

Catherine L. Ross, Ph.D.

Director, Center for Quality Growth and
Regional Development

Deputy Director National Center for
Transportation Productivity and Management

September 3, 2014

Drivers of Change Influencing Transport Needs

- Population
- Globalization
- Energy
- Federal Policy
- Environment
- Technological Innovation
- Economic Growth

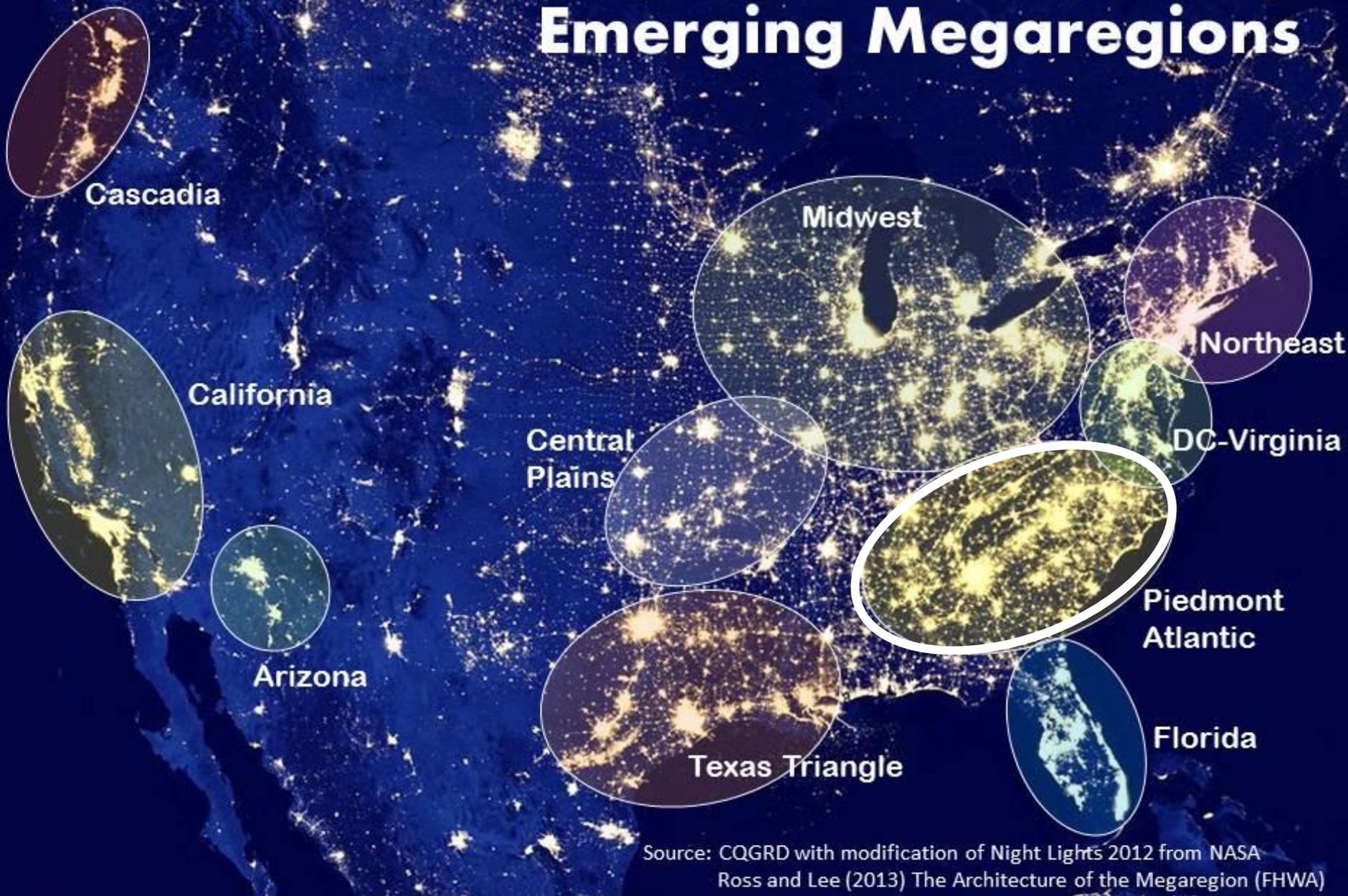
Spatial Context in which Drivers of Change Operate

