800
California	2	\$5,400	\$27,600	\$33,000
California	3	\$5,500	\$32,100	\$37,600
California	4	\$319,900	\$14,800	\$334,700
California	5	\$78,300	\$18,300	\$96,600
California	6	\$33,900	\$148,200	\$182,100
California	7	\$36,300	\$43,900	\$80,200
California	8	\$108,100	\$662,400	\$770,500
California	9	\$153,500	\$98,400	\$251,800
California	10	\$121,100	\$1,076,700	\$1,197,800
California	11	\$28,600	\$208,400	\$237,100
California	12	\$250,500	\$526,100	\$776,600
California	13	\$56,400	\$786,700	\$843,100
California	14	\$6,800	\$846,400	\$853,200
California	15	\$81,300	\$892,600	\$973,900
California	16	\$13,600	\$1,775,000	\$1,788,600
California	17	\$64,600	\$56,400	\$120,900
California	18	\$4,800	\$11,600	\$16,400

Table 19 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
California	19	\$126,000	\$61,400	\$187,400
California	20	\$416,000	\$81,300	\$497,300
California	21	\$67,100	\$64,600	\$131,700
California	22	\$1,284,400	\$303,500	\$1,587,900
California	23	\$28,800	\$330,700	\$359,500
California	24	\$38,200	\$616,800	\$655,100
California	25	\$22,500	\$194,800	\$217,300
California	26	\$387,900	\$2,465,900	\$2,853,700
California	27	\$42,600	\$498,200	\$540,900
California	28	\$52,500	\$403,000	\$455,400
California	29	\$266,300	\$773,600	\$1,039,900
California	30	\$36,200	\$1,090,800	\$1,127,100
California	31	\$16,200	\$840,300	\$856,500
California	32	\$674,400	\$2,203,500	\$2,877,900
California	33	\$33,900	\$511,900	\$545,800
California	34	\$390,300	\$4,545,300	\$4,935,600
California	35	\$1,284,900	\$1,208,200	\$2,493,100
California	36	\$1,743,200	\$2,751,700	\$4,494,900
California	37	\$4,639,300	\$3,995,300	\$8,634,700
California	38	\$747,400	\$5,195,600	\$5,942,900
California	39	\$640,000	\$1,978,400	\$2,618,400
California	40	\$208,800	\$1,560,800	\$1,769,600
California	41	\$5,800	\$82,800	\$88,600
California	42	\$318,900	\$1,828,600	\$2,147,500
California	43	\$204,300	\$2,756,600	\$2,960,900
California	44	\$12,400	\$536,700	\$549,000
California	45	\$12,700	\$107,100	\$119,800
California	46	\$220,000	\$934,100	\$1,154,100
California	47	\$128,200	\$1,116,300	\$1,244,500
California	48	\$188,100	\$3,010,000	\$3,198,100
California	49	\$86,500	\$338,200	\$424,700
California	50	\$126,700	\$661,700	\$788,400
California	51	\$121,400	\$3,937,400	\$4,058,800
California	52	\$50,200	\$410,900	\$461,200
California	53	\$122,600	\$1,001,400	\$1,124,000
Colorado	1	\$14,600	\$343,100	\$357,700
Colorado	2	\$7,300	\$363,800	\$371,100
Colorado	3	\$2,400	\$29,900	\$32,200
Colorado	4	\$255,500	\$55,400	\$310,900
Colorado	5	\$300	\$21,700	\$22,000
Colorado	6	\$2,200	\$182,100	\$184,300
Colorado	7	\$27,700	\$104,000	\$131,700

Table 20 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Connecticut	1	\$4,300	\$38,500	\$42,700
Connecticut	2	\$400	\$32,600	\$33,100
Connecticut	3	\$2,400	\$69,600	\$72,000
Connecticut	4	\$66,700	\$488,600	\$555,200
Connecticut	5	\$60,500	\$107,600	\$168,100
Delaware	At Large	\$18,200	\$35,800	\$53,900
Dist. of Columbia	98	\$4,100	\$47,600	\$51,700
Florida	1	\$100	\$201,100	\$201,200
Florida	2	\$100	\$51,500	\$51,600
Florida	3	\$200	\$73,400	\$73,600
Florida	4	\$3,600	\$136,200	\$139,800
Florida	5	\$-	\$7,100	\$7,100
Florida	6	\$4,500	\$65,000	\$69,600
Florida	7	\$2,100	\$113,100	\$115,100
Florida	8	\$1,600	\$68,300	\$69,900
Florida	9	\$400	\$65,100	\$65,500
Florida	10	\$5,200	\$158,700	\$163,900
Florida	11	\$5,500	\$107,500	\$113,100
Florida	12	\$900	\$42,900	\$43,800
Florida	13	\$-	\$54,400	\$54,400
Florida	14	\$200	\$105,300	\$105,500
Florida	15	\$300	\$9,800	\$10,100
Florida	16	\$200	\$7,000	\$7,200
Florida	17	\$8,300	\$266,200	\$274,500
Florida	18	\$49,500	\$258,800	\$308,300
Florida	19	\$300	\$589,100	\$589,300
Florida	20	\$6,700	\$100,600	\$107,300
Florida	21	\$57,900	\$275,300	\$333,300
Florida	22	\$6,300	\$428,400	\$434,700
Florida	23	\$2,800	\$142,400	\$145,200
Florida	24	\$200	\$19,200	\$19,400
Florida	25	\$4,600	\$42,400	\$47,000
Georgia	1	\$5,500	\$11,600	\$17,100
Georgia	2	\$4,600	\$120,600	\$125,200
Georgia	3	\$11,100	\$729,200	\$740,300
Georgia	4	\$3,200	\$248,700	\$251,900
Georgia	5	\$194,100	\$662,800	\$856,900
Georgia	6	\$78,200	\$373,500	\$451,600
Georgia	7	\$5,000	\$512,200	\$517,200

