



# Using Freight Data in Southern California

**Talking Freight Webinar  
December 20, 2017**

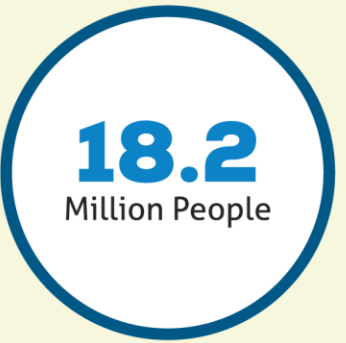
Annie Nam, Manager of Goods Movement &  
Transportation Finance  
Southern California Association of Governments

# About SCAG



- Nation's largest Metropolitan Planning Organization (MPO)
- 38,000 Square Miles
- 15 Subregions
- Nation's Global Gateway for Trade

## SCAG FACTS ▶



# Why Goods Movement Matters

The region is the largest **international trade gateway in the U.S.**, supported by marine ports, air cargo facilities, railroads, and freeways. In 2014, the Ports of Los Angeles, Long Beach, and Hueneme collectively handled over **\$473 billion** of maritime cargo.

6 Commercial Airports

3 international border crossings

2 Class I railroads

2 largest U.S. container ports

Extensive network of freeways and arterials

Abundant warehousing facilities



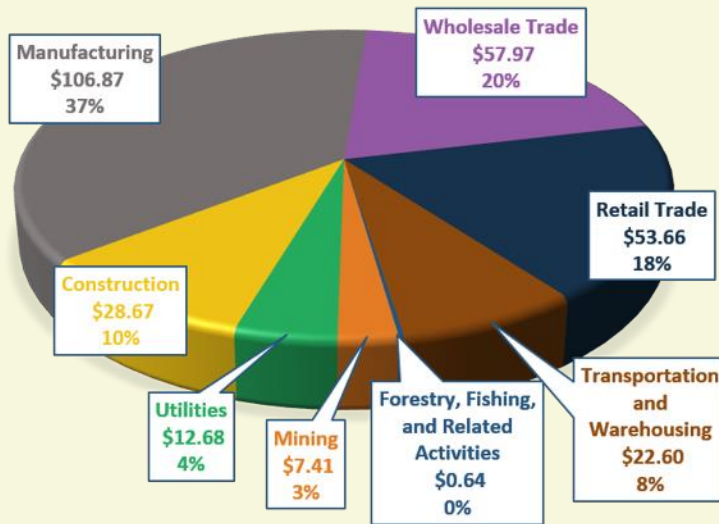
In 2014, over **\$14 billion** of trade passed through Imperial County POEs.

Regional airports handled nearly **\$101 billion** in international air cargo in 2014.

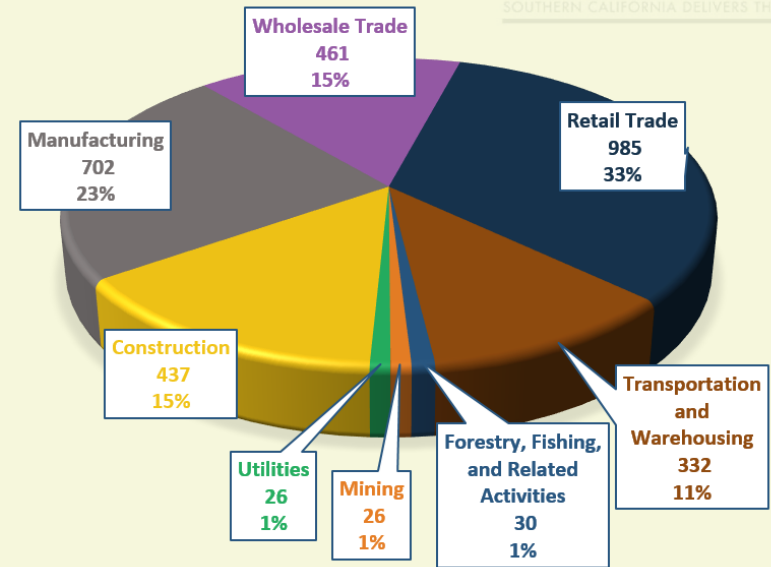
- ✦ Ports
  - ✦ Ports of Entry
  - ✦ Major Airports
  - Intermodal Facilities
- (Source: SCAG, CoStar Realty Information Inc.)