MEGAREGIONS

PIEDMONT
ATLANTIC
MEGALOPOLIS



Emerging Megaregions



Source: CQGRD with modification of Night Lights 2012 from NASA
Ross and Lee (2013) The Architecture of the Megaregion (FHWA)



**Georgia
Tech**

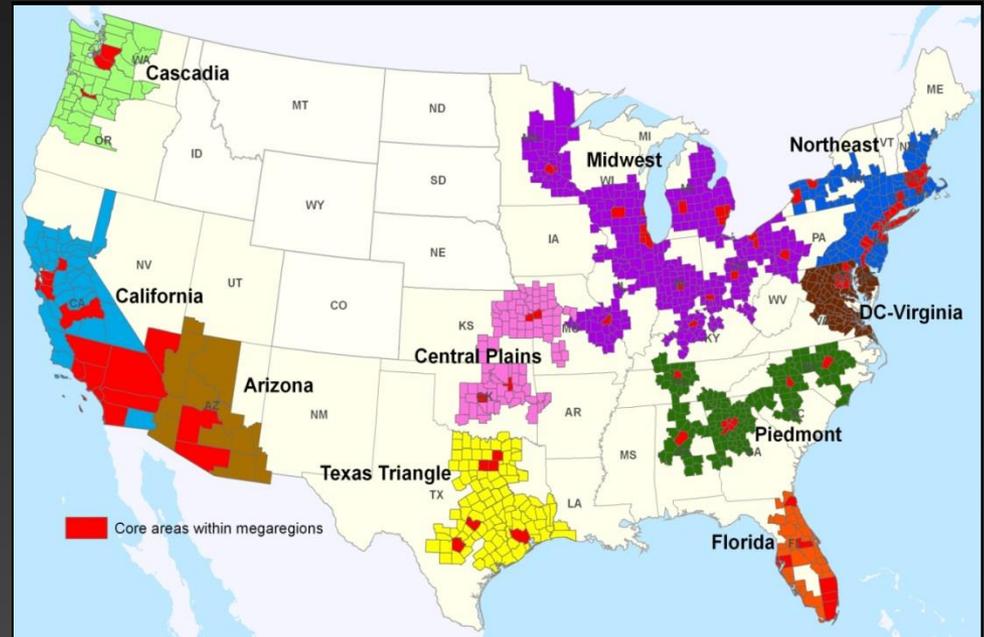
**Center for Quality Growth
and Regional Development**
College of Architecture



Center for Quality Growth and Regional Development

Why Megaregions Matter

	MEGAREGION	NON-MEGAREGION
Area	29.6%	70.4%
Population (2008)	76.54%	23.46%
Employment (2008)	76.98%	23.02%
GRP (2008)	81.47%	18.53%
Fortune 500 companies revenue (2008)	92.07%	7.93%
Patents (2008)	86.77%	13.23%



