



**THE CENTER FOR TRANSPORTATION RESEARCH  
THE UNIVERSITY OF TEXAS AT AUSTIN**

# TXDOT RESEARCH PROJECT 0-6627

## **MEGA-REGION FREIGHT ISSUES IN TEXAS: A SYNOPSIS**

ONE YEAR STUDY

# Research Team

- CTR
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  - Dr. Ming Zhang
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  - Dan Seedah
  - Donovan Johnson
- TSU
  - Dr. Carol Lewis
  - Gwendolyn Goodwin

# Research Objectives

- Determine the benefits and costs of adopting megaregional planning in Texas to meet strategic transportation goals.
- Determine systems of possible megaregional governance in Texas.
- Determine which delineations of megaregions are the most appropriate to meet specific transportation goals in Texas.

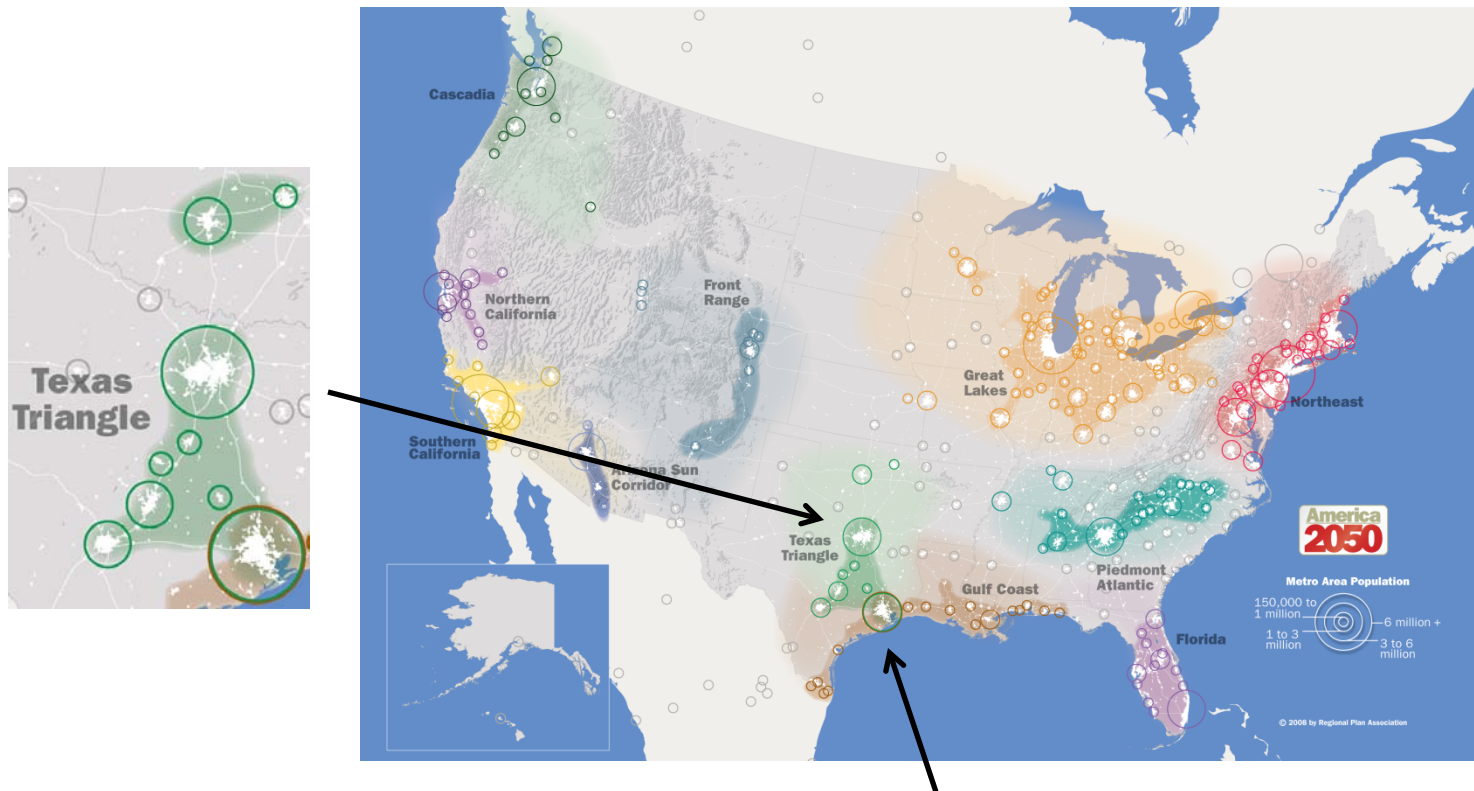
# Work Plan

- Task 1 – Literature Review
- Task 2 – Literature Review Workshop
- Task 3 – Literature Workshop Recommendations
- Task 4 – National and International Scanning Assessment
  - 4(a) National Scanning
  - 4(b) International Scanning
- Task 5 – Private Sector and Regional Organizations Review
- Task 6 – Legal and Planning Issue Review
- Task 7 – Transportation Scenario Planning
  - 7(a) Economic Linkages
  - 7(b) International Trade Corridors
  - 7(c) Funding Sources and Distribution
- Task 8 – Second Workshop
- Task 9 – Final Reports