# Why Goods Movement Matters

Economic Contributions 2014,  
\$291 billion GRP



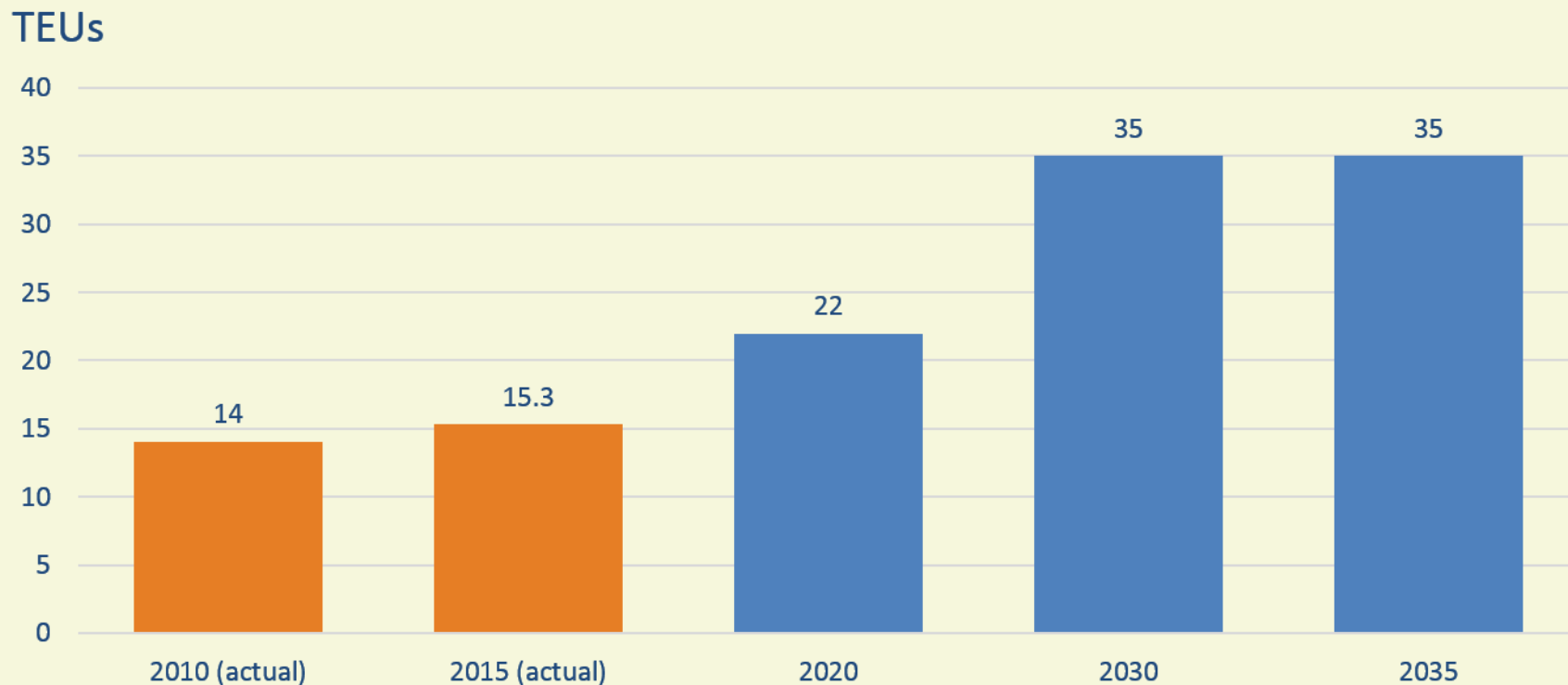
Employment Contributions 2014,  
2.9 million jobs



Goods movement dependent industries include manufacturing, retail trade, wholesale trade, construction, transportation and warehousing sectors