Table 21 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Georgia	8	\$100	\$13,100	\$13,200
Georgia	9	\$46,100	\$270,600	\$316,700
Georgia	10	\$2,100	\$53,400	\$55,500
Georgia	11	\$4,000	\$484,900	\$489,000
Georgia	12	\$8,300	\$29,200	\$37,500
Georgia	13	\$22,300	\$130,700	\$153,000
Hawaii	1	\$2,900	\$23,400	\$26,300
Hawaii	2	\$100	\$19,800	\$19,900
Idaho	1	\$2,000	\$11,700	\$13,700
Idaho	2	\$20,100	\$24,400	\$44,400
Illinois	1	\$3,400	\$51,900	\$55,300
Illinois	2	\$700	\$108,600	\$109,300
Illinois	3	\$38,800	\$281,500	\$320,300
Illinois	4	\$3,000	\$88,400	\$91,500
Illinois	5	\$81,600	\$183,800	\$265,400
Illinois	6	\$2,567,700	\$2,098,800	\$4,666,500
Illinois	7	\$126,200	\$627,300	\$753,400
Illinois	8	\$84,200	\$1,915,700	\$1,999,900
Illinois	9	\$75,200	\$537,100	\$612,300
Illinois	10	\$331,700	\$1,598,700	\$1,930,400
Illinois	11	\$82,300	\$185,800	\$268,100
Illinois	12	\$19,200	\$101,300	\$120,500
Illinois	13	\$238,100	\$627,000	\$865,100
Illinois	14	\$101,500	\$464,500	\$566,000
Illinois	15	\$123,100	\$85,900	\$209,100
Illinois	16	\$139,100	\$322,500	\$461,600
Illinois	17	\$98,500	\$96,300	\$194,800
Illinois	18	\$412,100	\$63,600	\$475,800
Illinois	19	\$17,700	\$156,600	\$174,300
Indiana	1	\$1,400	\$47,200	\$48,600
Indiana	2	\$50,100	\$287,400	\$337,600
Indiana	3	\$21,500	\$250,400	\$271,900
Indiana	4	\$112,300	\$744,600	\$856,900
Indiana	5	\$36,500	\$386,500	\$423,000
Indiana	6	\$35,100	\$189,200	\$224,300
Indiana	7	\$553,500	\$456,900	\$1,010,400
Indiana	8	\$18,000	\$69,000	\$86,900
Indiana	9	\$107,800	\$258,900	\$366,700

Table 22 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Iowa	1	\$900	\$173,800	\$174,700
Iowa	2	\$35,400	\$398,500	\$434,000
Iowa	3	\$27,700	\$86,200	\$113,900
Iowa	4	\$2,000	\$175,500	\$177,500
Iowa	5	\$84,600	\$36,800	\$121,400
Kansas	1	\$42,200	\$90,100	\$132,300
Kansas	2	\$66,600	\$423,200	\$489,800
Kansas	3	\$173,400	\$482,800	\$656,200
Kansas	4	\$156,100	\$433,700	\$589,800
Kentucky	1	\$12,000	\$148,500	\$160,500
Kentucky	2	\$22,200	\$277,700	\$299,900
Kentucky	3	\$54,500	\$340,600	\$395,100
Kentucky	4	\$275,500	\$305,500	\$580,900
Kentucky	5	\$1,600	\$22,100	\$23,700
Kentucky	6	\$53,700	\$984,200	\$1,037,800
Louisiana	1	\$102,000	\$113,300	\$215,400
Louisiana	2	\$21,200	\$92,100	\$113,300
Louisiana	3	\$8,700	\$41,300	\$50,000
Louisiana	4	\$5,500	\$48,400	\$53,900
Louisiana	5	\$6,100	\$47,800	\$53,900
Louisiana	6	\$149,900	\$63,300	\$213,200
Louisiana	7	\$1,600	\$39,700	\$41,300
Maine	1	\$1,800	\$9,200	\$10,900
Maine	2	\$300	\$30,200	\$30,500
Maryland	1	\$16,700	\$22,100	\$38,800
Maryland	2	\$11,000	\$127,600	\$138,600
Maryland	3	\$12,000	\$139,300	\$151,300
Maryland	4	\$5,600	\$9,600	\$15,200
Maryland	5	\$100	\$53,600	\$53,700
Maryland	6	\$100	\$35,500	\$35,600
Maryland	7	\$26,300	\$51,500	\$77,700
Maryland	8	\$1,200	\$32,000	\$33,300
Massachusetts	1	\$101,400	\$71,900	\$173,300
Massachusetts	2	\$700	\$78,700	\$79,400
Massachusetts	3	\$3,000	\$74,500	\$77,500
Massachusetts	4	\$5,200	\$127,500	\$132,600
Massachusetts	5	\$2,100	\$71,200	\$73,400

