

Transportation Research Board

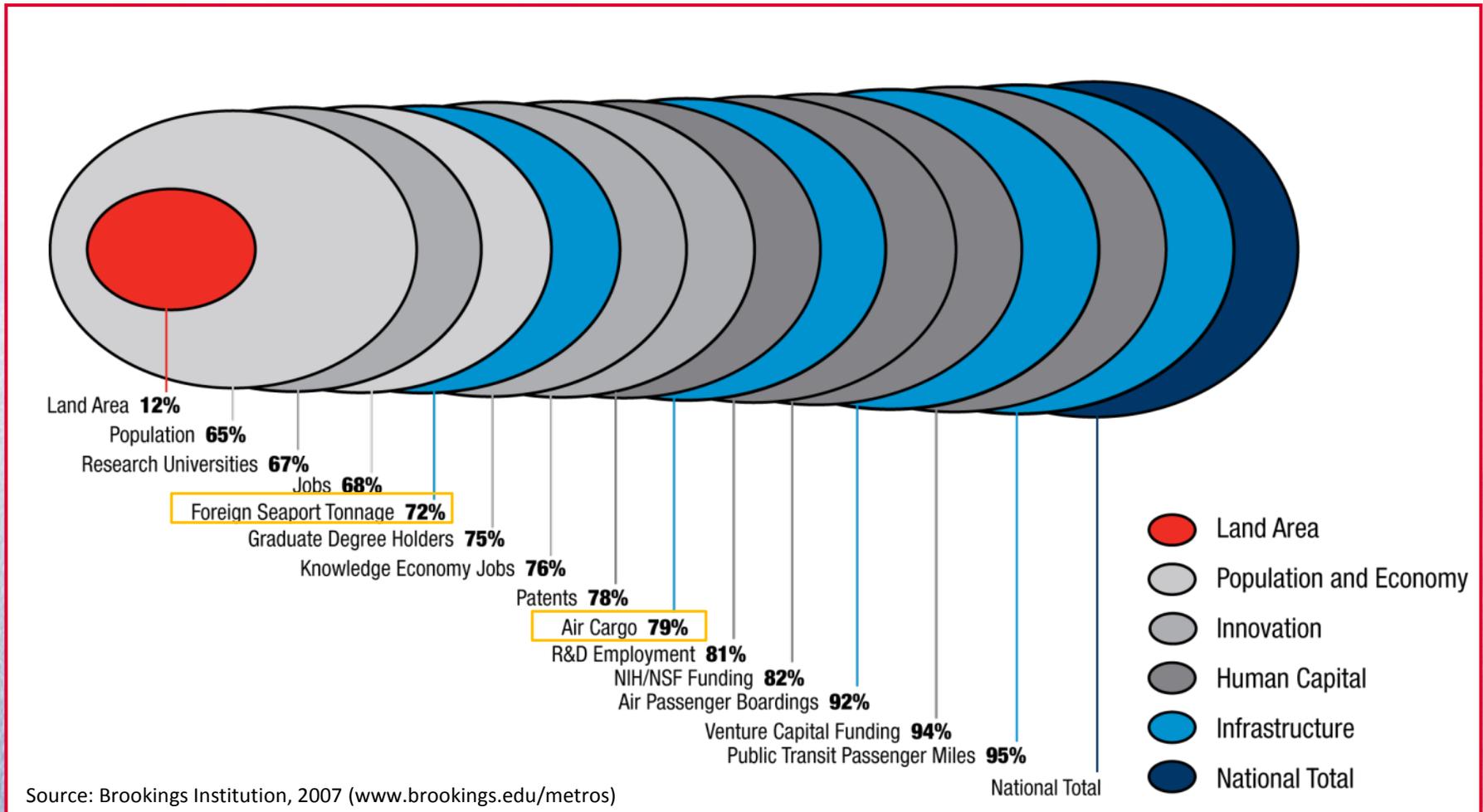
# **Trends in U.S. Transportation Systems: Freight**



