

Regional Rail Planning

Potential Southeast and South Central US Applications

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Southern Rail Commission Meeting

New Orleans Regional Planning Commission

September 18, 2014



U.S. Department of Transportation
Federal Railroad Administration

Agenda

FRA Planning Framework

CONNECT Tool

Southeast/South Central Discussion

Regional Planning Opportunity



National Rail Planning

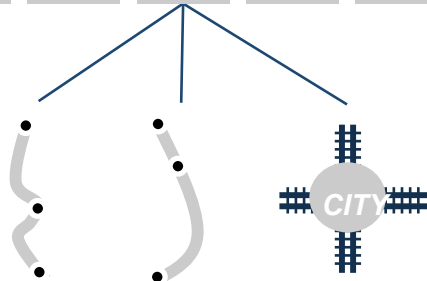
National Planning Parameters

STANDARDIZED CRITERIA, TOOLS, & GUIDANCE

“Tier 0”
Regional Rail Plans



Tier I
Corridors & Terminal Areas

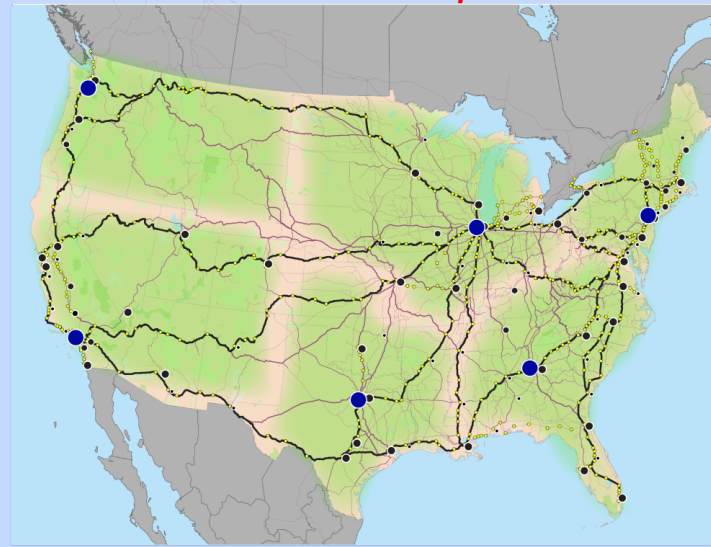


Tier II
Projects



Contents	<ul style="list-style-type: none"> • Criteria for federal investment • Models, methodologies, & guidance
NEPA	Guidance for project sponsors
FRA Role	Establish investment policies and develop models/guidance

What does the map look like?