Table 23 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Massachusetts	6	\$4,900	\$222,100	\$227,000
Massachusetts	7	\$30,800	\$186,900	\$217,700
Massachusetts	8	\$26,200	\$147,000	\$173,300
Massachusetts	9	\$12,000	\$155,300	\$167,300
Massachusetts	10	\$10,500	\$57,900	\$68,400
Michigan	1	\$2,300	\$13,800	\$16,100
Michigan	2	\$26,900	\$296,700	\$323,600
Michigan	3	\$71,400	\$220,800	\$292,200
Michigan	4	\$900,400	\$28,500	\$928,800
Michigan	5	\$7,200	\$103,800	\$111,000
Michigan	6	\$14,200	\$170,100	\$184,300
Michigan	7	\$11,200	\$219,900	\$231,000
Michigan	8	\$900	\$51,400	\$52,300
Michigan	9	\$109,500	\$328,000	\$437,500
Michigan	10	\$2,800	\$92,200	\$94,900
Michigan	11	\$66,700	\$512,200	\$578,900
Michigan	12	\$20,900	\$268,100	\$289,000
Michigan	13	\$36,600	\$1,238,700	\$1,275,300
Michigan	14	\$61,000	\$65,900	\$127,000
Michigan	15	\$243,100	\$231,000	\$474,100
Minnesota	1	\$8,800	\$69,000	\$77,800
Minnesota	2	\$26,600	\$159,100	\$185,700
Minnesota	3	\$166,700	\$217,600	\$384,300
Minnesota	4	\$626,200	\$85,300	\$711,500
Minnesota	5	\$58,300	\$584,600	\$642,900
Minnesota	6	\$23,900	\$39,900	\$63,900
Minnesota	7	\$21,500	\$14,100	\$35,500
Minnesota	8	\$-	\$19,500	\$19,600
Mississippi	1	\$300	\$724,800	\$725,100
Mississippi	2	\$39,500	\$47,000	\$86,400
Mississippi	3	\$1,900	\$75,800	\$77,700
Mississippi	4	\$8,200	\$73,200	\$81,400
Missouri	1	\$405,000	\$585,900	\$990,900
Missouri	2	\$28,900	\$151,700	\$180,500
Missouri	3	\$10,400	\$216,300	\$226,700
Missouri	4	\$700	\$100,800	\$101,500
Missouri	5	\$37,900	\$317,200	\$355,100
Missouri	6	\$167,900	\$339,500	\$507,400
Missouri	7	\$17,000	\$516,900	\$533,900

Table 24 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Missouri	8	\$4,900	\$46,900	\$51,800
Missouri	9	\$1,900	\$276,100	\$278,000
Montana	At Large	\$800	\$26,000	\$26,700
Nebraska	1	\$23,800	\$51,900	\$75,600
Nebraska	2	\$166,500	\$220,600	\$387,100
Nebraska	3	\$35,700	\$24,300	\$60,100
Nevada	1	\$27,800	\$292,600	\$320,400
Nevada	2	\$2,200	\$129,900	\$132,200
Nevada	3	\$3,800	\$196,100	\$199,900
New Hampshire	1	\$4,200	\$44,600	\$48,800
New Hampshire	2	\$700	\$51,300	\$52,100
New Jersey	1	\$600	\$29,600	\$30,300
New Jersey	2	\$600	\$5,200	\$5,900
New Jersey	3	\$1,300	\$136,500	\$137,800
New Jersey	4	\$2,800	\$46,200	\$49,000
New Jersey	5	\$28,600	\$229,900	\$258,500
New Jersey	6	\$23,700	\$139,800	\$163,500
New Jersey	7	\$67,400	\$392,200	\$459,600
New Jersey	8	\$9,400	\$256,900	\$266,300
New Jersey	9	\$51,600	\$1,110,700	\$1,162,400
New Jersey	10	\$6,300	\$38,000	\$44,300
New Jersey	11	\$64,800	\$323,200	\$388,000
New Jersey	12	\$22,700	\$137,200	\$159,900
New Jersey	13	\$59,300	\$76,000	\$135,300
New Mexico	1	\$200	\$93,500	\$93,700
New Mexico	2	\$1,800	\$23,100	\$25,000
New Mexico	3	\$300	\$25,700	\$26,000
New York	1	\$600	\$38,100	\$38,700
New York	2	\$3,100	\$269,700	\$272,800
New York	3	\$7,800	\$66,400	\$74,200
New York	4	\$118,500	\$100,600	\$219,100
New York	5	\$13,600	\$762,200	\$775,800
New York	6	\$110,700	\$58,300	\$169,000
New York	7	\$700	\$39,600	\$40,300
New York	8	\$169,300	\$1,711,300	\$1,880,500
New York	9	\$900	\$23,400	\$24,400

