
Critical Goods Movement Issues Scan for Riverside County

presented to

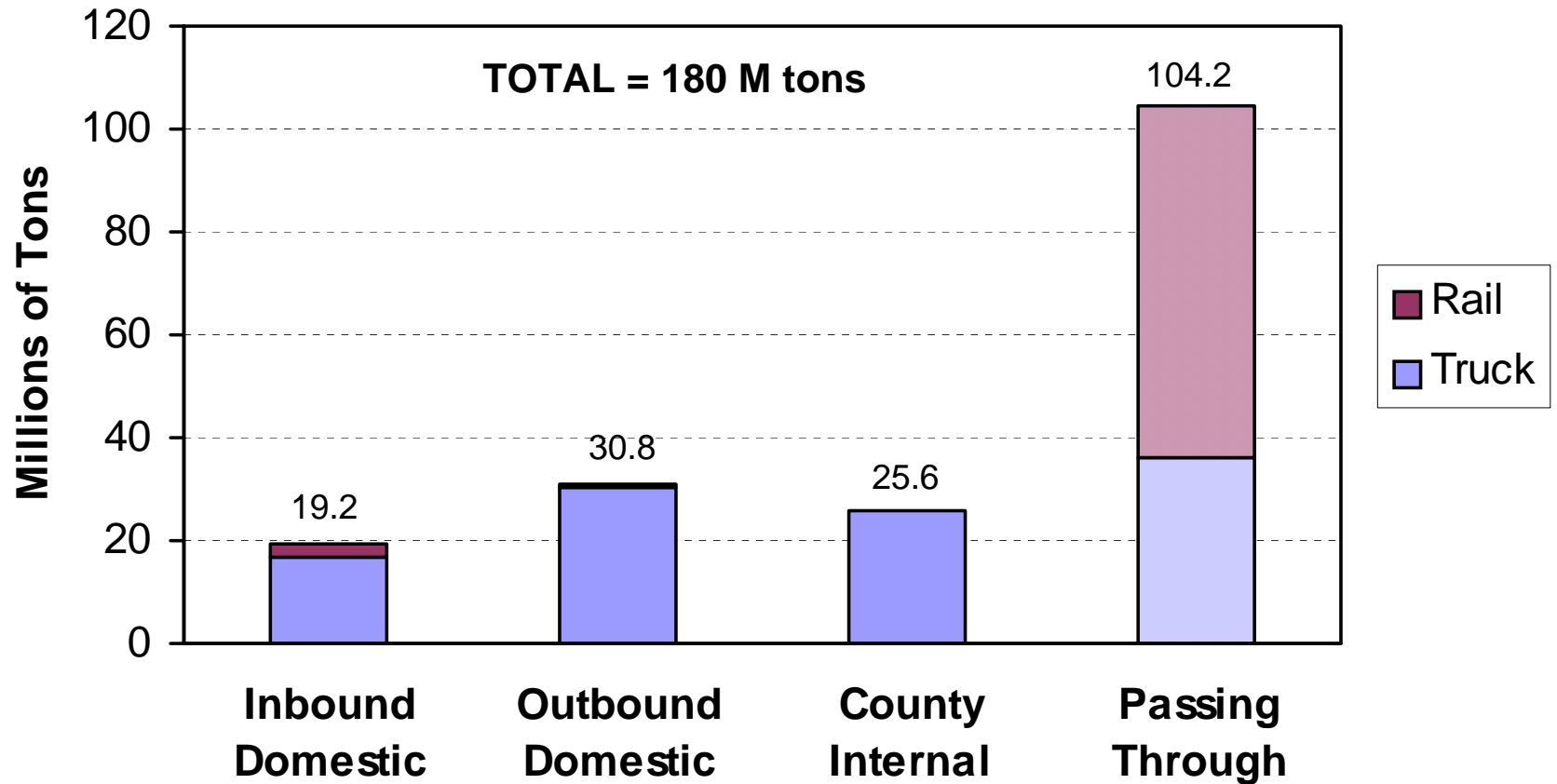
Riverside County Transportation Commission

presented by

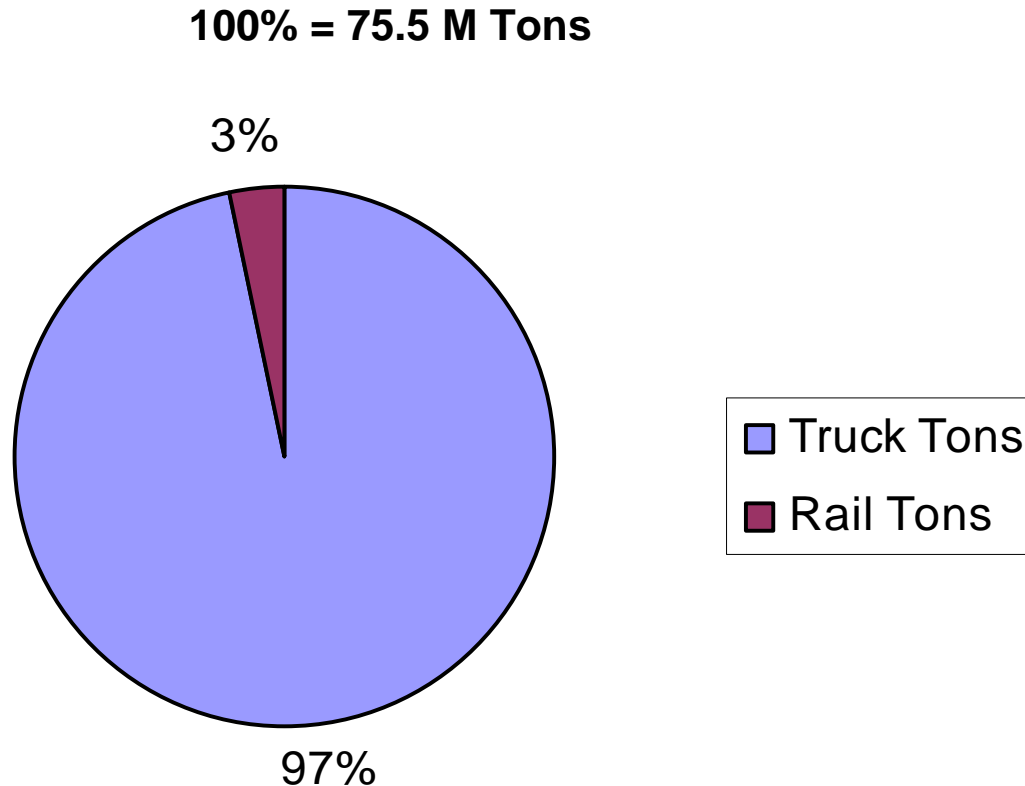
Cambridge Systematics, Inc.