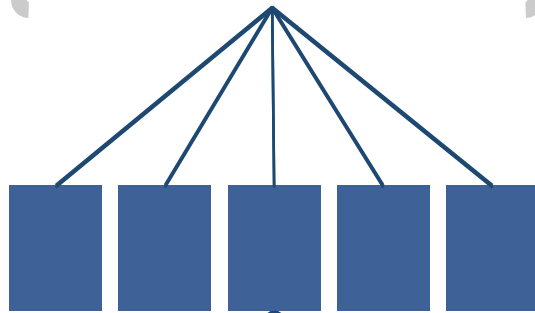


Regional Planning

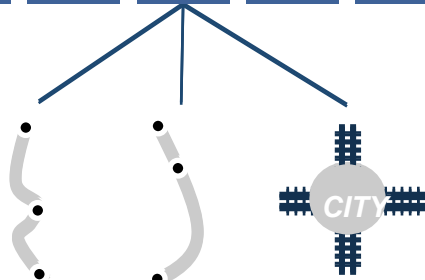
National Planning Parameters

STANDARDIZED CRITERIA, TOOLS, & GUIDANCE

“Tier 0” Regional Rail Plans



Tier I Corridors & Terminal Areas

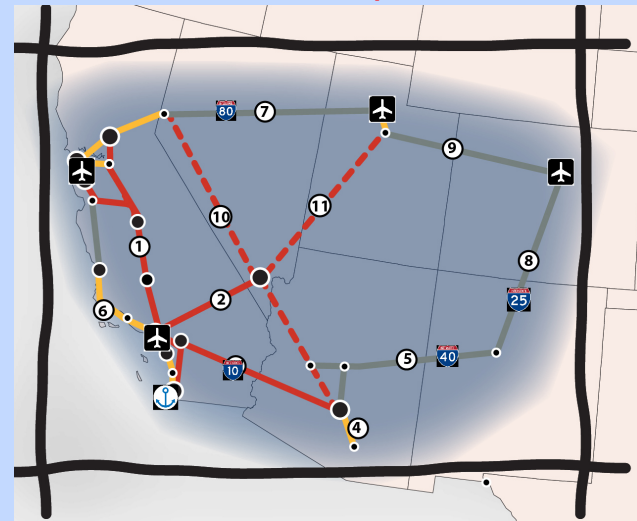


Tier II Projects

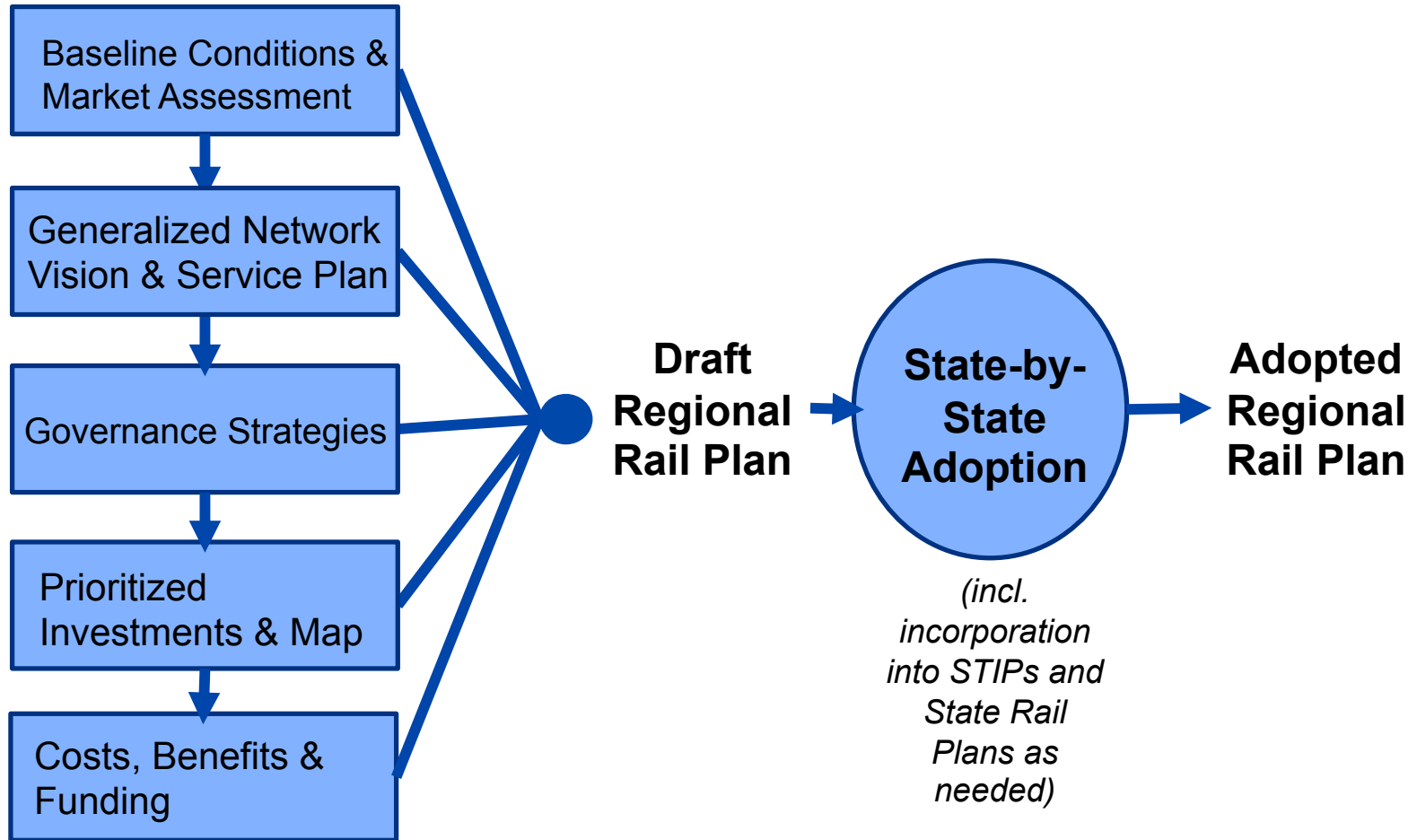


Contents	<ul style="list-style-type: none"> • Regional network vision • Regional service plan • Institutional/financial plans
NEPA	n/a
FRA Role	<ul style="list-style-type: none"> • Provide toolkits and best practices • Facilitate cross-border institutional relationships • Fund projects consistent with adopted regional plans