MPO Perspective

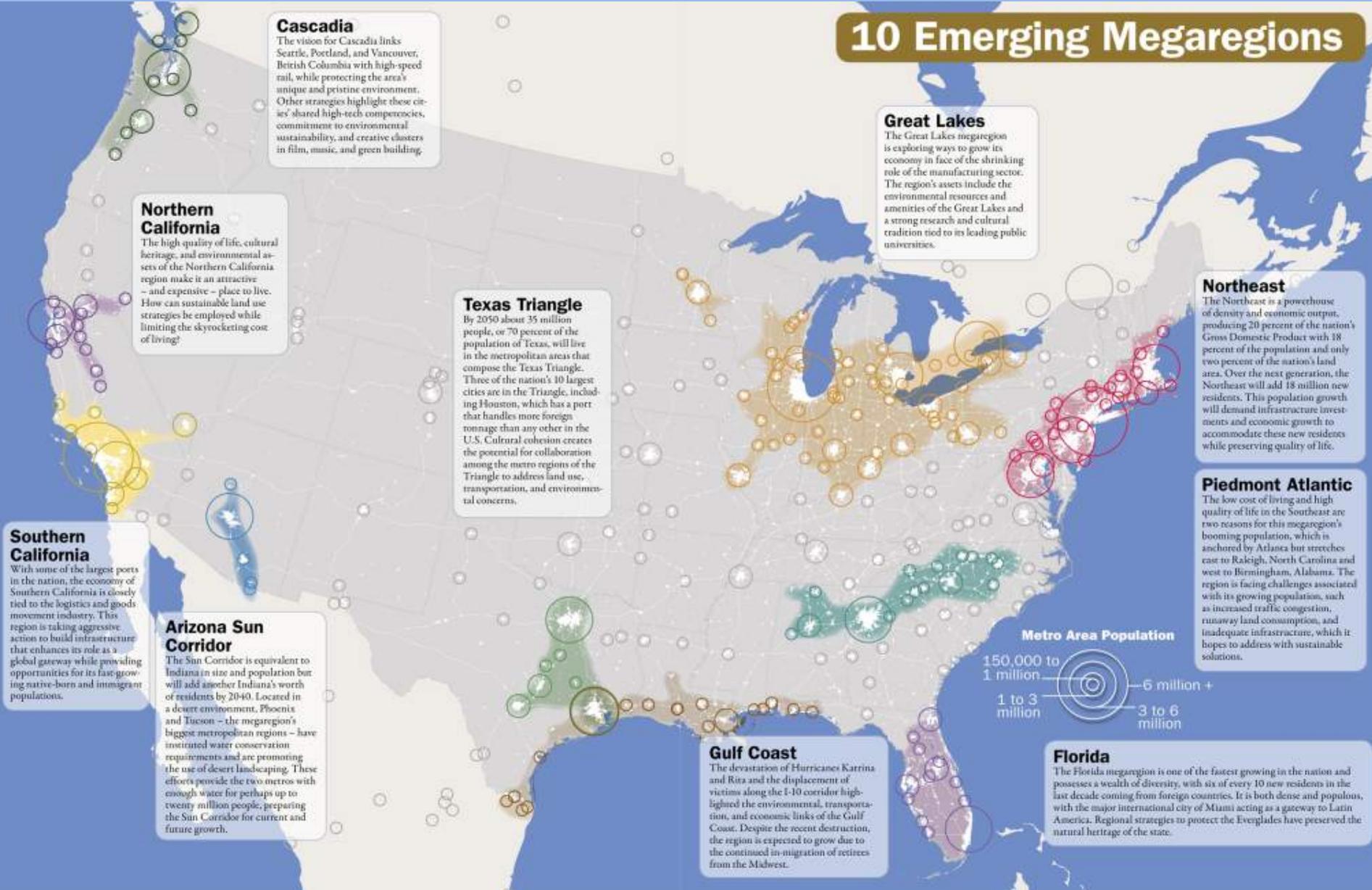
January 14, 2013

# Major Metros Are Fundamental Drivers of Prosperity



# Many Major Metros are Also Freight Gateways

## 10 Emerging Megaregions



**Cascadia**  
 The vision for Cascadia links Seattle, Portland, and Vancouver, British Columbia with high-speed rail, while protecting the area's unique and pristine environment. Other strategies highlight these cities' shared high-tech competencies, commitment to environmental sustainability, and creative clusters in film, music, and green building.

**Northern California**  
 The high quality of life, cultural heritage, and environmental assets of the Northern California region make it an attractive – and expensive – place to live. How can sustainable land use strategies be employed while limiting the skyrocketing cost of living?

**Southern California**  
 With some of the largest ports in the nation, the economy of Southern California is closely tied to the logistics and goods movement industry. This region is taking aggressive action to build infrastructure that enhances its role as a global gateway while providing opportunities for its fast-growing native-born and immigrant populations.

**Arizona Sun Corridor**  
 The Sun Corridor is equivalent to Indiana in size and population but will add another Indiana's worth of residents by 2040. Located in a desert environment, Phoenix and Tucson – the megaregion's biggest metropolitan regions – have instituted water conservation requirements and are promoting the use of desert landscaping. These efforts provide the two metros with enough water for perhaps up to twenty million people, preparing the Sun Corridor for current and future growth.

**Texas Triangle**  
 By 2050 about 35 million people, or 70 percent of the population of Texas, will live in the metropolitan areas that compose the Texas Triangle. Three of the nation's 10 largest cities are in the Triangle, including Houston, which has a port that handles more foreign tonnage than any other in the U.S. Cultural cohesion creates the potential for collaboration among the metro regions of the Triangle to address land use, transportation, and environmental concerns.