September 15, 2006

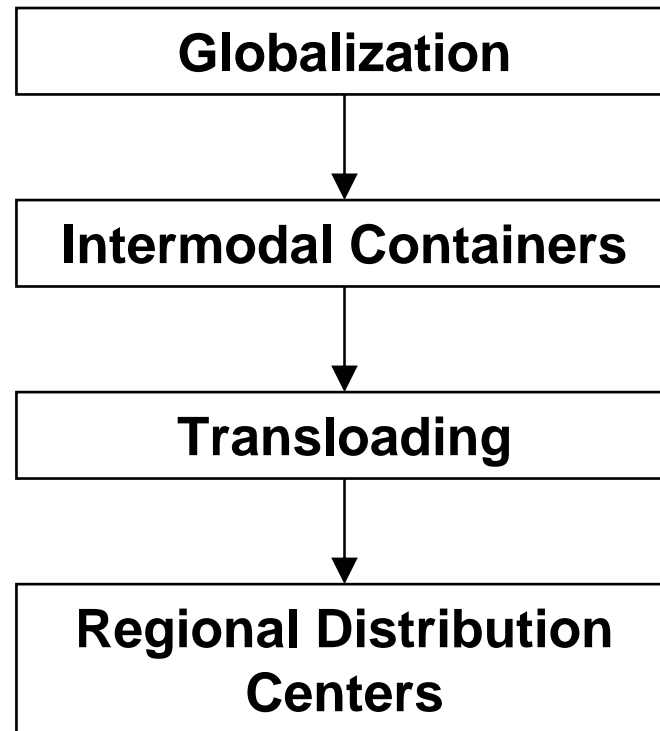
Riverside County Trade Balance (2003)



Trucking Carries the Largest Share of Trade Destined to and from Riverside County

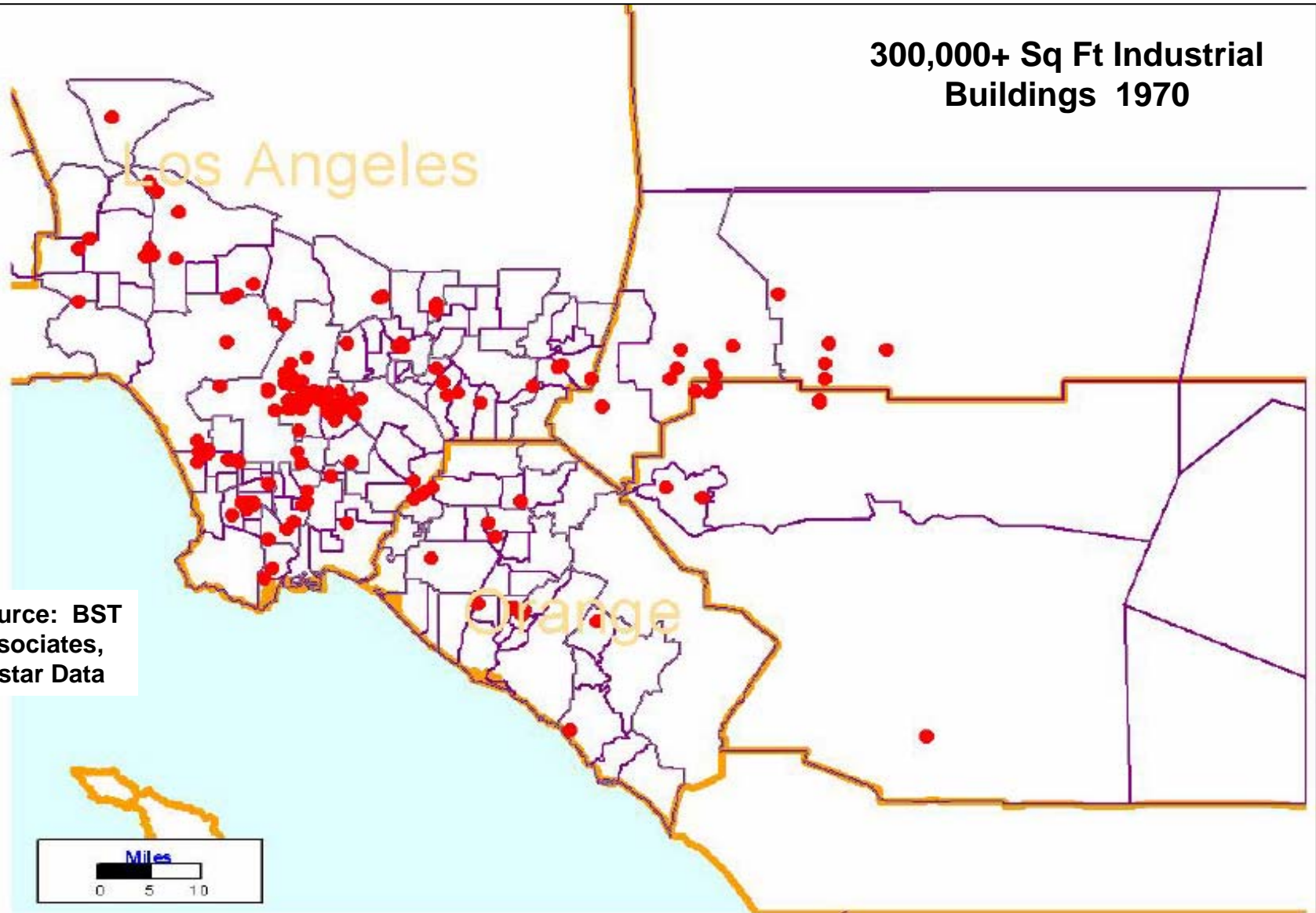


Trends in Logistics



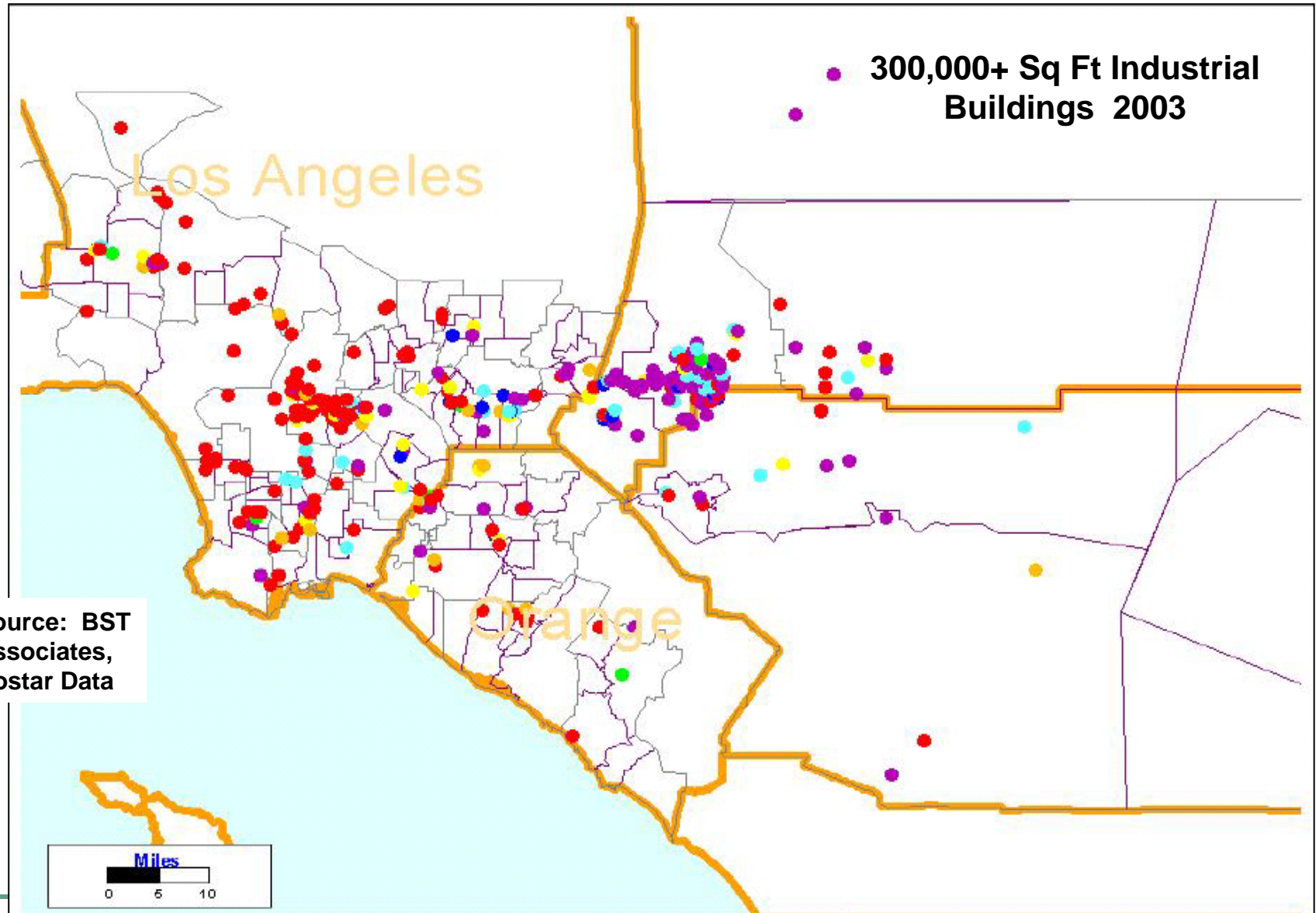
Large Distribution Centers Are Shifting Inland