Table 25 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
New York	10	\$-	\$11,600	\$11,600
New York	11	\$100	\$25,500	\$25,700
New York	12	\$900	\$88,000	\$88,900
New York	13	\$16,900	\$13,400	\$30,200
New York	14	\$29,700	\$2,417,200	\$2,447,000
New York	15	\$100	\$104,300	\$104,500
New York	16	\$-	\$6,600	\$6,600
New York	17	\$1,600	\$26,900	\$28,600
New York	18	\$15,100	\$203,700	\$218,700
New York	19	\$1,000	\$28,400	\$29,300
New York	20	\$1,900	\$14,200	\$16,100
New York	21	\$7,100	\$15,800	\$22,900
New York	22	\$10,800	\$8,200	\$19,000
New York	23	\$500	\$32,700	\$33,200
New York	24	\$2,800	\$13,800	\$16,600
New York	25	\$2,400	\$30,800	\$33,200
New York	26	\$200	\$33,700	\$33,900
New York	27	\$11,700	\$43,800	\$55,500
New York	28	\$4,200	\$15,500	\$19,700
New York	29	\$2,600	\$62,100	\$64,700
North Carolina	1	\$2,100	\$15,800	\$17,900
North Carolina	2	\$2,100	\$58,900	\$61,000
North Carolina	3	\$42,200	\$6,400	\$48,600
North Carolina	4	\$6,400	\$68,000	\$74,300
North Carolina	5	\$100	\$872,500	\$872,600
North Carolina	6	\$28,000	\$142,300	\$170,300
North Carolina	7	\$2,400	\$35,300	\$37,700
North Carolina	8	\$7,100	\$76,800	\$83,900
North Carolina	9	\$82,300	\$398,800	\$481,100
North Carolina	10	\$10,500	\$270,700	\$281,200
North Carolina	11	\$100	\$43,000	\$43,000
North Carolina	12	\$28,600	\$870,100	\$898,700
North Carolina	13	\$8,000	\$72,700	\$80,700
North Dakota	At Large	\$1,300	\$48,200	\$49,500
Ohio	1	\$10,900	\$251,600	\$262,500
Ohio	2	\$226,200	\$152,000	\$378,200
Ohio	3	\$85,100	\$389,800	\$474,900
Ohio	4	\$125,400	\$157,600	\$283,000
Ohio	5	\$18,100	\$275,300	\$293,300
Ohio	6	\$27,200	\$35,000	\$62,200

Table 26 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Ohio	7	\$26,000	\$160,000	\$186,000
Ohio	8	\$12,900	\$185,000	\$198,000
Ohio	9	\$12,500	\$92,900	\$105,400
Ohio	10	\$324,400	\$293,100	\$617,500
Ohio	11	\$146,100	\$187,900	\$334,000
Ohio	12	\$42,100	\$175,700	\$217,800
Ohio	13	\$180,600	\$338,400	\$519,000
Ohio	14	\$121,800	\$472,500	\$594,300
Ohio	15	\$50,900	\$559,300	\$610,100
Ohio	16	\$34,200	\$321,700	\$355,900
Ohio	17	\$111,000	\$249,700	\$360,700
Ohio	18	\$1,000	\$113,500	\$114,500
Oklahoma	1	\$54,000	\$162,000	\$216,000
Oklahoma	2	\$18,100	\$121,900	\$140,000
Oklahoma	3	\$9,500	\$103,800	\$113,300
Oklahoma	4	\$16,800	\$69,800	\$86,700
Oklahoma	5	\$24,200	\$305,600	\$329,900
Oregon	1	\$40,200	\$227,900	\$268,200
Oregon	2	\$90,200	\$8,600	\$98,800
Oregon	3	\$12,500	\$197,200	\$209,700
Oregon	4	\$7,800	\$9,800	\$17,600
Oregon	5	\$5,900	\$21,500	\$27,400
Pennsylvania	1	\$231,100	\$70,900	\$302,000
Pennsylvania	2	\$41,700	\$72,400	\$114,100
Pennsylvania	3	\$5,800	\$119,300	\$125,000
Pennsylvania	4	\$16,400	\$276,100	\$292,500
Pennsylvania	5	\$500	\$18,600	\$19,000
Pennsylvania	6	\$9,200	\$101,500	\$110,700
Pennsylvania	7	\$10,000	\$162,600	\$172,600
Pennsylvania	8	\$4,200	\$197,900	\$202,000
Pennsylvania	9	\$700	\$22,500	\$23,200
Pennsylvania	10	\$300	\$144,000	\$144,200
Pennsylvania	11	\$12,200	\$29,300	\$41,500
Pennsylvania	12	\$500	\$89,200	\$89,600
Pennsylvania	13	\$46,400	\$82,600	\$129,000
Pennsylvania	14	\$174,100	\$200,700	\$374,800
Pennsylvania	15	\$49,800	\$93,600	\$143,400
Pennsylvania	16	\$13,200	\$106,700	\$119,900
Pennsylvania	17	\$11,800	\$105,900	\$117,700
Pennsylvania	18	\$13,200	\$94,000	\$107,300