# Trade Flow Through the San Pedro Bay Ports

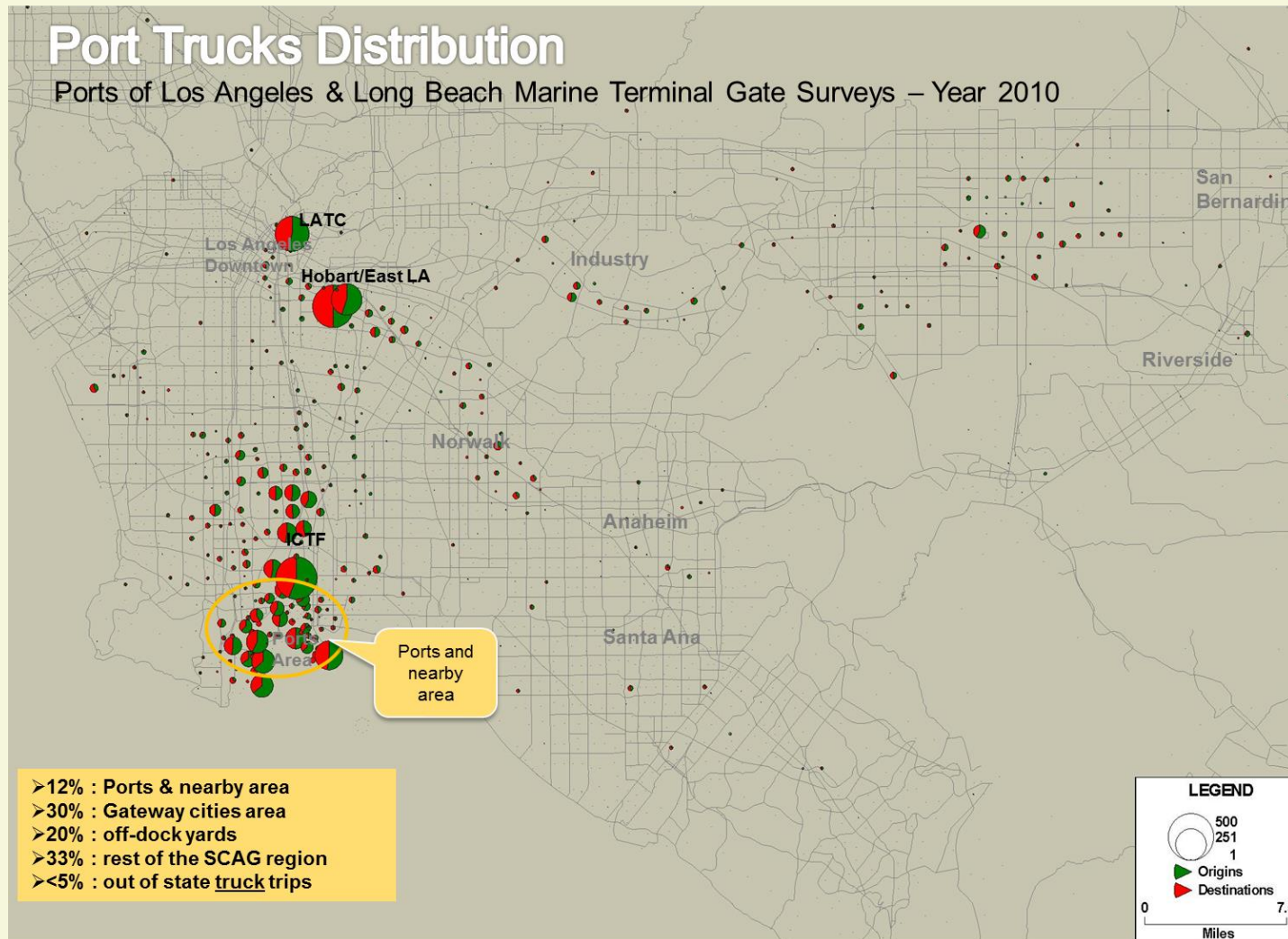
## San Pedro Bay Ports Container Forecast (millions of TEUs)