300,000+ Sq Ft Industrial Buildings 1970



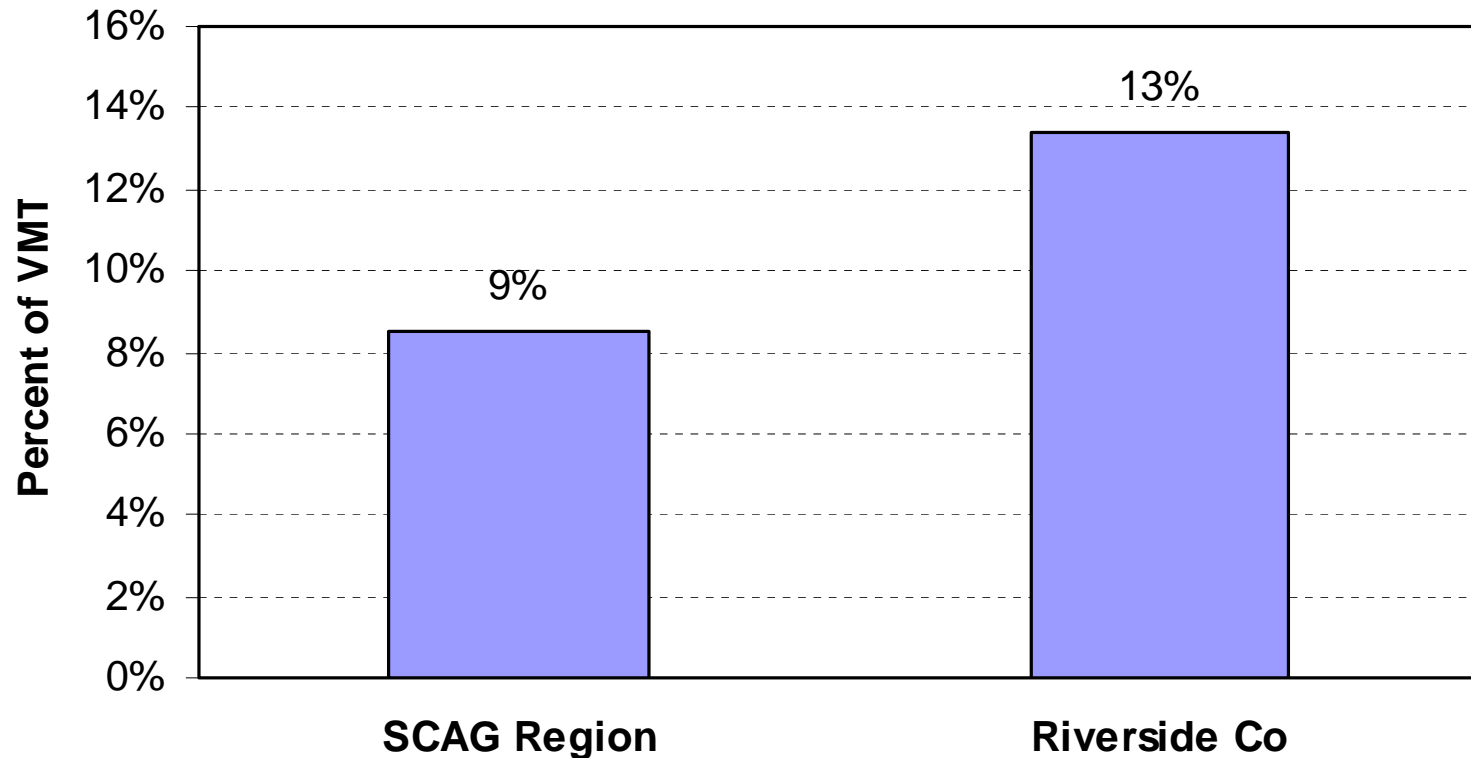
Source: BST Associates, Costar Data

Large Distribution Centers Are Shifting Inland



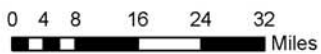
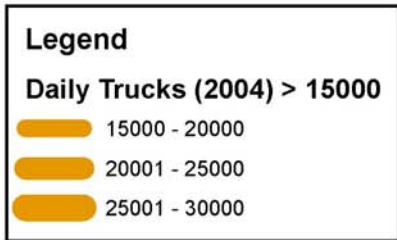
Trucks Are a Higher Percent of Total Traffic in Riverside County than the Region as a Whole

State Highways Only, 2003
2-Axle, Dual Rear Wheel Trucks and Larger Only



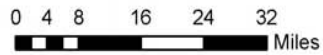
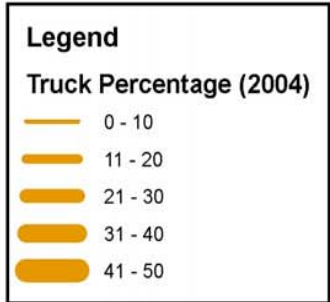
Source: Truck Miles of Travel, California State Highway System, 1998-2003, Caltrans

Major State Highways with More than 15,000 Trucks per Day (2004)



Source: Caltrans, Traffic and Vehicle Data Systems Unit, 2004

Truck Percentage on Major State Highways (2004)



Source: Caltrans, Traffic and Vehicle Data Systems Unit, 2004

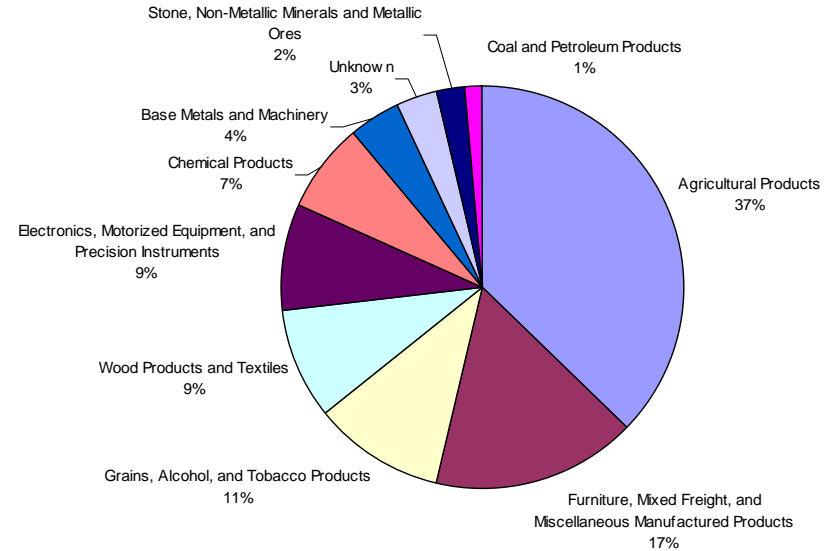
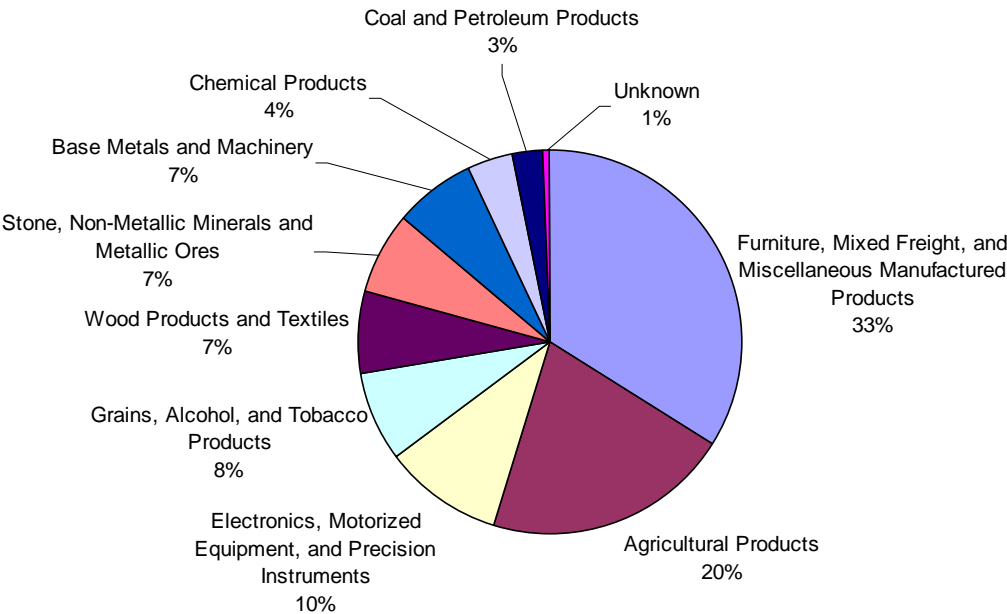
I-10 Over San Geronio Pass