Table 27 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Pennsylvania	19	\$32,000	\$134,700	\$166,700
Rhode Island	1	\$900	\$138,900	\$139,900
Rhode Island	2	\$3,900	\$146,900	\$150,800
South Carolina	1	\$37,000	\$146,300	\$183,300
South Carolina	2	\$400	\$62,900	\$63,300
South Carolina	3	\$700	\$113,600	\$114,400
South Carolina	4	\$24,800	\$386,500	\$411,300
South Carolina	5	\$900	\$356,600	\$357,500
South Carolina	6	\$91,500	\$75,100	\$166,700
South Dakota	At Large	\$19,800	\$29,700	\$49,500
Tennessee	1	\$116,900	\$56,400	\$173,300
Tennessee	2	\$51,500	\$178,700	\$230,200
Tennessee	3	\$1,000	\$111,700	\$112,700
Tennessee	4	\$6,100	\$90,000	\$96,100
Tennessee	5	\$71,600	\$535,500	\$607,000
Tennessee	6	\$178,100	\$777,500	\$955,500
Tennessee	7	\$276,900	\$246,300	\$523,300
Tennessee	8	\$10,000	\$80,500	\$90,500
Tennessee	9	\$471,200	\$1,122,900	\$1,594,000
Texas	1	\$5,100	\$124,100	\$129,200
Texas	2	\$317,600	\$103,600	\$421,300
Texas	3	\$79,900	\$688,300	\$768,100
Texas	4	\$5,100	\$242,700	\$247,700
Texas	5	\$5,700	\$176,300	\$182,000
Texas	6	\$1,200	\$313,300	\$314,500
Texas	7	\$601,700	\$682,000	\$1,283,700
Texas	8	\$142,900	\$138,600	\$281,500
Texas	9	\$159,700	\$561,900	\$721,600
Texas	10	\$7,100	\$1,838,600	\$1,845,700
Texas	11	\$6,500	\$155,600	\$162,100
Texas	12	\$70,600	\$376,300	\$446,900
Texas	13	\$19,100	\$55,600	\$74,700
Texas	14	\$29,200	\$67,000	\$96,300
Texas	15	\$6,800	\$119,900	\$126,700
Texas	16	\$151,100	\$1,666,300	\$1,817,400
Texas	17	\$200	\$160,100	\$160,300
Texas	18	\$2,638,900	\$1,557,100	\$4,196,000
Texas	19	\$80,200	\$58,500	\$138,700

Table 28 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
Texas	20	\$17,800	\$309,800	\$327,700
Texas	21	\$5,300	\$148,700	\$154,100
Texas	22	\$237,900	\$525,400	\$763,300
Texas	23	\$300	\$77,800	\$78,000
Texas	24	\$360,600	\$1,421,400	\$1,782,000
Texas	25	\$1,500	\$326,400	\$327,900
Texas	26	\$19,200	\$476,000	\$495,200
Texas	27	\$9,000	\$184,700	\$193,800
Texas	28	\$4,200	\$1,027,800	\$1,032,000
Texas	29	\$300,600	\$521,200	\$821,800
Texas	30	\$333,400	\$411,500	\$745,000
Texas	31	\$1,200	\$93,000	\$94,200
Texas	32	\$509,100	\$637,800	\$1,146,900
Utah	1	\$169,400	\$375,100	\$544,400
Utah	2	\$102,000	\$95,600	\$197,600
Utah	3	\$52,000	\$235,000	\$287,000
Vermont	At Large	\$5,700	\$14,300	\$20,100
Virginia	1	\$100	\$87,800	\$87,800
Virginia	2	\$5,900	\$37,400	\$43,300
Virginia	3	\$8,800	\$80,400	\$89,100
Virginia	4	\$13,300	\$79,000	\$92,300
Virginia	5	\$4,300	\$30,900	\$35,200
Virginia	6	\$700	\$51,100	\$51,800
Virginia	7	\$80,500	\$120,800	\$201,300
Virginia	8	\$3,200	\$10,600	\$13,800
Virginia	9	\$-	\$23,500	\$23,500
Virginia	10	\$34,600	\$40,500	\$75,100
Virginia	11	\$900	\$6,200	\$7,100
Washington	1	\$51,900	\$180,500	\$232,400
Washington	2	\$5,600	\$43,800	\$49,400
Washington	3	\$3,400	\$31,700	\$35,100
Washington	4	\$51,300	\$9,800	\$61,200
Washington	5	\$100	\$8,500	\$8,700
Washington	6	\$2,000	\$22,900	\$24,900
Washington	7	\$104,500	\$258,800	\$363,200
Washington	8	\$126,800	\$102,300	\$229,100
Washington	9	\$136,300	\$128,000	\$264,200

Table 29 (continued) – Summary of Trade Impacts, FY2008
Goods Shipped Through the Ports of Los Angeles and Long Beach

State Name	District Number	Export Value (\$1,000's)	Import Value (\$1,000's)	Total Value (\$1,000's)
West Virginia	1	\$4,400	\$13,300	\$17,700
West Virginia	2	\$1,100	\$62,300	\$63,400
West Virginia	3	\$4,800	\$7,000	\$11,800
Wisconsin	1	\$236,800	\$406,300	\$643,100
Wisconsin	2	\$41,800	\$477,300	\$519,000
Wisconsin	3	\$55,600	\$99,100	\$154,700
Wisconsin	4	\$107,000	\$138,400	\$245,400
Wisconsin	5	\$30,000	\$721,800	\$751,800
Wisconsin	6	\$93,900	\$330,800	\$424,600
Wisconsin	7	\$100,100	\$147,800	\$247,900
Wisconsin	8	\$92,900	\$106,100	\$199,100
Wyoming	At Large	\$600	\$18,300	\$18,900