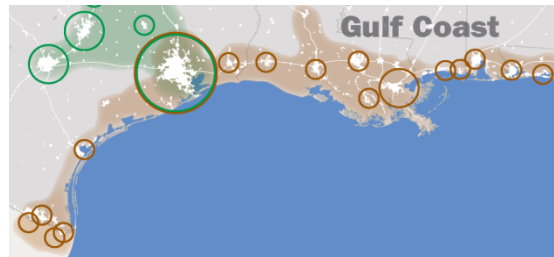
# Task 1 – Literature Review

- Literature Review will include recent megaregional identification and planning in the U.S. and other continents such as Asia, Europe, and South America. Topics will include:
  - History and development of the megaregion concept
  - Differences between megaregional planning, regional planning, and megacity planning
  - Definitions of megaregions used by planning agencies and other parties
  - Review of all currently outlined megaregions in the world
  - The relationship of megaregional planning to transportation planning, and how transportation issues are addressed within this scope
  - Factors that tie megaregions together
    - Economics
    - Governance and funding
    - Land use
    - Environmental sustainability
  - Incorporation of freight issues into megaregional planning

# Megaregional Maps: America 2050

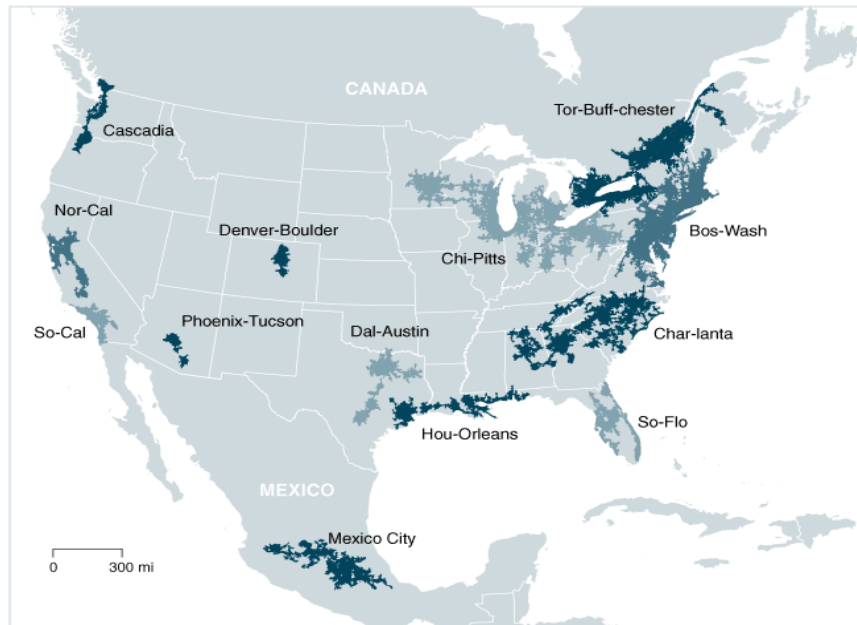


- America 2050's definition of megaregions shows Texas containing elements of two separate megaregions.

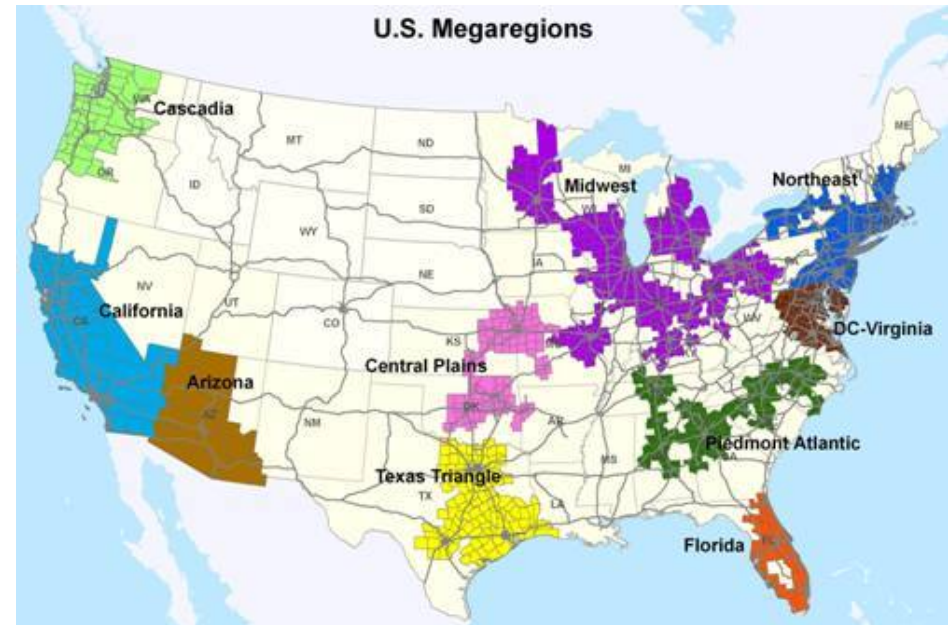


# Scholarly Megaregional Maps

Richard Florida, University of Toronto



Catherine Ross, Georgia Institute of Technology



- Megaregion definitions are still an evolving process, and scholars have differing classification criteria.