Eastbound

Origin	% Total	Destination	% Total
LOS ANGELES	46.9%	ARIZONA	41.3%
SAN BERNARDINO	21.3%	RIVERSIDE	35.0%
RIVERSIDE	16.3%	IMPERIAL	13.8%
ORANGE	4.4%	OTHER	6.3%
KERN	3.1%	SAN BERNARDINO	1.9%
SAN DIEGO	2.5%	KERN	0.6%
SAN JOAQUIN	1.3%	MEXICO	0.6%
OTHER	4.4%	SAN DIEGO	0.6%

Westbound

Origin	% Total	Destination	% Total
ARIZONA	46.8%	LOS ANGELES	33.9%
RIVERSIDE	30.7%	SAN BERNARDINO	24.3%
IMPERIAL	20.6%	KERN	12.8%
OTHER	1.8%	RIVERSIDE	9.2%
		ORANGE	3.7%
		SAN DIEGO	2.3%
		VENTURA	2.3%
		OTHER	11.5%



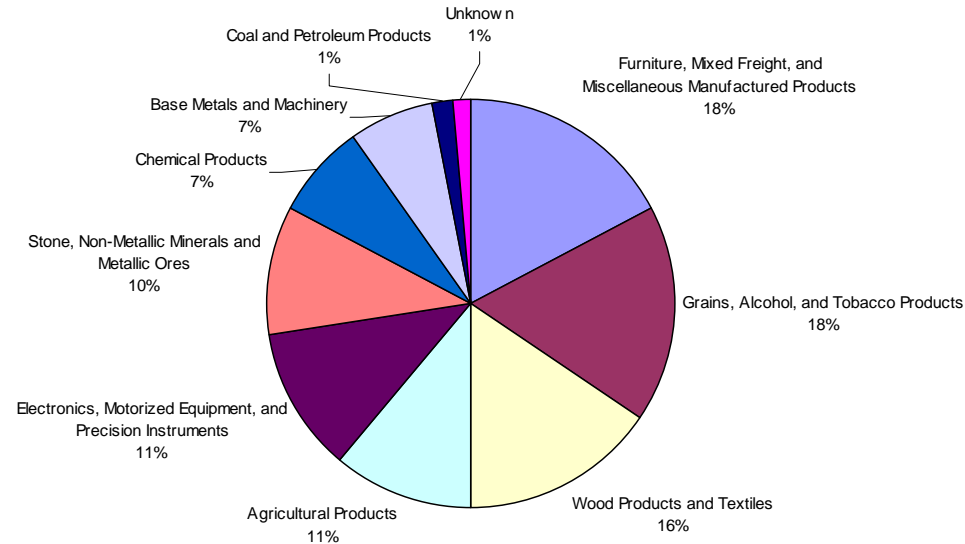
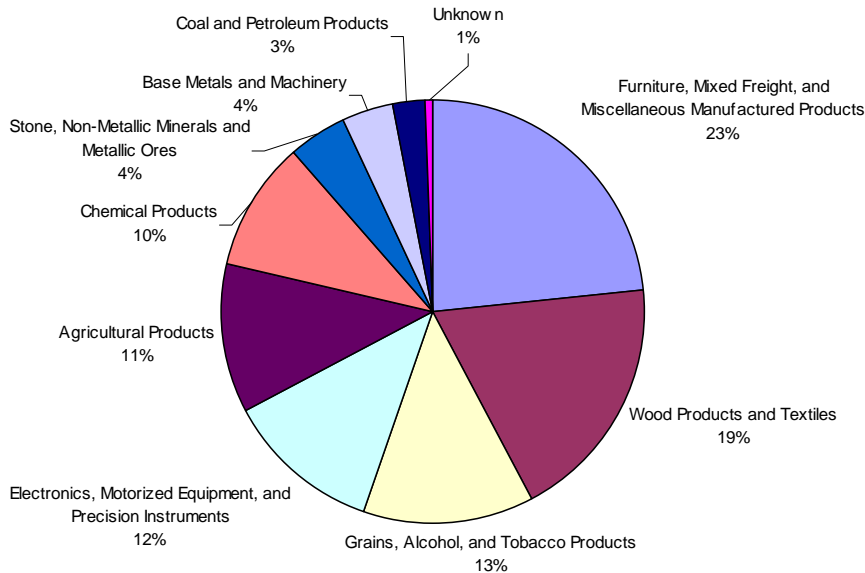
I-15 At Riverside-San Diego County Line

Northbound

Origin	% Total	Destination	% Total
SAN DIEGO	98.1%	SAN BERNARDINO	44.4%
RIVERSIDE	1.3%	RIVERSIDE	27.5%
LOS ANGELES	0.6%	LOS ANGELES	15.6%
		NEVADA	3.1%
		OTHER	9.4%

Southbound

Origin	% Total	Destination	% Total
RIVERSIDE	43.3%	SAN DIEGO	94.8%
SAN BERNARDINO	35.8%	LOS ANGELES	1.5%
LOS ANGELES	8.2%	RIVERSIDE	0.7%
ORANGE	5.2%	OTHER	3.0%
OTHER	7.5%		



Trucks Traveling Directly to and from the Ports Are a Small Percentage of Total Traffic