**Great Lakes**  
 The Great Lakes megaregion is exploring ways to grow its economy in face of the shrinking role of the manufacturing sector. The region's assets include the environmental resources and amenities of the Great Lakes and a strong research and cultural tradition tied to its leading public universities.

**Northeast**  
 The Northeast is a powerhouse of density and economic output, producing 20 percent of the nation's Gross Domestic Product with 18 percent of the population and only two percent of the nation's land area. Over the next generation, the Northeast will add 18 million new residents. This population growth will demand infrastructure investments and economic growth to accommodate these new residents while preserving quality of life.

**Piedmont Atlantic**  
 The low cost of living and high quality of life in the Southeast are two reasons for this megaregion's booming population, which is anchored by Atlanta but stretches east to Raleigh, North Carolina and west to Birmingham, Alabama. The region is facing challenges associated with its growing population, such as increased traffic congestion, runaway land consumption, and inadequate infrastructure, which it hopes to address with sustainable solutions.

**Gulf Coast**  
 The devastation of Hurricanes Katrina and Rita and the displacement of victims along the I-10 corridor highlighted the environmental, transportation, and economic links of the Gulf Coast. Despite the recent destruction, the region is expected to grow due to the continued in-migration of retirees from the Midwest.

**Florida**  
 The Florida megaregion is one of the fastest growing in the nation and possesses a wealth of diversity, with six of every 10 new residents in the last decade coming from foreign countries. It is both dense and populous, with the major international city of Miami acting as a gateway to Latin America. Regional strategies to protect the Everglades have preserved the natural heritage of the state.



# Role of MPOs in Freight

- Freight produces costs and benefits that are simultaneously local, regional, national and international
  - Utilizes the regional transportation system, adding to congestion and degrading infrastructure
  - Supports the regional economy, providing jobs and goods to local residents
  - Affects the regional and local environment, particularly diesel emissions

# But What Role Can MPOs Play?

- MPOs do not own or operate any of the goods movement infrastructure
- Degree of ongoing engagement with freight stakeholders varies significantly
- Effectiveness of these efforts depends on active participation from private sector and ongoing agency commitment
- Mismatch between long-range planning and short-term business needs



# Bay Area Experience

- 2004: first Regional Goods Movement Study completed
  - Freight Advisory Committee active during Plan development, including business community, ports and railroads
  - Purpose was to provide local decision-makers with information on the region's freight network and economic impact and prepare a common freight advocacy platform
- 2006: CA voters approved an infrastructure bond including \$2 billion for the Trade Corridor Improvement Fund (TCIF) for high priority goods movement infrastructure



# TCIF Program

- State had a freight plan in place that the program could build on, which identified key freight regions and corridors, high priority projects, and basic freight data
- MPOs from the four key freight regions – Bay Area, Central Valley, Los Angeles/Inland Empire and San Diego – played active roles in shaping the program and prioritizing projects
- Required a 50 percent match, so project sponsors had significant skin in the game



# TCIF: Northern California Program

- Northern California program of projects included the Bay Area and Central Valley, building off of the key freight corridors connecting the regions
- Included port, rail, highway and grade separation projects
- Northern California proposal secured 33 percent of statewide funding, including:
  - Projects serving the Port of Oakland as well as smaller ports (West Sacramento and Stockton)
  - Class 1 rail and short haul rail projects
  - Roadway improvements providing access to industrial land uses and port facilities
  - Grade crossing on local street affected by rail congestion

# TCIF: Lessons Learned

- Stakeholders actively engage when funding is on the table
- MPOs can play a key role in prioritizing projects and forming partnerships with adjacent jurisdictions
- Statewide freight plan already in place helped focus efforts and provide common framework
- Bond package also included \$1 billion program for emission-reduction programs related to goods movement managed by the Air Resources Board

# Freight and Land Use

- SB 375 requires MPOs in California to:
  - adopt integrated transportation and land use plans
  - meet specific greenhouse gas reduction targets
- Focusing future growth around existing communities and infrastructure
  - Often conflict with goods movement infrastructure and industrial land uses
  - Air quality and congestion considerations



# Future Efforts

- MAP-21
  - State freight plans and consistent performance metrics are a start
  - Federal freight strategy *and* funding program are critical to keeping stakeholders engaged and making the various plans meaningful
- Public and private benefits
  - Public investment in private infrastructure can result in mutual benefits
  - Reduced traffic congestion, additional passenger rail service, to name a few
- Freight data availability is a consistent challenge
  - Truck counts and private sector rail moves are not well-represented in many regional models
  - Inter-regional freight moves are poorly captured in regional models

An aerial view of the Golden Gate Bridge, showing the suspension towers and the roadway. The image is overlaid with a semi-transparent blue filter. The website address [www.mtc.ca.gov](http://www.mtc.ca.gov) is displayed in large, bold, red text with a white outline across the center of the bridge.

[www.mtc.ca.gov](http://www.mtc.ca.gov)