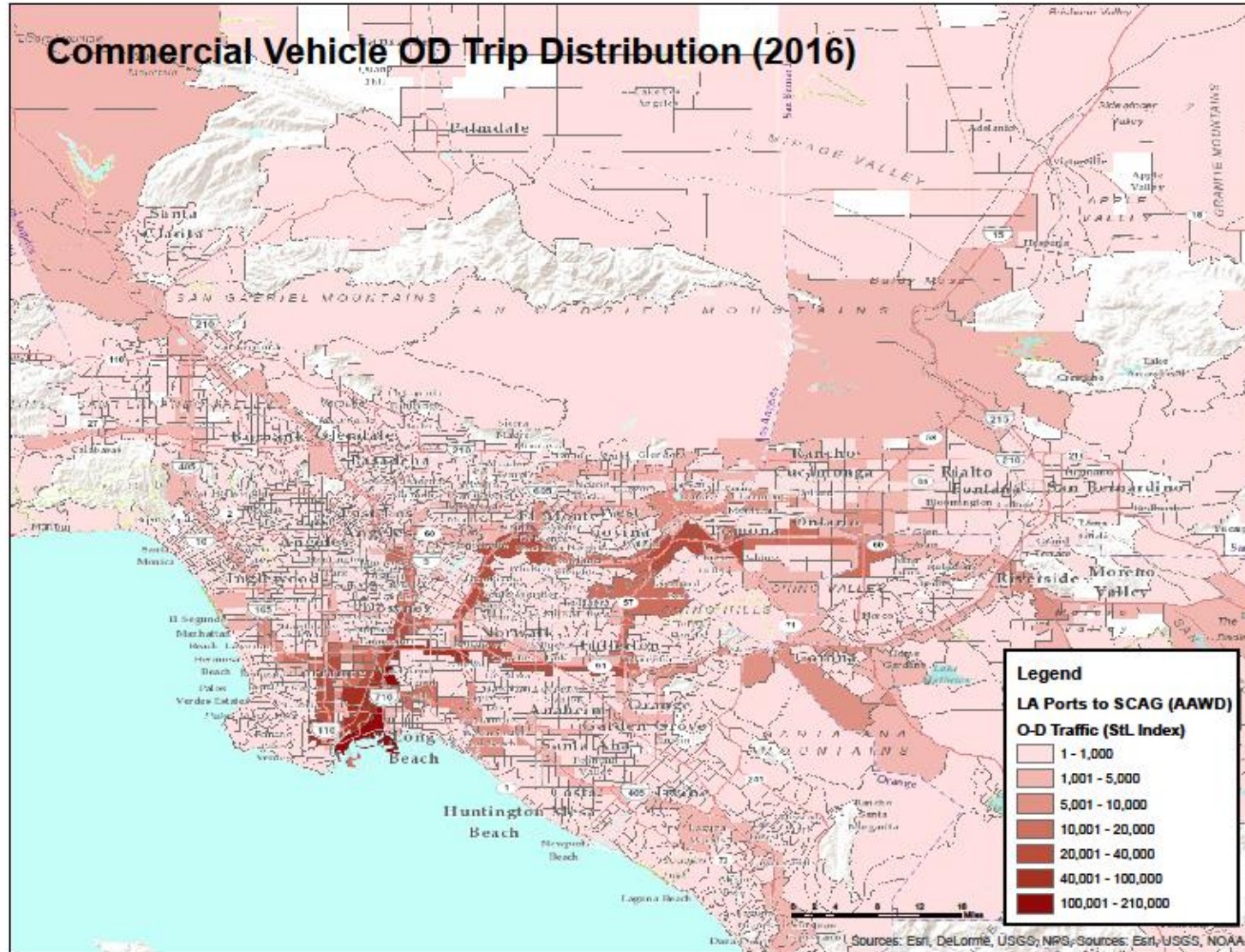
# Trade Flow Through the San Pedro Bay Ports