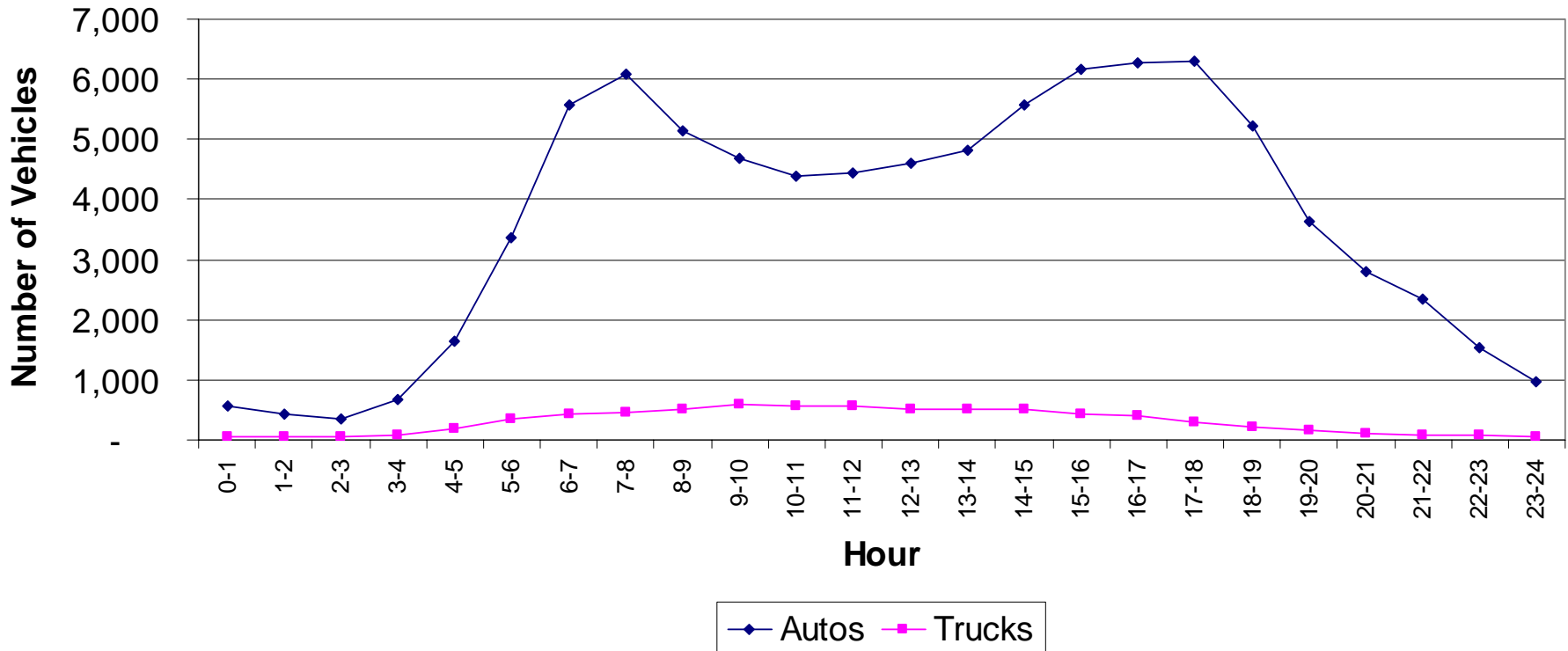
**Year 2001 Average Daily Volume on Three
Freeways Approaching Riverside County**

Freeway	Segment	Total Volume	Port Truck Volume	Port Truck % of Total
I-10	I-605 to SR-57	259,000	1,775	0.7%
SR-60	I-605 to SR-57	265,000	1,560	0.6%
SR-91	I-5 to SR-57	250,000	1,135	0.5%

Source: Port of Los Angeles Baseline Transportation Study, Apr 2004

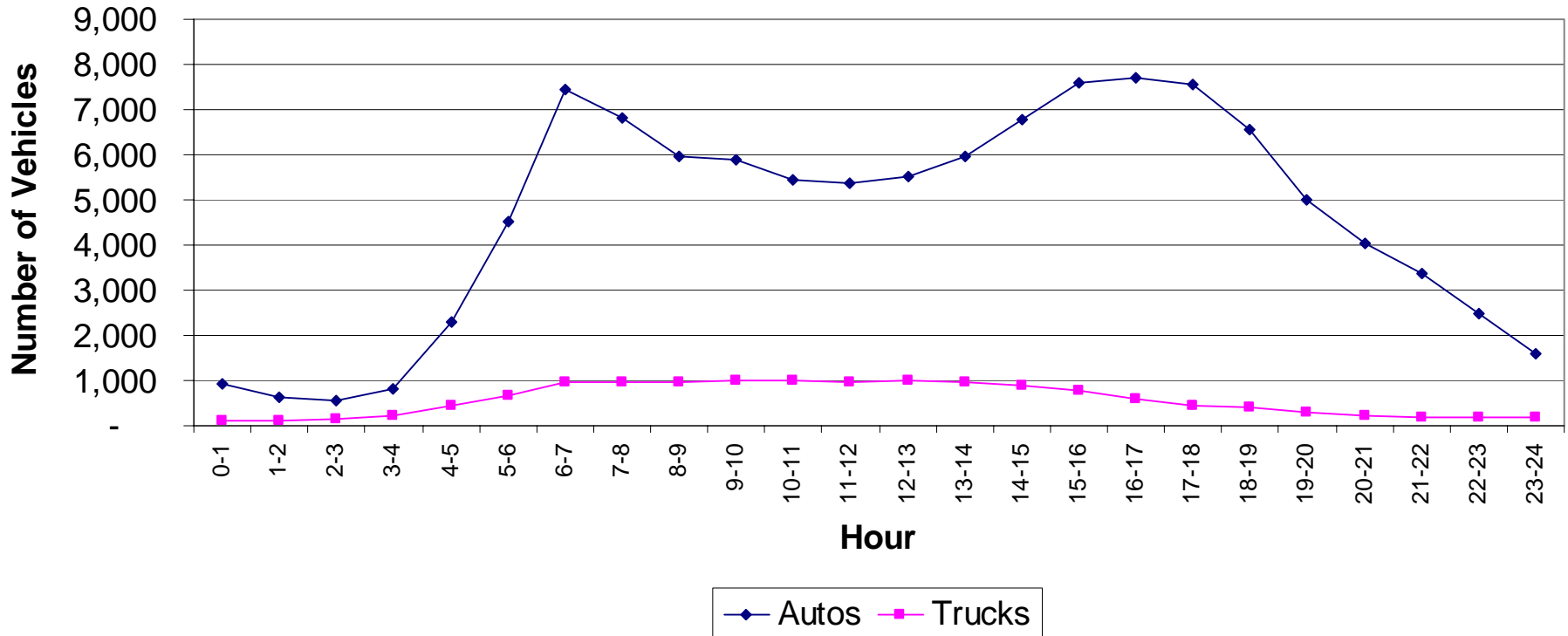
Peak Spreading is Narrowing Uncongested Truck Operating Windows in Western Riverside County

I-215 in Murrieta



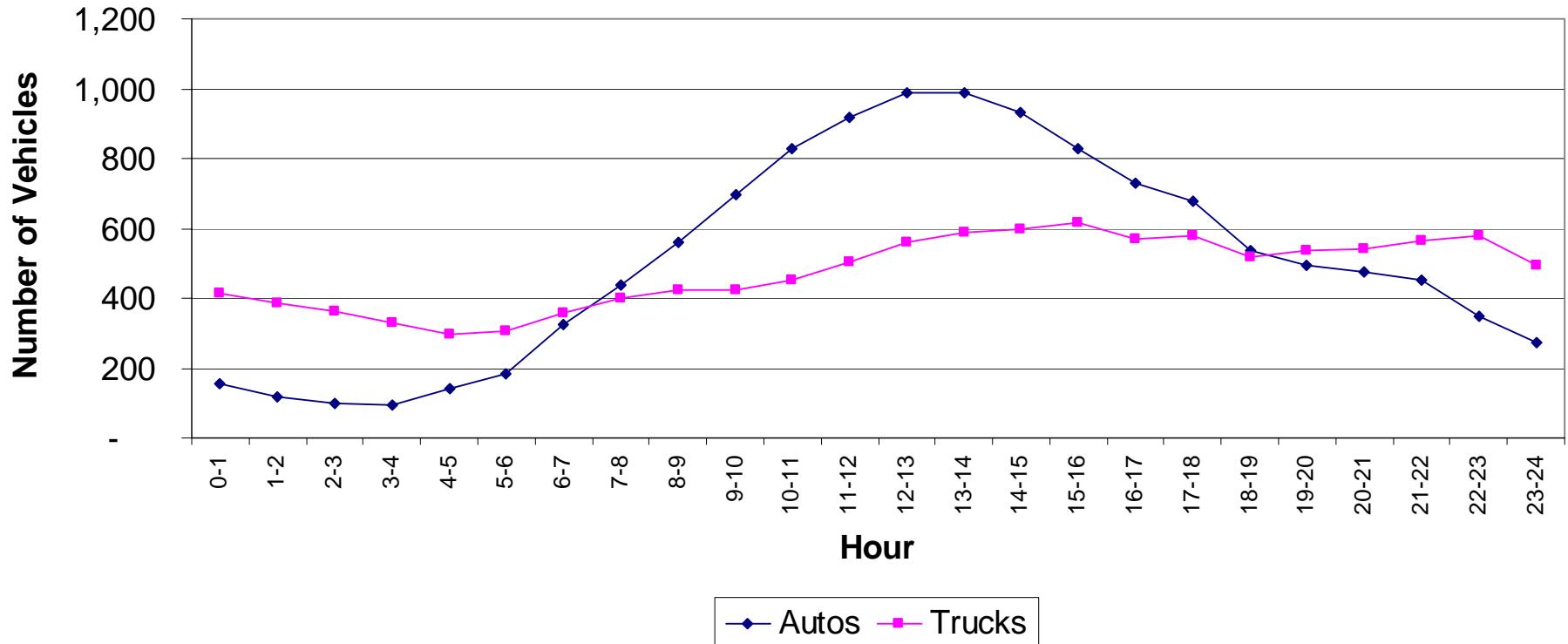
Peak Spreading is Narrowing Uncongested Truck Operating Windows in Western Riverside County