Megaregions-scale analysis captures relevant economic and demographic phenomena

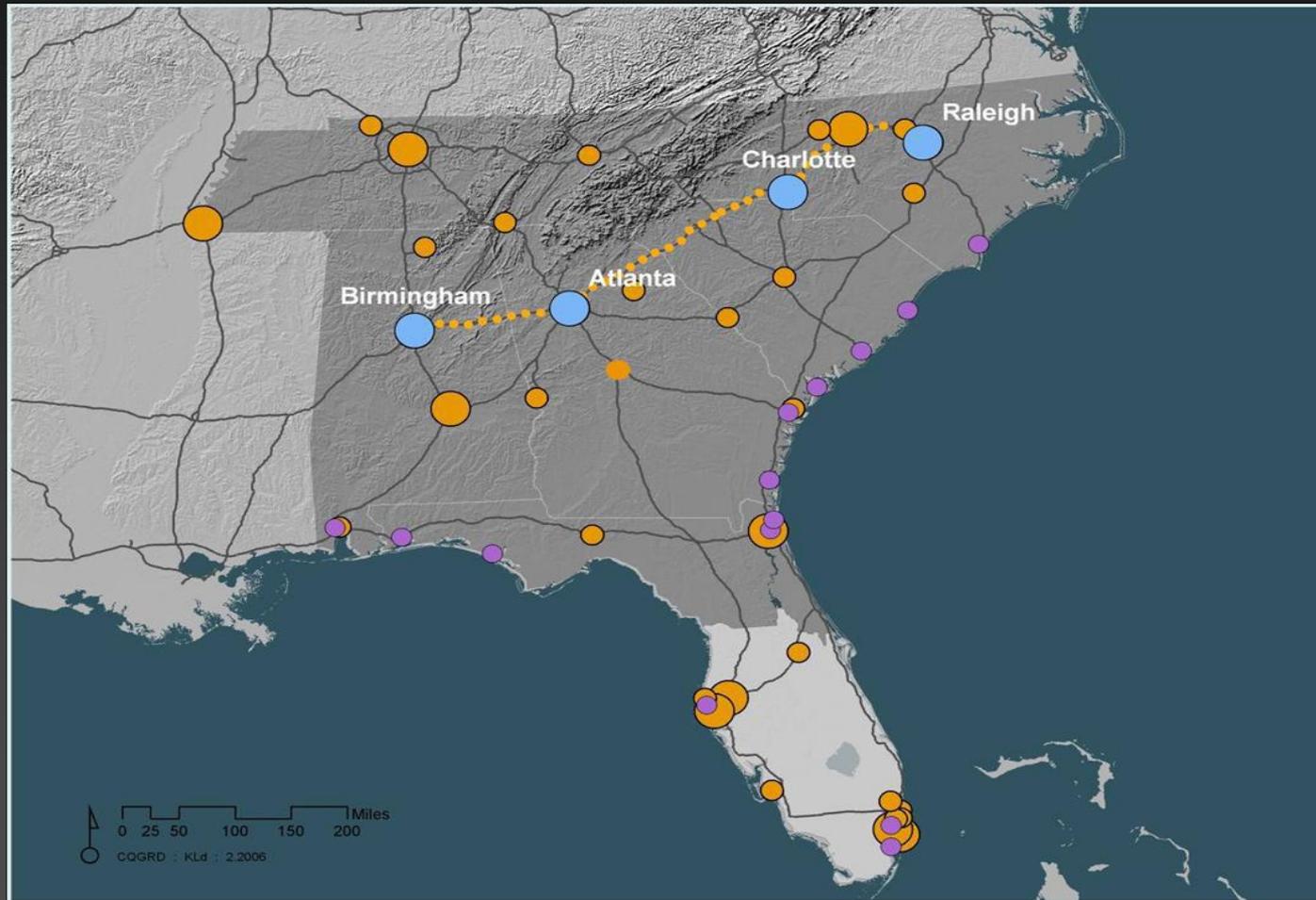
10 megaregions account for 30% of national territory and 75% of the nation's population and employment.

Overview of Piedmont Atlantic Megaregion

- Megaregion stretching from Birmingham to Raleigh.
- Fast growing population, development, and business.
- Definition by Contant, Ross, et al. (2005) accounts for—
 - Population
 - Development patterns
 - Geographic characteristics
 - Passenger and freight movement
 - Infrastructure linkages
 - Ecologically sensitive areas