## Port Trucks Distribution

Ports of Los Angeles & Long Beach Marine Terminal Gate Surveys – Year 2010



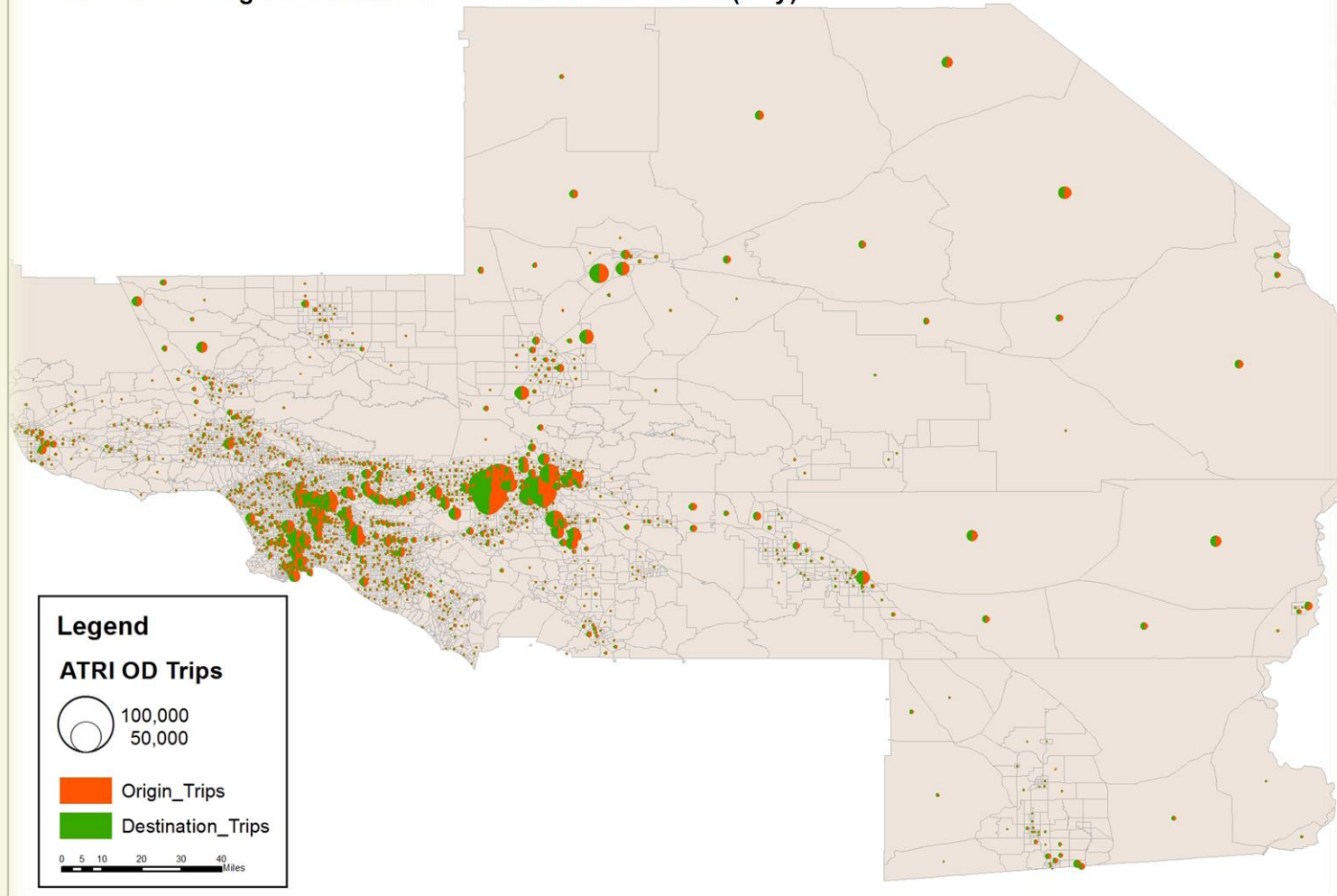
# Trade Flow Through the San Pedro Bay Ports



# Trade Flow Through Southern California

## ATRI Truck OD Distribution in SCAG region

SCAG Truck Origin & Destination Distribution- Year 2015 (May)





# Importance of a Thriving Logistics Industry

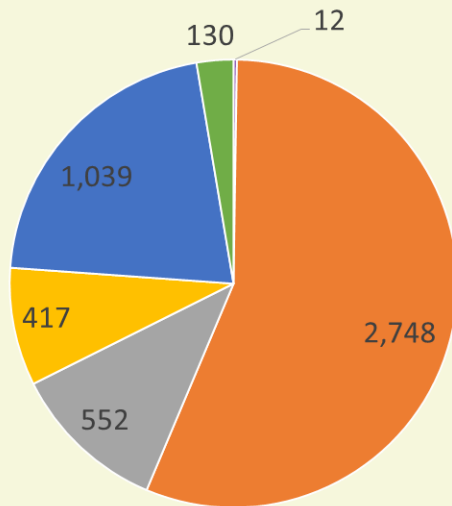
- The SCAG region has one of the nation's largest concentration of warehousing space
  - About 1.2 billion sq. ft. of warehousing and distribution centers
  - Nearly 97% of this space is occupied
  - About 750 million sq. ft. of this space are facilities larger than 50,000 sq. ft.