I-15 in Lake Elsinore



Traffic is Greatest During the Midday in the Coachella and Palo Verde Valleys

I-10 in Indio



Truck Related Injuries for Riverside County (2004)

Route	Injuries	Injuries/Million VMT
I-10	90	46
I-15	66	102
I-215	58	164
US 60	59	156
US 86	11	273
US 91	58	216

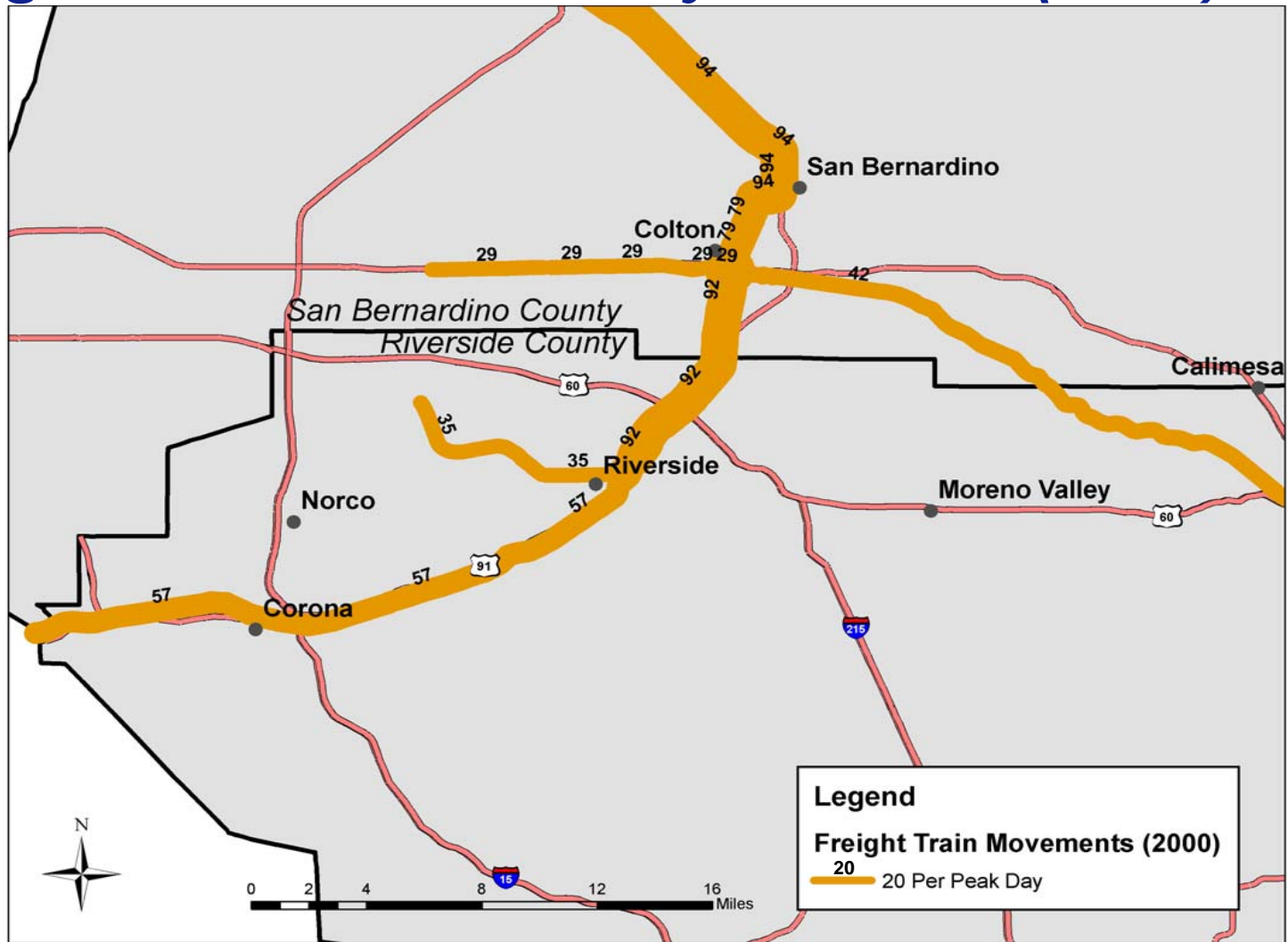
Source: California Highway Patrol SWTRS, 2004 for Injuries
Caltrans, Traffic and Vehicle Data Systems Unit, 2004 for VMT

Truck Related PDO Accidents for Riverside County (2004)

Route	PDO Accidents	PDO Accidents/ Million VMT
I-10	299	154
I-15	202	312
I-215	237	668
US 60	137	362
US 86	13	323
US 91	182	677

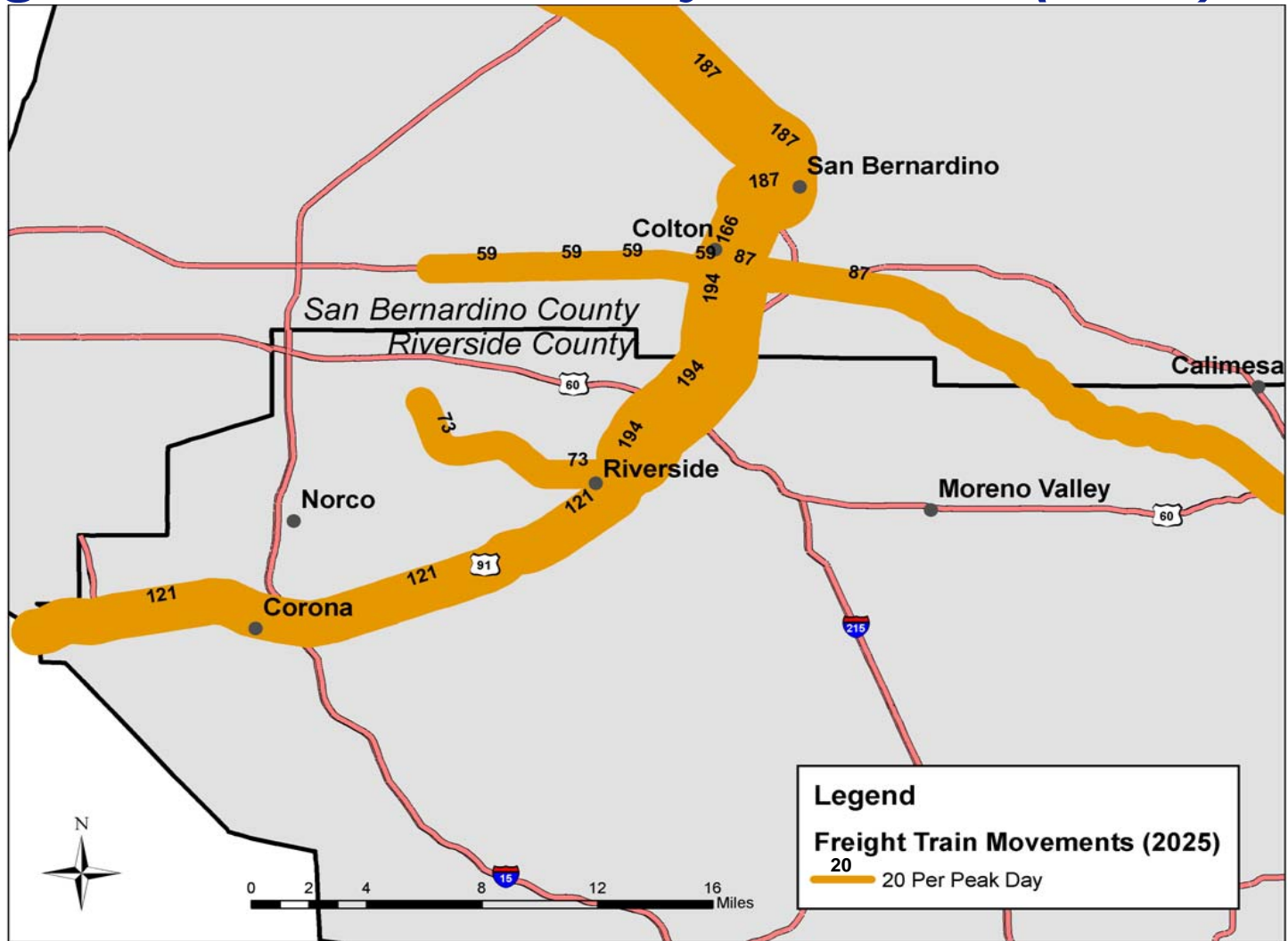
Source: California Highway Patrol SWTRS, 2004 for PDO Accidents
Caltrans, Traffic and Vehicle Data Systems Unit, 2004 for VMT