Source: BST Associates using data from numerous sources

**Table 30 – Summary of Trade Impacts, FY2008, by State Assembly District
Goods Shipped Through the Ports of Los Angeles and Long Beach**

Senate District	Export Value (\$ millions)	Import Value (\$ millions)	Total Value (\$ millions)
1	\$3.7	\$15.2	\$18.9
2	\$6.8	\$14.2	\$20.9
3	\$2.1	\$18.4	\$20.5
4	\$311.4	\$8.7	\$320.1
5	\$8.0	\$26.3	\$34.3
6	\$32.9	\$115.7	\$148.7
7	\$3.3	\$40.0	\$43.3
8	\$8.6	\$27.1	\$35.6
9	\$78.1	\$9.7	\$87.8
10	\$4.7	\$9.9	\$14.6
11	\$21.2	\$27.9	\$49.1
12	\$1.4	\$21.9	\$23.3
13	\$107.2	\$645.7	\$752.9
14	\$37.2	\$61.6	\$98.8
15	\$108.9	\$1,127.8	\$1,236.7
16	\$149.0	\$67.8	\$216.8
17	\$4.8	\$11.9	\$16.8
18	\$40.4	\$387.9	\$428.3
19	\$249.4	\$543.0	\$792.4
20	\$28.2	\$1,150.2	\$1,178.4
21	\$7.1	\$581.5	\$588.6
22	\$84.7	\$589.1	\$673.8
23	\$0.7	\$1,141.9	\$1,142.6
24	\$1.0	\$505.7	\$506.7
25	\$3.8	\$12.4	\$16.2
26	\$3.9	\$12.0	\$15.9
27	\$14.7	\$58.0	\$72.6
28	\$56.6	\$34.4	\$91.0
29	\$132.6	\$33.5	\$166.1
30	\$493.3	\$42.6	\$535.8
31	\$17.1	\$77.0	\$94.1
32	\$167.8	\$95.3	\$263.1
33	\$47.0	\$63.3	\$110.3
34	\$1,069.0	\$178.1	\$1,247.2
35	\$6.3	\$223.6	\$229.9
36	\$3.1	\$28.7	\$31.8
37	\$17.8	\$672.0	\$689.8
38	\$9.1	\$279.4	\$288.5
39	\$8.4	\$289.8	\$298.1
40	\$38.5	\$427.0	\$465.5

Source: BST Associates using data from numerous sources

**Table 19 (continued) – Summary of Trade Impacts, FY2008, by State Assembly District
Goods Shipped Through the Ports of Los Angeles and Long Beach**

Senate District	Export Value (\$ millions)	Import Value (\$ millions)	Total Value (\$ millions)
41	\$28.7	\$480.5	\$509.2
42	\$60.5	\$545.2	\$605.7
43	\$33.3	\$160.3	\$193.7
44	\$162.2	\$585.3	\$747.6
45	\$28.5	\$310.8	\$339.3
46	\$278.9	\$3,948.9	\$4,227.8
47	\$10.5	\$389.2	\$399.7
48	\$37.3	\$416.3	\$453.6
49	\$726.6	\$1,781.8	\$2,508.3
50	\$539.8	\$1,249.6	\$1,789.5
51	\$1,430.5	\$964.0	\$2,394.5
52	\$1,734.5	\$1,415.1	\$3,149.6
53	\$760.0	\$2,576.9	\$3,336.9
54	\$502.6	\$308.9	\$811.5
55	\$3,437.0	\$3,341.0	\$6,778.0
56	\$200.5	\$2,537.2	\$2,737.7
57	\$252.3	\$1,602.7	\$1,855.1
58	\$562.5	\$2,703.6	\$3,266.1
59	\$75.4	\$273.9	\$349.3
60	\$335.4	\$1,946.7	\$2,282.2
61	\$117.5	\$3,883.2	\$4,000.6
62	\$74.5	\$365.8	\$440.3
63	\$96.0	\$700.0	\$796.1
64	\$6.2	\$205.5	\$211.6
65	\$1.8	\$45.1	\$47.0
66	\$5.9	\$251.1	\$257.0
67	\$125.4	\$1,037.4	\$1,162.8
68	\$109.2	\$485.4	\$594.5
69	\$46.1	\$549.7	\$595.8
70	\$102.2	\$1,934.3	\$2,036.6
71	\$35.3	\$1,158.2	\$1,193.6
72	\$238.8	\$1,407.6	\$1,646.4
73	\$141.6	\$189.9	\$331.5
74	\$4.3	\$408.6	\$413.0
75	\$153.4	\$959.2	\$1,112.6
76	\$117.3	\$704.2	\$821.6
77	\$24.8	\$47.4	\$72.2
78	\$11.1	\$2,514.2	\$2,525.3
79	\$22.1	\$1,005.7	\$1,027.8
80	\$100.0	\$579.7	\$679.7

Source: BST Associates using data from numerous sources

**Table 31 – Summary of Trade Impacts, FY2008, by State Senate District
Goods Shipped Through the Ports of Los Angeles and Long Beach**