What does the map look like?



Elements of a Regional Rail Plan

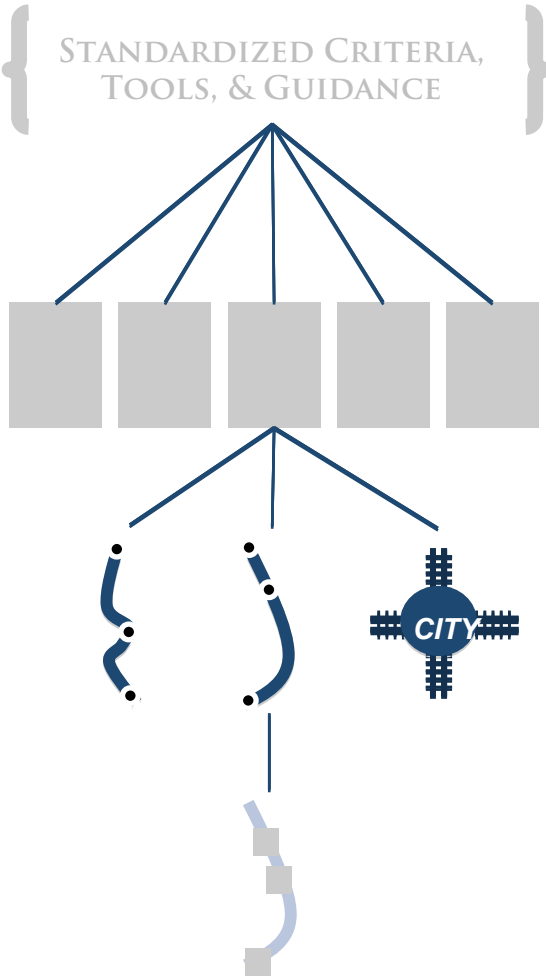


Corridor Planning (Tier I)

National Planning Parameters

STANDARDIZED CRITERIA, TOOLS, & GUIDANCE

“Tier 0” Regional Rail Plans

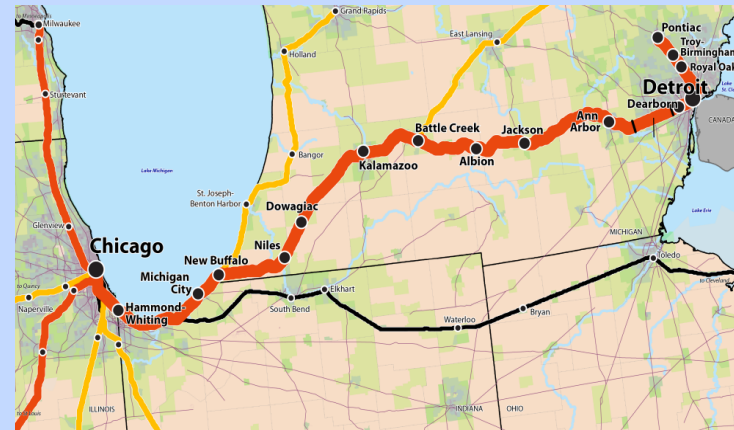


Tier I Corridors & Terminal Areas

Tier II Projects

Contents	<ul style="list-style-type: none"> • Corridor alignments • Terminal area plans • Detailed service plans
NEPA	Service-level (Tier I)
FRA Role	<ul style="list-style-type: none"> • Provide service development planning and NEPA guidance • Review/approve grant or loan deliverables

What does the map look like?