Freight Rail Line Peak Day Volumes (2000)



Source: SCAG, Inland Empire Railroad Mainline Study Final Report, June 2005

Freight Rail Line Peak Day Volumes (2025)



Source: SCAG, Inland Empire Railroad Mainline Study Final Report, June 2005

Nearly all Rail Tons in Riverside County Are Passing Through (2003)

	Rail Tons (thousands)	Percent of Total
Inbound	2,184	3.1%
Outbound	332	0.5%
Internal	0	0.0%
Passing Through	67,858	96.4%
TOTAL	70,374	100.0%

ONT and March Are Projected to Handle a Growing Percentage of the Region's Air Cargo

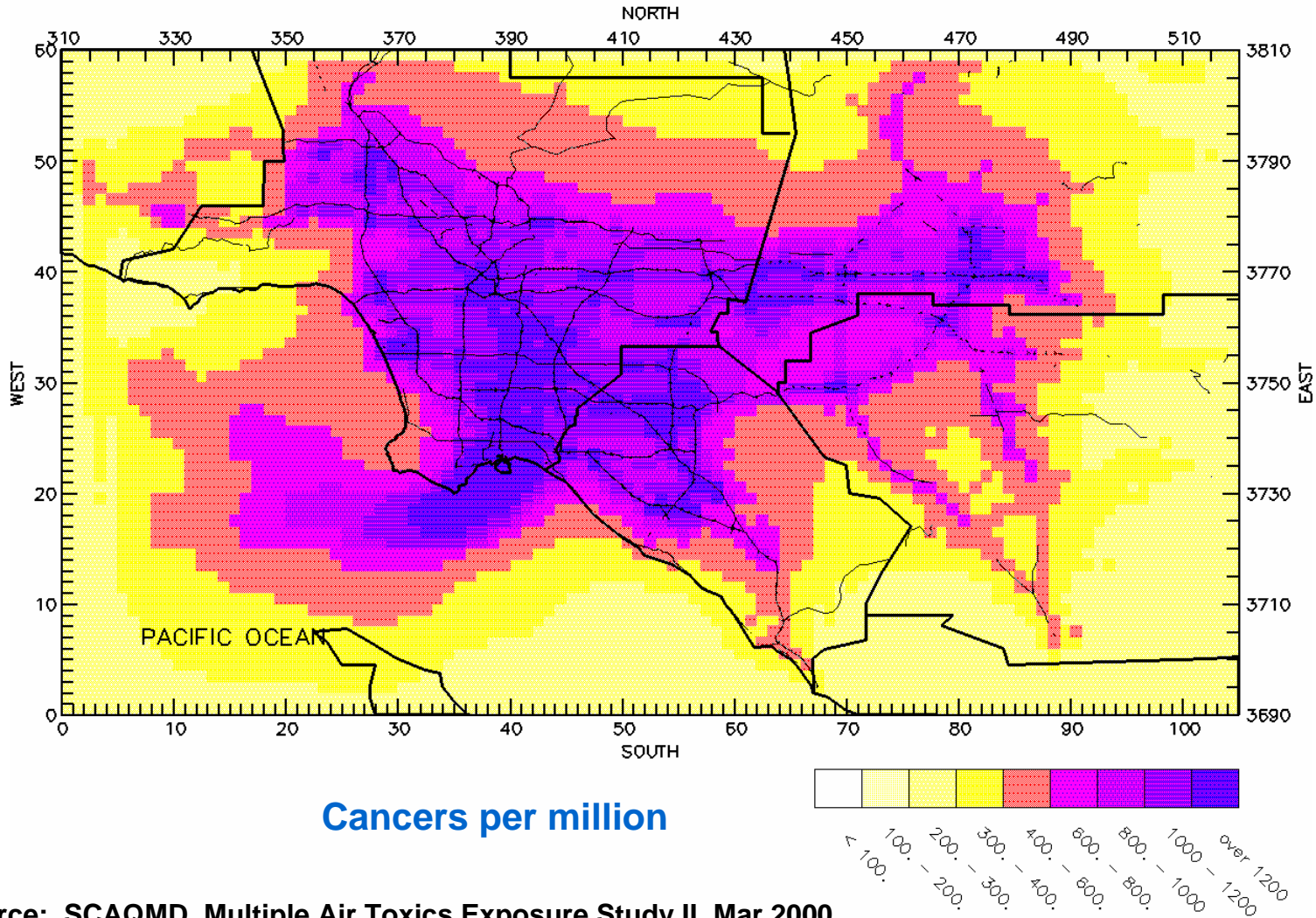
	2002		2030	
	Tons	Percent of Total	Tons	Percent of Total
LAX	1,958,000	74.7%	2,340,000	26.8%
ONT	547,000	20.9%	2,252,000	25.8%
March	0	0.0%	1,117,000	12.8%
San Bernardino	0	0.0%	1,092,000	12.5%
Palmdale	0	0.0%	1,024,000	11.7%
So. Calif. Logistics	0	0.0%	504,000	5.8%
Other	117,000	4.4%	395,000	4.6%
TOTAL	2,623,000	100%	8,724,000	100%