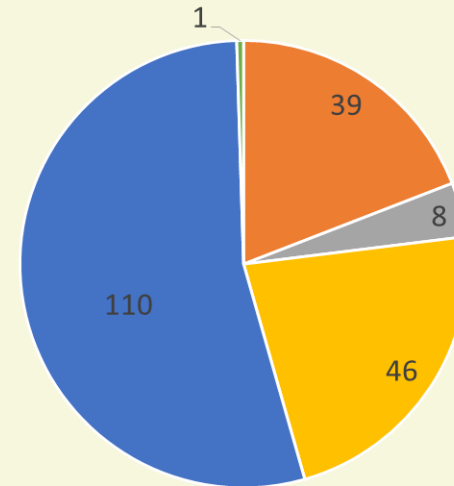
# Total Number of Buildings



For Facilities  $\geq 50,000$  Sq. Ft.



For Facilities  $\geq 500,000$  Sq. Ft.

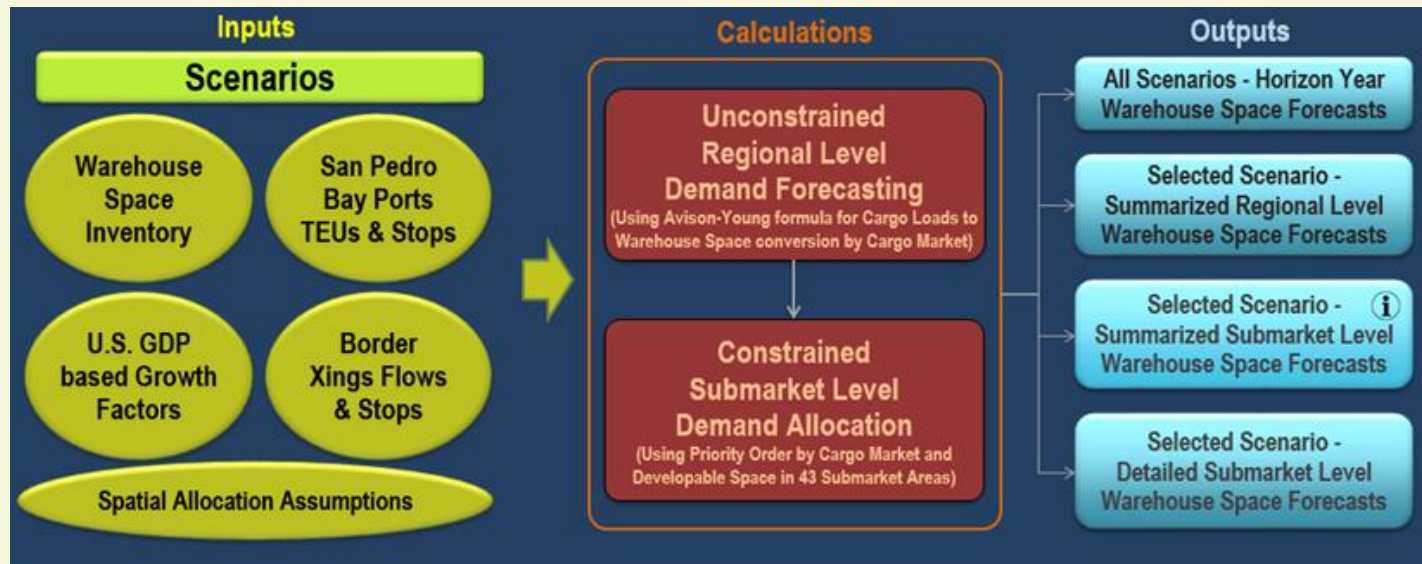


- Imperial
- Los Angeles
- Orange
- Riverside
- San Bernardino
- Ventura

Source: CoStar Realty Inc. November 2014 downloads

# Warehousing Space Scenario Planning Model

- Forecast regional warehouse space and allocate space to submarket areas.
- Identify alternate scenarios based on key logistics trends and evaluate implications using warehouse space model.
- Understand warehousing related policies and associated effects on the transportation system for the SCAG region



# Global Supply Chain Key Trends

## Six *historical* trends were studied:

- Mega distribution centers (DC)
- Transloading and cross-docking
- Distribution center location
- Value-added services
- Vendor-managed inventory
- Information technology (IT) in cargo-handling facilities