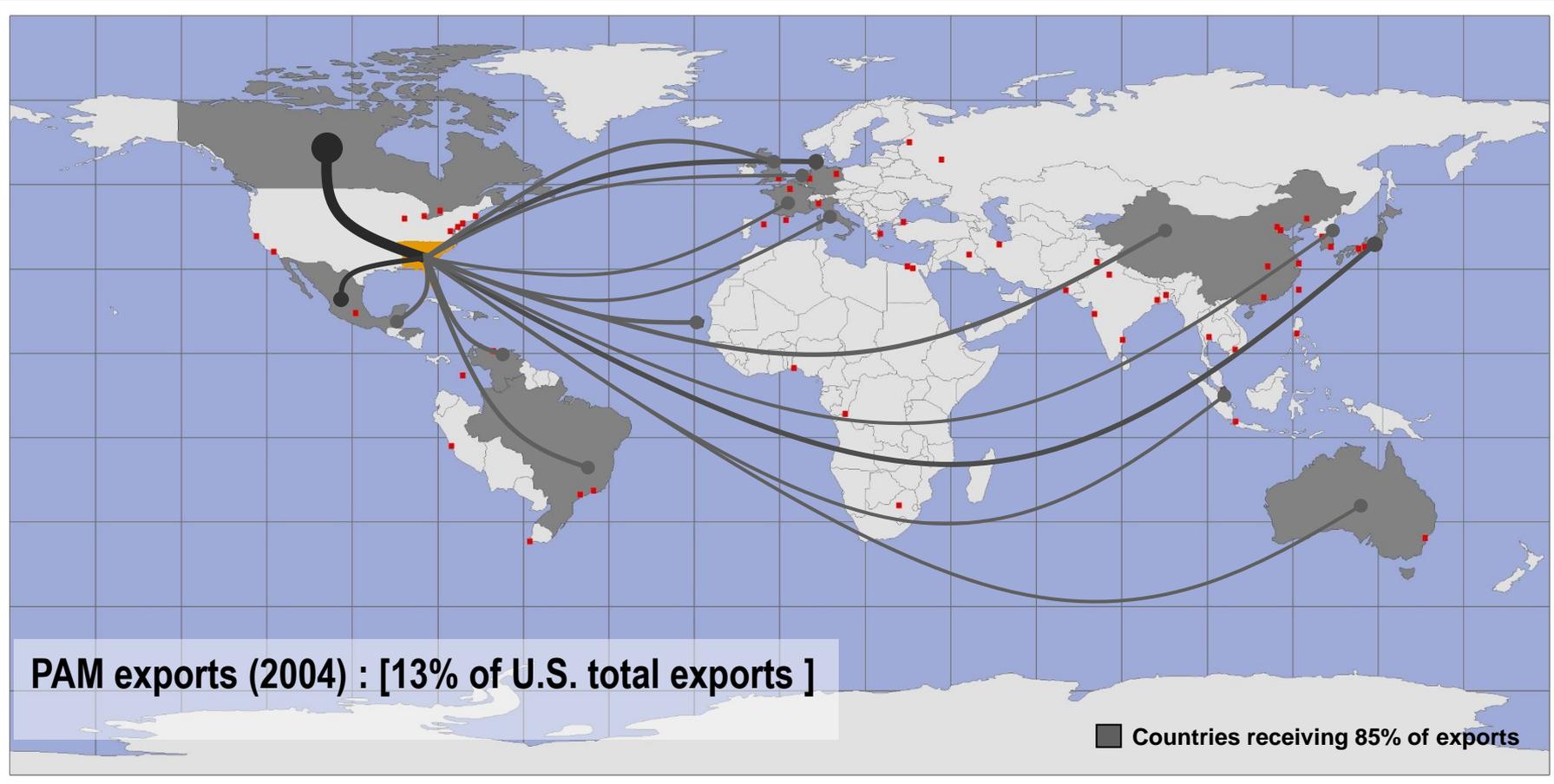
Leading Centers of the Piedmont Atlantic Megaregion



Implications of Megaregions on Transportation Needs

- How investment decisions are made?
 - New(Megaregion) vs. Old (City)

Competitiveness in a global economy? New (Multijurisdictional connective) vs. Old (Single geographies)



PAM exports goods to more than 80 countries

Implications of Megaregions on Transportation Needs

- Diversity of transportation modes?
 - New (Multi Modal/Pedestrian ways) vs. Old (Single mode)

Implications of Megaregions on Transportation Needs

- Sustainable development?
 - New (Economies of scale) vs. Old(Less efficient resource allocation)
- Leading industries:
 - Wholesale
 - Management
 - Administrative and waste services
 - Construction
 - Transportation and warehousing

Implications of Megaregions on Transportation Needs

- Sustainable development?
 - New (Economies of scale) vs. Old(Less efficient resource allocation)

- Freight transportation is essential to megaregion economic strengths

Megaregions

- **Cities are churning in response to the demands of the global economy.**
- **21st-century infrastructure is called on to support individual, local, regional, and global mobility needs.**