Senate District	Export Value (\$ millions)	Import Value (\$ millions)	Total Value (\$ millions)
1	\$322.7	\$27.5	\$350.2
2	\$12.2	\$57.5	\$69.7
3	\$139.6	\$761.7	\$901.3
4	\$4.3	\$31.0	\$35.3
5	\$11.3	\$36.4	\$47.7
6	\$78.3	\$36.7	\$115.0
7	\$160.4	\$1,130.1	\$1,290.5
8	\$251.2	\$565.9	\$817.1
9	\$163.6	\$171.0	\$334.6
10	\$143.4	\$2,169.9	\$2,313.2
11	\$9.0	\$656.6	\$665.6
12	\$53.1	\$10.6	\$63.7
13	\$8.9	\$1,529.3	\$1,538.2
14	\$153.5	\$83.9	\$237.4
15	\$35.0	\$126.3	\$161.3
16	\$436.4	\$90.7	\$527.1
17	\$32.8	\$270.8	\$303.6
18	\$1,297.7	\$271.7	\$1,569.4
19	\$35.8	\$756.4	\$792.2
20	\$46.9	\$619.9	\$666.7
21	\$181.8	\$505.7	\$687.6
22	\$875.3	\$4,638.0	\$5,513.3
23	\$42.4	\$1,278.4	\$1,320.8
24	\$1,006.2	\$4,432.1	\$5,438.3
25	\$3,489.0	\$2,913.4	\$6,402.4
26	\$45.6	\$535.9	\$581.5
27	\$413.3	\$1,368.2	\$1,781.5
28	\$4,091.6	\$5,297.8	\$9,389.4
29	\$591.9	\$3,588.9	\$4,180.8
30	\$542.1	\$4,058.3	\$4,600.4
31	\$62.0	\$1,007.0	\$1,069.0
32	\$222.6	\$3,460.7	\$3,683.3
33	\$225.0	\$2,257.7	\$2,482.7
34	\$199.7	\$1,490.1	\$1,689.9
35	\$205.5	\$2,747.0	\$2,952.5
36	\$52.6	\$343.7	\$396.3
37	\$6.1	\$234.8	\$240.9
38	\$202.4	\$575.1	\$777.5
39	\$146.4	\$3,889.2	\$4,035.6
40	\$122.3	\$1,620.8	\$1,743.1

Source: BST Associates using data from numerous sources

Glossary

Alameda Corridor - a 20-mile railroad express line that connects the Ports of Los Angeles and Long Beach to the transcontinental rail network east of downtown Los Angeles. This corridor eliminated the intersection of the railroad with roads at 200 locations, primarily by lowering the railroad grade below the road grade. The project is overseen by the Alameda Corridor Transportation Authority (ACTA), a joint-powers agency governed by the ports and cities of Los Angeles and Long Beach, as well as the Los Angeles County Metropolitan Transportation Agency..

Asian Financial Crisis - the financial crisis that erupted in Asia in mid-1997, which led to sharp declines in the currencies, stock markets, and other asset prices of a number of Asian countries.

BEA - U.S. Bureau of Economic Analysis

CFS – see “Commodity Flow Survey”

CIF - Cost, Insurance and Freight - refers to pricing terms in international trade. When sold “CIF”, the cost of the delivery of goods to the buyer’s destination is paid by the seller. However, the buyer assumes the cargo insurance, import customs clearance, payment of customs duties and taxes, and other costs and risks.

Census - a complete counting taken by the U.S. Department of Commerce, Bureau of the Census, every 10 years which includes the number of people and housing units and various other highly detailed population, earnings, age, race and ethnic background, and housing characteristics. It is also referred to as the Decennial Census of Population and Housing.

Commodity Flow Survey - a survey conducted approximately every five years as part of the Economic Census by the U.S. Census Bureau and the Bureau of Transportation Statistics. The Commodity Flow Survey obtains origin and destination data on shipments by domestic establishments in manufacturing, wholesale, mining, and other selected industries.

Congressional District - the geographical region represented by a member of the U.S. House of Representatives.

Cost of Goods Sold - cost of goods sold is the expense a company incurred in order to manufacture, create, or sell a product. It includes the purchase price of the raw material as well as the expenses of turning it into a product.

Cross-reference - a type of database file used to convert data from one unit of measure into another. For instance, in this study a cross-reference file was used to convert commodity types into industry sectors.

Customs Duty - federal tax charged on goods imported into the United States

Direct Impact - employment, payroll, and revenue generated by services and goods sold. It is the initial, immediate effects caused by a specific activity, such as the manufacture of goods for export.

Economic Impact - the effects of a change in economic activity or policy action. “Total” impacts consist of “Direct” Impacts, which are the effects of the initial change in activity, “Indirect” Impacts, which consist of the effects on all sectors linked either directly or indirectly to the initiating sector, and “Induced” Impacts, which measure how a general change in overall economic spending and income patterns affects the household sector.

Export Declaration - the Shipper’s Export Declaration (SED) is the basic form that is used to report export transactions. It is prepared by the exporter or a forwarding agent and presented to the U.S. Customs Service at the port of export. The information contained in the export declaration is used by the Census Bureau to tabulate export statistics and by the Bureau of Export Administration to regulate the export of commodities subject to legal restrictions.