Project-level Planning (Tier II)

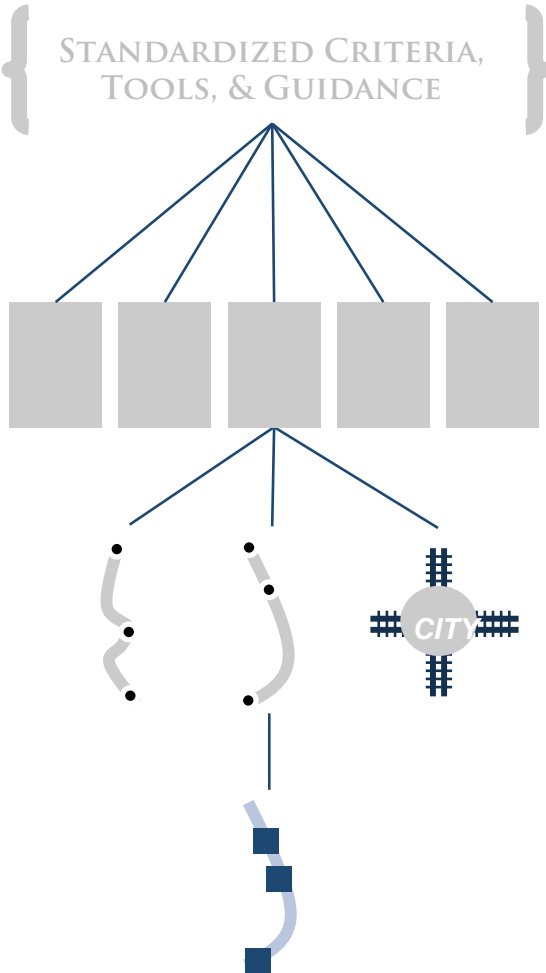
National Planning Parameters

STANDARDIZED CRITERIA, TOOLS, & GUIDANCE

“Tier 0” Regional Rail Plans

Tier I Corridors & Terminal Areas

Tier II Projects



Contents	<ul style="list-style-type: none"> • Project-level engineering • Construction/delivery plans • Project management plans
NEPA	Project-level (Tier II)
FRA Role	<ul style="list-style-type: none"> • Provide project delivery guidance • Review/approve grant or loan deliverables

What does the map look like?



State Rail Plans

Key components of a comprehensive, multi-modal planning approach that define rail's role in a broader transportation network and guide public investment in the transportation network