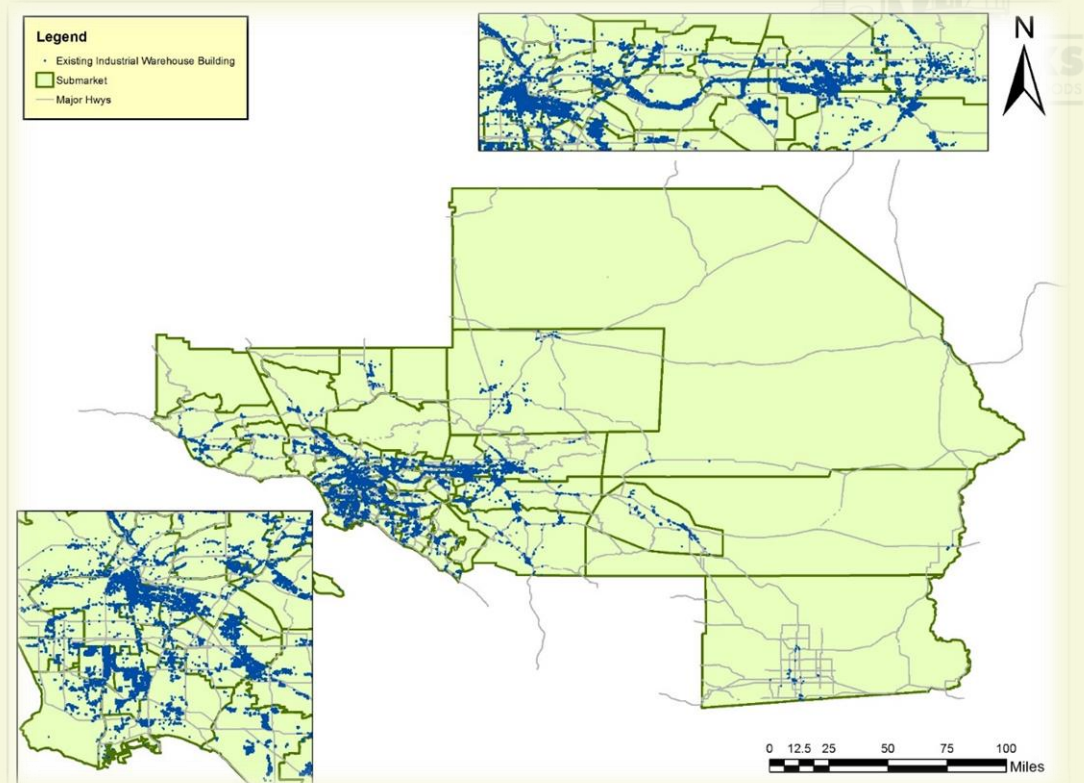
## Five *emerging* trends also were reviewed:

- Multimodal logistics centers
- Near-shoring and re-shoring
- Warehouse automation
- Retail order fulfillment
- Compressed time of order fulfillment



# Warehousing Space Scenario Planning Data

- CoStar Property® data for SCAG Region
- REMI based National Gross Domestic Product forecasts
- Developable lands for future industrial warehousing & General Plan Land Use Data
- San Pedro Bay Ports' Data and TEU forecasts