Employment Impact - the effect of a change in production or sales on the number of jobs in the various industry sectors impacted by the change.

Exports – goods shipped out of the United States to foreign countries

FAS - Free Alongside Ship - refers to pricing terms in international trade. Goods sold “FAS” are placed in the dock shed or at the side of the ship, on the dock or lighter, within reach of its loading equipment so that they can be loaded aboard the ship, at the seller's expense. The buyer is then responsible for the loading fee, main carriage/freight, cargo insurance, and other costs and risks.

FTE - see “Full-time equivalent”

Full-time equivalent - a unit of measurement for employment that converts all full-time and part-time jobs into numbers of full-time jobs, based on the number of hours worked. For example, if two employees are reported as working 20 hours each per week, that is calculated as one FTE job, based on the average 40-hour work week.

Geo-coding - the process of appending latitude and longitude coordinates to address information, allowing the information to be displayed on GIS maps

GIS - Geographic Information System – A type of computer software that allows the user to manipulate geographic information and to produce maps of data

Harmonized System - an international commodity classification system developed under the auspices of the Customs Cooperation Council, and used for describing goods in international trade.

Imports - goods shipped into the United States from foreign countries

In-transit trade - goods imported into the United States from foreign countries that are destined for another country. For example, Southern California ports handle some cargo from Asia that is destined for Mexico.

Income Impact - the effect of a change in production or sales on wages and salaries of persons employed by the various industry sectors affected by the change.

Indirect Impact - the changes to production, employment, incomes, etc., which take place as a result of the direct effects. It includes the effects on industry sectors that may be directly or indirectly related to the initially impacted sector.

Induced Impact - the changes in spending by households in the regional economy as the result of Direct and Indirect Effects from some economic activity. The induced effects arise from a general change in the earnings and spending patterns of the household sector of an economy due to the direct and indirect effects.

Industry sector - see “NAICS”

Input-Output Model - an analytical technique used to assess economic impacts, based on a mapping of the economic linkages among the various industry sectors of an economy. The fundamental premise of this technique is that changes in production levels of an economy's basic industries will produce an iterative process of spending, income creation, and re-spending, thereby changing the production levels of other, directly and indirectly related industries.

Los Angeles Customs District - the geographic grouping of ports of entry that includes the seaports of Los Angeles, Long Beach and Port Hueneme, as well as small boat harbors in the region. It also includes the airports in the region such as Los Angeles International and McCarran International in Las Vegas.

Margin - Margins split the price charged for a good into appropriate producer values, each value impacting a specific industry. For example, the purchase price of a tire at an automotive retailer includes the producer price at the factory door plus transportation costs, the wholesaler's markup, and the retailer's markup. The wholesaler's markup is known as the wholesale margin. The retailer's markup is known as the retail margin.

MISER - Massachusetts Institute for Social and Economic Research - an interdisciplinary research institute of the College of Social and Behavioral Sciences at the University of Massachusetts. MISER's research involves planning, strategy, and forecasting, with a focus on social, economic, and demographic issues. The foreign trade unit at MISER provides the state export data series used in this report. Work on this product has been shifted to Holyoke Community College in Massachusetts. WISERTrade now produces estimates of exports for each state based on detailed analysis of the U.S. Department of Commerce's Export Declarations.

Multiplier - a numeric measurement, expressed as a mathematical ratio, of the Total Effect, including the Direct, Indirect, and Induced Effects, to the direct effect associated with a specific activity, or a change in some activity.

NAICS - North American Industry Classification System - a system for classifying business establishments, adopted in 1997 to replace the old Standard Industrial Classification (SIC) system. It is the industry classification system currently used by the statistical agencies of the United States.

Output – the value of production or sales created within the economy by a given economic activity (international trade, for example).

Output Impact - the change in dollar value of output from all sectors that results from a change by one dollar in production or sales of any given single sector.

San Pedro Bay ports – the Port of Los Angeles and the Port of Long Beach.

PIERS - Port Import Export Reporting Service - the primary source for import and export data that includes shipper information, data not available from any government source. PIERS uses the Freedom of Information Act to obtain import and export documentation for all international waterborne shipments moving into and out of the United States, then creates a detailed database describing these movements.

Redistricting - the process of determining the new geographical boundaries of each U.S. Congressional District, based on the most recent Census data.

Regional Input-Output Modeling System (RIMS II) – a model for estimating economic impacts that accounts for the relationships among industries. This model, developed by the Bureau of Economic Analysis, produces a set of input-output (I-O) multipliers that are used to estimate how the economy responds to changes in economic activity. The model is based on an accounting framework called an I-O table. For each industry, an I-O table shows the industrial distribution of inputs purchased and outputs sold.

RIMS II - see “**Regional Input-Output Modeling System**”

Total Impact - the sum of the Direct, Indirect, and Induced impacts.

Type II Multiplier - multipliers used in Input-Output (I-O) Models and Economic Impact Analysis normally consist of Type I multipliers, which assess the ratio of the direct and indirect effects to the direct effects, and Type II multipliers, which measure the ratio of the direct, indirect, and induced effects to the direct effects. This report uses Type II multipliers.