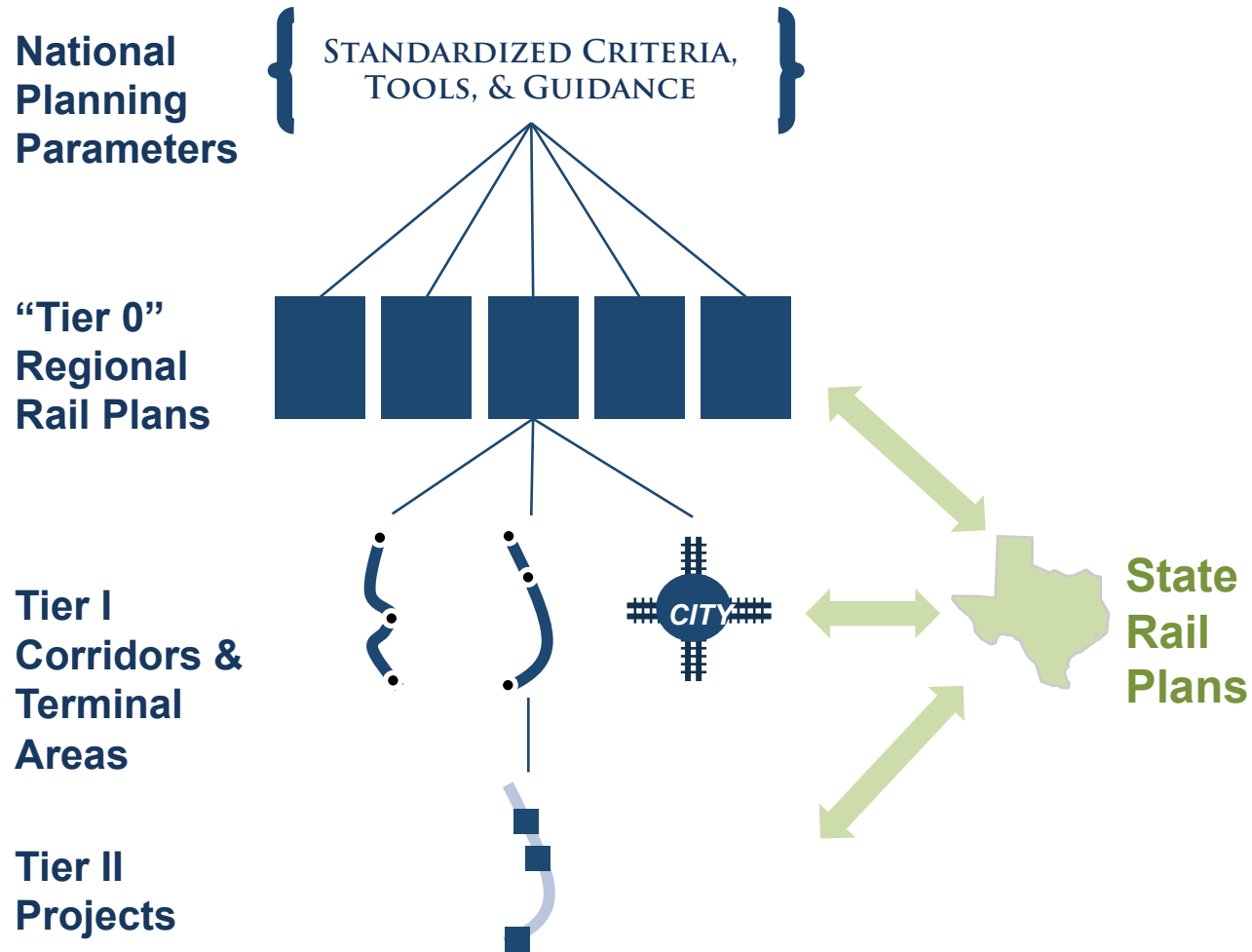
Reflect States' visions for passenger and freight rail and harmonize individual studies, plans and projects

Opportunity to show the full extent of State's rail programs – including costs and benefits

Signal to lawmakers and FRA about State's goals



State Rail Plans Within the FRA Planning Framework



CONNECT Tool

- What is CONNECT?
- When to use CONNECT
- Limitations
- Inputs/Outputs (Cost and Demand Data)
- Previous CONNECT Applications
- Southeast/South Central Discussion



Overview of CONNECT Tool

What is CONNECT?

- **CONceptual NETwork Connections Tool**
- Sketch planning tool for estimating performance of passenger rail corridors and networks
- Estimates order of magnitude ridership, revenue, and costs
- Intended for use during initial stages of a planning process, primarily in a regional network context
- Broad market based (MSA – MSA) level of detail

Provides Data not Answers

Overview of CONNECT Tool

Features of CONNECT:

- **Excel-based:** Broad-based platform
- **User-defined:** Network customized by user
- **Fully integrated:** A single action by user runs ridership, revenue, and cost calculations
- **Flexible:** Advanced users can adjust assumptions
- **Complete:** National database
- **Costs and benefits linked:** Evaluates costs associated with achieving higher levels of service and ridership

Provides Data not Answers

Overview of CONNECT Tool

When to use CONNECT:

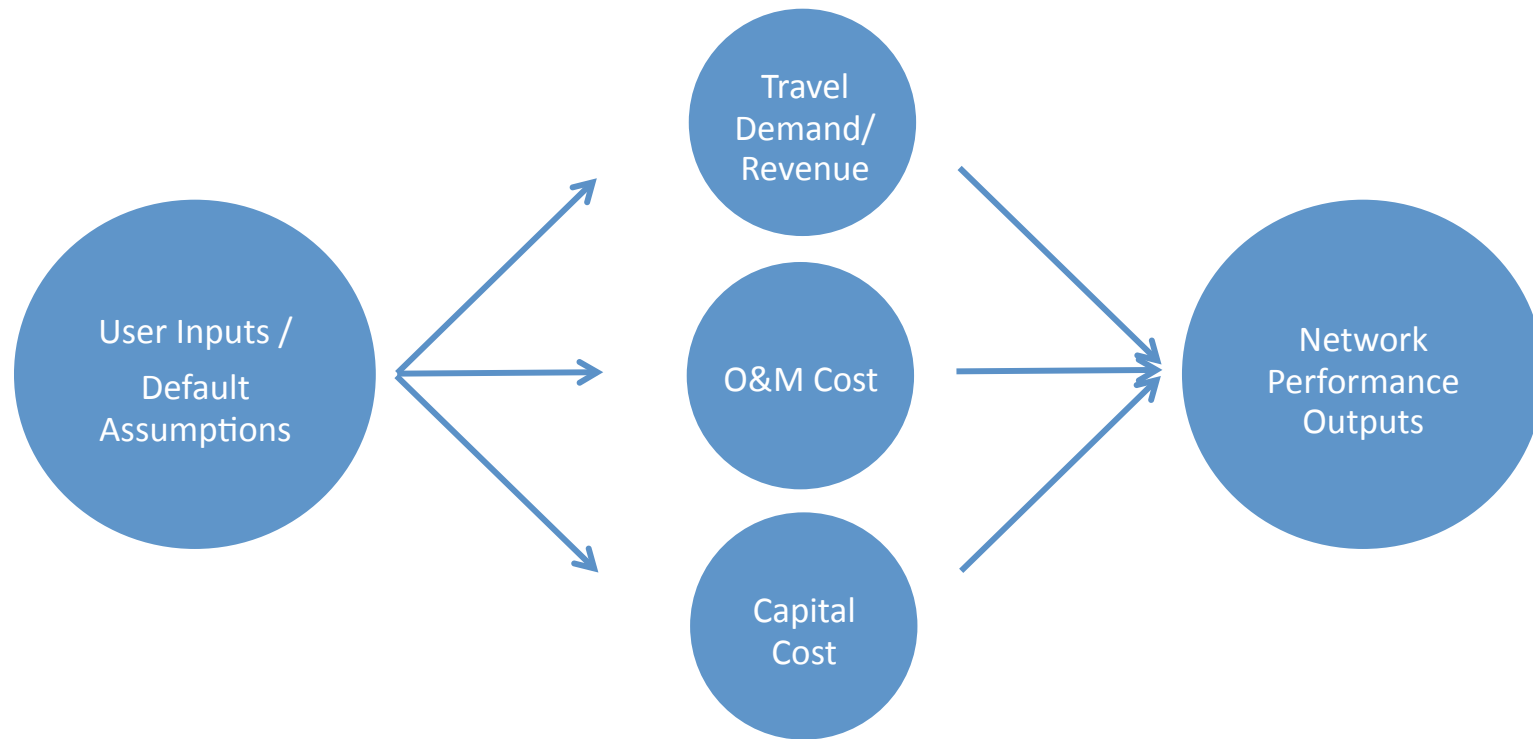
- Provide analytic base to decision making process in early phases of planning
- Provide relative comparisons between corridors and networks
- As coarse screen to identify most compelling visions for further study
- Analyze importance of connecting corridors in the context of a more detailed study
- Estimate existing travel market between metro regions and develop estimates for future travel

Overview of CONNECT Tool

Limitations of CONNECT:

- Not a substitute for detailed corridor and network planning
- Not a corridor ridership tool
- Not GIS enabled – market based analysis limits ability to account for station locations, alternative alignments, which may have large impact on ridership and costs
- Intercity markets only – will miss short distance trips (less than 50 miles) and commute trips
- Costs driven from generalized assumptions, not detailed operating plan