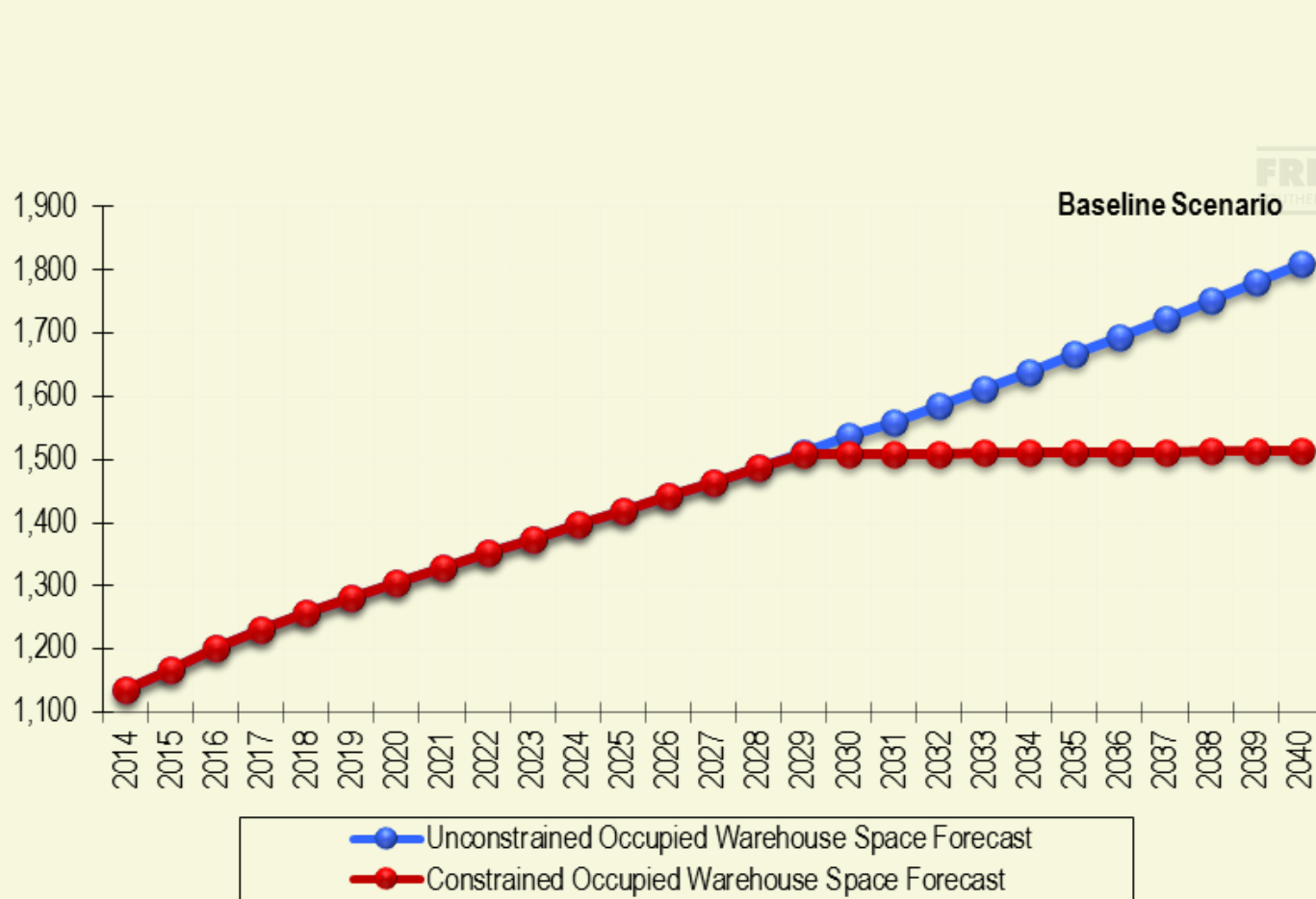


# Some Key Scenarios Analyzed to Date



<p><b>0</b></p> <p>Baseline Scenario</p>	<p><b>1</b></p> <p>Baseline Scenarios plus Efficiency Gain.</p>	<p><b>2</b></p> <p>Scenario 1 plus Replacement of Obsolescent Warehouses.</p>
<p><b>3</b></p> <p>Scenario 1 plus Increased mega RDCs share.</p>	<p><b>4</b></p> <p>Scenario 1 plus Increased cross-docking share.</p>	<p><b>5</b></p> <p>Scenario 1 plus Increased e-commerce and fulfillment centers (distribution centers) share.</p>
<p><b>6</b></p> <p>Scenario 1 plus Lower Border Crossing Growth Scenario.</p>	<p><b>7</b></p> <p>Scenario 1 plus Higher Border Crossing Growth Scenario</p>	<p><b>8</b></p> <p>Scenario 1 plus Increased developable industrial use land available.</p>

# Baseline Scenario Warehouse Space Forecast



# Some Key Discussion Points for Planning & Policy

- The scenarios tested assume no net reduction in the future developable space for logistics facilities. However, there are various interests to convert existing industrial land to other uses.
  - What would be tangible benefits for local jurisdictions to preserve the existing land use designation for industrial development—particularly for warehouse & distribution centers?
- “Efficiency Gains” assumed in the scenarios tested include 24/7 operations of the facilities
  - What considerations should be given to 24/7 operations of logistics facilities?
  - How would we mitigate potential impacts?
  - What are the potential implications to Port operations?
- What considerations should be given to vertical growth of logistics facilities?
- Rapid technology changes continue to take place in logistics facilities across the region
  - What are the implications to employment skill requirements and workforce development?





# Thank You