Source: SCAG 2030 Regional Aviation Plan

Air Pollution

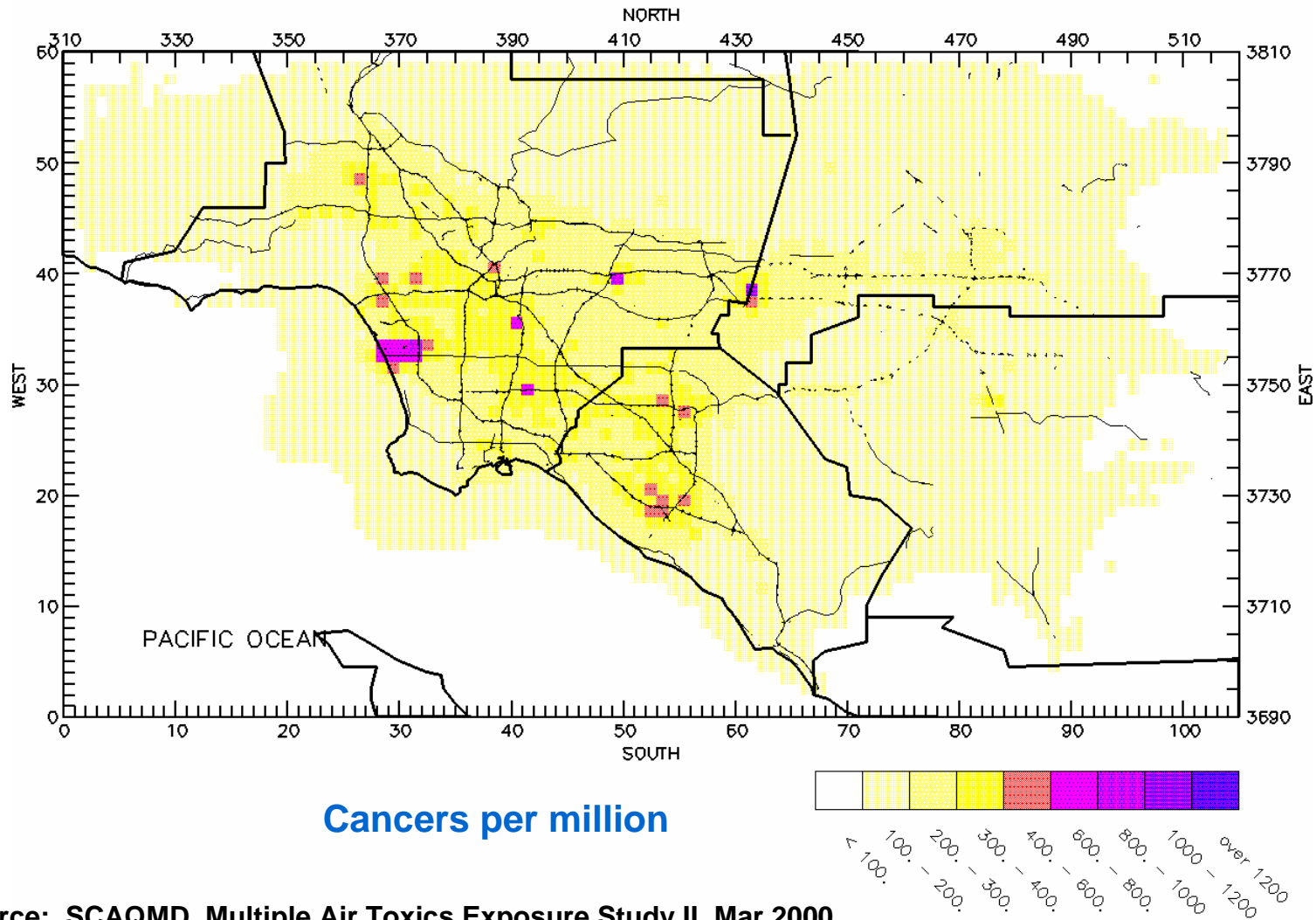
- **Issue primarily in Western Riverside County**
- **Riverside County is first in the nation for asthma, heart disease, respiratory ailments**
- **Inland Empire has worst air quality in California**
- **Mira Loma area has the highest levels of particulate pollution in the US (SCAQMD, Multiple Air Toxics Exposure Study II, Mar 2000)**
- **Diesel particulates are 71% of the major pollutants contributing to cancer risk in the South Coast Air Basin (SCAQMD, Multiple Air Toxics Exposure Study II, Mar 2000)**
 - **The largest source of diesel emissions in the South Coast Air Basin is the goods movement industry**

Estimated Risk of Cancer from Airborne Toxics: All Emission Sources



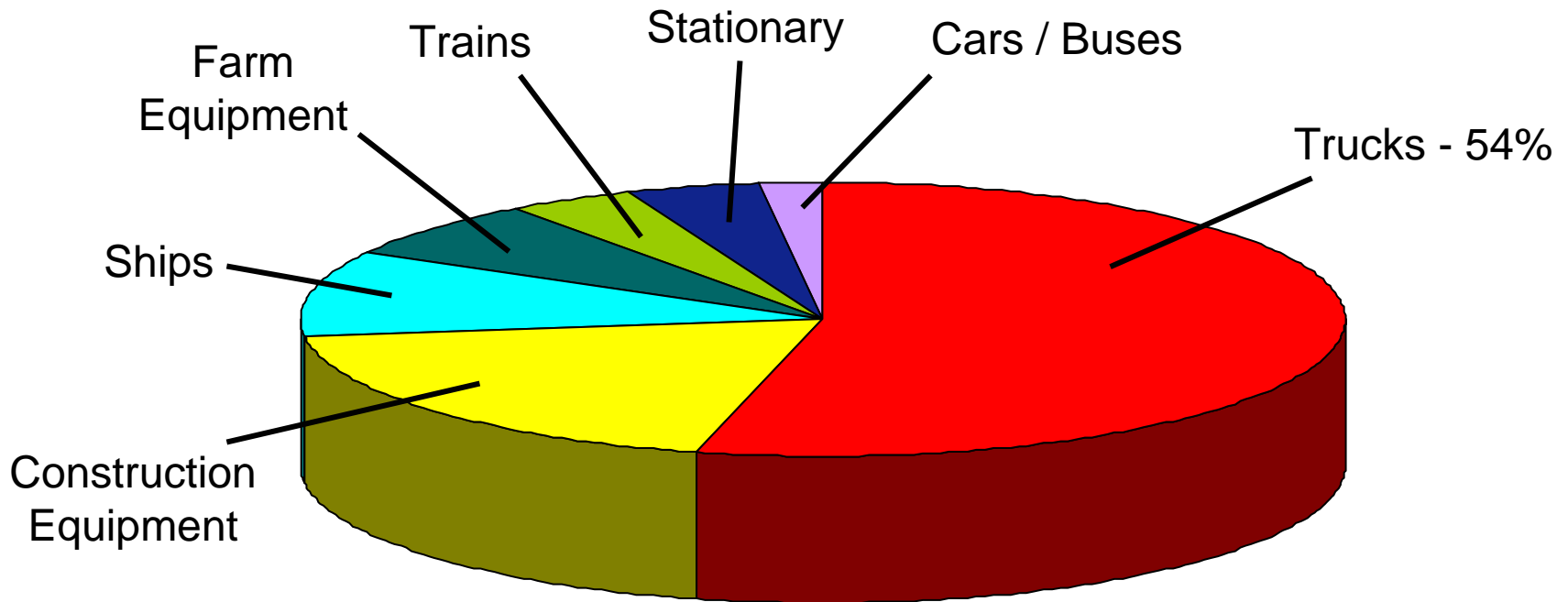
Source: SCAQMD, Multiple Air Toxics Exposure Study II, Mar 2000

Estimated Risk of Cancer from Airborne Toxics: Excluding Diesel



Source: SCAQMD, Multiple Air Toxics Exposure Study II, Mar 2000

Major Sources of Diesel Emissions (SCAG Region)



Source: California Air Resources Board

At-Grade Rail Crossings

- **61 mainline at-grade rail mainline crossings in Riverside County**
 - **53 in Western Riverside County, 8 in Coachella Valley**
- **Average crossing blocked one hour and 50 minutes per day**
 - **Projected to grow to three hours and 40 minutes by 2030**
- **10 crossings in Western Riverside County blocked three hours per day, including all in downtown Riverside**
 - **Projected to grow to six hours and 15 minutes in 2030**

Sources: Riverside County Rail Crossing Priority Analysis Draft Report, June 2006; Discussion with J. Field, County Supervisor J. Tavaglione's Office; Discussion with R. Caliva, County Supervisor Bob Buster's Office