CONNECT Inputs / Outputs



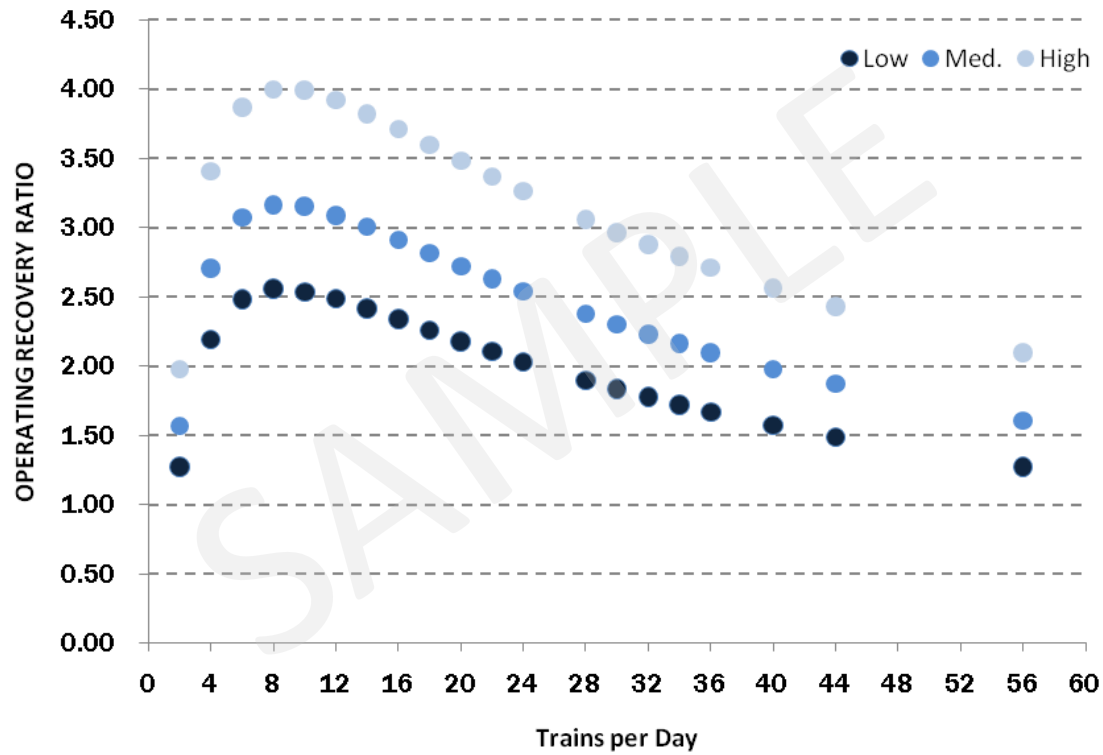
	MSA Pair	Segment	Corridor	Network
Ridership / Revenue	X	X	X	X
O&M Costs			X	X
Capital Costs			X	X

CONNECT Outputs

	Forecast year: 2050		
	CORE EXPRESS		
	Low	Medium	High
Performance of Primary Corridor in Stand-Alone Context			
Frequency - All Stop		16	
Frequency - Limited Stop		28	
Ridership (Annual Passengers)	7,400,000	7,800,000	8,100,000
O&M Cost Recovery Ratio	1.64	2.03	2.58
Initial Capital Investment	\$2,200,000,000	\$2,200,000,000	\$2,200,000,000
Annual Ticket Revenue	\$725,000,000	\$762,000,000	\$797,000,000
Annual O&M Cost	\$309,000,000	\$375,000,000	\$441,000,000
Annual O&M Profit/(Subsidy)	\$284,000,000	\$387,000,000	\$488,000,000
Annual O&M Subsidy/Passenger-Mile	-	-	-
Rail Share of Total Intercity Travel Market	34%	36%	35%
Performance of Primary Corridor in Network Context (Infrastructure Corridor)			
Ridership (Annual Passengers)	13,600,000	16,900,000	20,000,000
O&M Cost Recovery Ratio	1.86	2.40	3.17
Initial Capital Investment	\$2,200,000,000	\$2,200,000,000	\$2,200,000,000
Annual Ticket Revenue	\$818,000,000	\$900,000,000	\$978,000,000
Annual O&M Cost	\$309,000,000	\$375,000,000	\$440,000,000
Annual O&M Profit/(Subsidy)	\$378,000,000	\$525,000,000	\$669,000,000
Annual O&M Subsidy/Passenger-Mile	-	-	-
Rail Share of Total Intercity Travel Market	34%	36%	35%
Performance of Full Network			
Annual Ridership	14,000,000	17,000,000	20,000,000
Annual Ticket Revenue	\$996,000,000	\$1,160,000,000	\$1,317,000,000
Initial Capital Investment	\$3,200,000,000	\$3,200,000,000	\$3,200,000,000
Annual O&M Cost	\$381,000,000	\$466,000,000	\$552,000,000
Max Segment Load Factor			
CORE EXPRESS			
Primary Corridor - Stand-Alone Context		0.40	
Primary Corridor - Network Context (Infrastructure Corridor)		0.77	
Full Network		0.88	