# Task 2 – Literature Review Workshop

- Completed in three months and disseminated to PMC
- Webinar format, participants should include:
  - MPO staffers from five large Texas metropolitan regions
  - Central Texas, Alamo and Camino Real, Regional Mobility Authority staffers
  - Tollway Authorities
    - Harris County Toll Road Authority
    - North Texas Tollway Authority
  - Industry representatives from trucking, rail, air, and port modes
  - Other selected invitees with involvement in regional planning.  
Examples include:
    - America 2050
    - Envision Central Texas
    - Greater Houston Partnership
    - Houston Tomorrow
    - NASCO
    - Texas Triangle Organization
    - Vision DFW

## Task 3 – Literature Workshop Recommendations

- Intent is to follow up on areas of interest identified by TxDOT workshop panel
- Preparation of plans for any future workshops or interactions with stakeholders TxDOT deems necessary
- Recommendations to possibly substitute current tasks with ones deemed more appropriate for TxDOT's needs

# Task 4 – National and International Scanning Assessment

- Objective is to provide insight on what Texas competitors and peers are pursuing in megaregional study.
- 4(a) National Scanning
  - Review of U.S. megaregional initiatives.
  - Review of local collaborative efforts in other megaregions.
  - Used to inform TxDOT on how other areas are using megaregional planning to meet their strategic objectives.
  - Interviews with representatives from these entities.
- 4(b) International Scanning
  - Review of international megaregional initiatives through primarily academic research.
  - Used to examine how TxDOT may take actions to improve Texas' competitiveness.
  - Review of European, Asia, and South American policies and activities.

# Task 5 – Private Sector and Regional Organizations Review

- Examine how the private sector is analyzing and positioning capabilities and investments based on megaregional concepts
- Examine how other regional and corridor organizations are responding to the challenges of megaregional planning.
- The above goals will be achieved by interviewing stakeholders in the following groups:
  - Ports
  - Class I Railroads
  - Air freight groups
  - Trucking and trade groups
  - Major regional retailers
  - Organizations involved with freight industry

# Task 6 – Legal and Planning Issue Review

- Review of how current federal, state, and local legal and planning frameworks may need to be modified to accomplish megaregional planning. This can be accomplished by:
  - Reviewing jurisdictional and institutional issues that currently exist for federal, state, and local planning in the U.S.
  - Assessing development of new planning tools that are taking place that can provide a framework for sharing a megaregional vision.
  - Proposing recommendations that would be required in federal and state laws to accomplish megaregional planning.
  - Reviewing financing options that may need to be altered or amended in order to accommodate megaregional planning.

# Task 7 – Transportation Scenario Planning

- At least three definitions of megaregional planning involving Texas.
  - Texas Triangle (Houston, Dallas, San Antonio-Austin)
  - Gulf Coast Corridor (petrochemical based running from Corpus Christi area to southeast Louisiana)
  - IH-35 Corridor (NAFTA corridor running from Laredo to Dallas-Fort Worth and points north)
  - Others (Gulf of Mexico as the nexus of a megaregion?)
- Review the three-plus definitions and find which are most appropriate for transportation planning.
- 7(a) Economic Linkages
  - Determination of the types of linkages present in the megaregion.
  - Determination of opportunities for economic growth, via:
    - Current and future employment generators
    - Types of commodities transported
    - Current and future modes of transport
  - Recommendations on how future intercity infrastructural development should be pursued.

# Task 7 – Transportation Scenario Planning (continued)

- 7(b) International Trade Corridors
  - Determine how infrastructural development can enhance international trade through Texas.
- 7(c) Funding Sources and Distribution
  - Review and provide recommendations concerning funding requirements for current and future metropolitan planning by TxDOT and MPOs.
  - Identify investment strategy options for the Texas megaregion cities and funding sources for highway, rail, and other intermodal infrastructural improvements.

# Task 8 – Second Workshop

- Presentation of the findings of the team on the issues identified as those of interest to TxDOT and invited attendees.
- Allow for responses from attendees and recommendations for the final reports.
- Part of the workshop would be team members providing findings, while the other part would consist of the PMC identifying specific areas worthy of further investigation.



# Task 9 – Final Reports

- Delivery of a research report that documents the research performed and summarizes output, findings, and recommendations.
- Structure determined by the PMC, and tailored to address issues and interests of TxDOT.
- Will include a project summary report detailing the research effort.

# Progress on Tasks Underway

- Task 1
  - Complete
    - Review of the history and development of megaregional study
    - First technical memorandum detailing results
  - Underway
    - Review of differences in definitions of megaregions
    - Review of world megaregions
  - Future
    - Review of connecting criteria between megaregions
    - Review of relationship between megaregions and freight and passenger transportation

# Schedule of Research Activities

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