CONNECT Outputs

Regional - Primary Corridor Stand-Alone Context



Previous CONNECT Applications

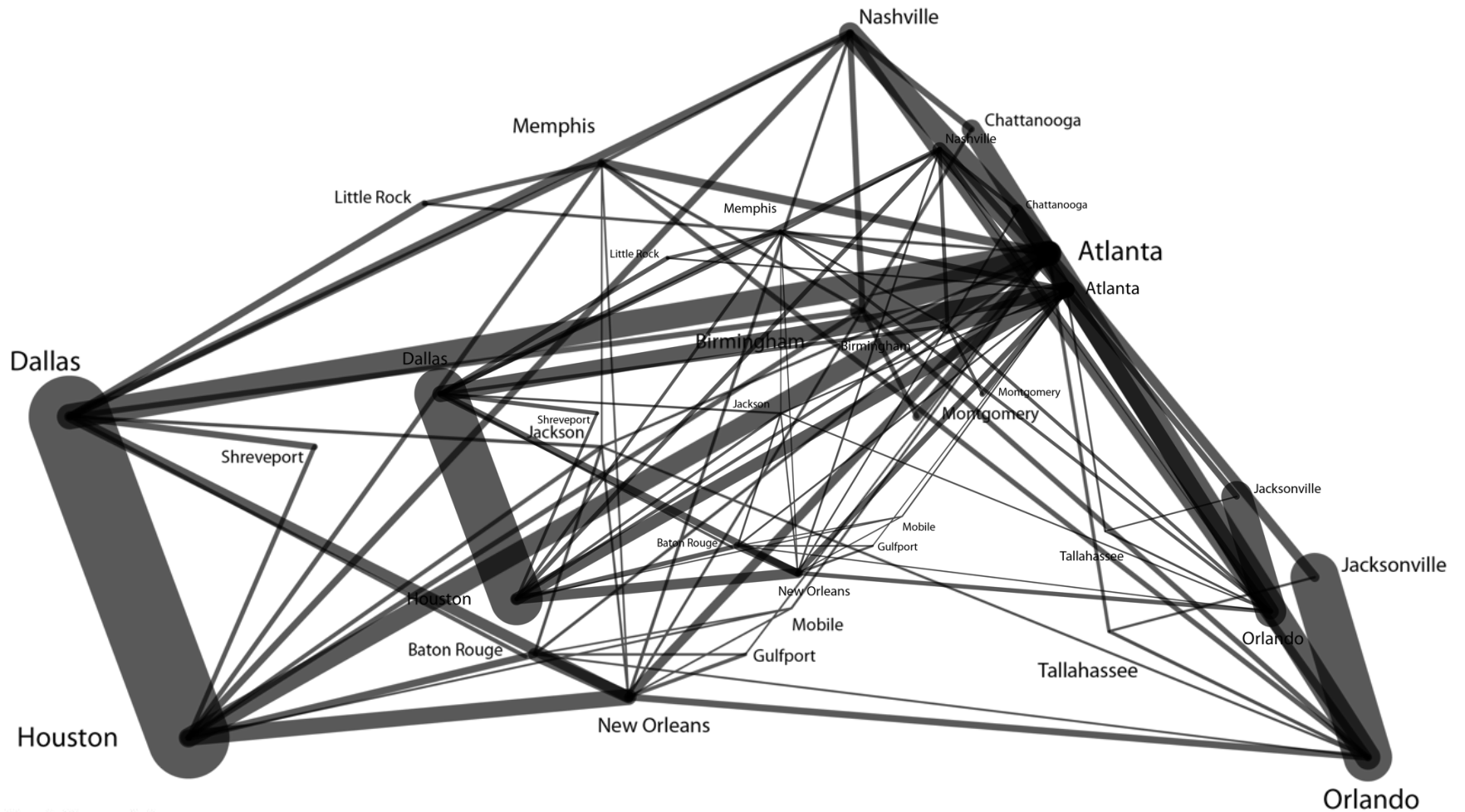
Analyzing Impact of Network Connectivity in Southwest:

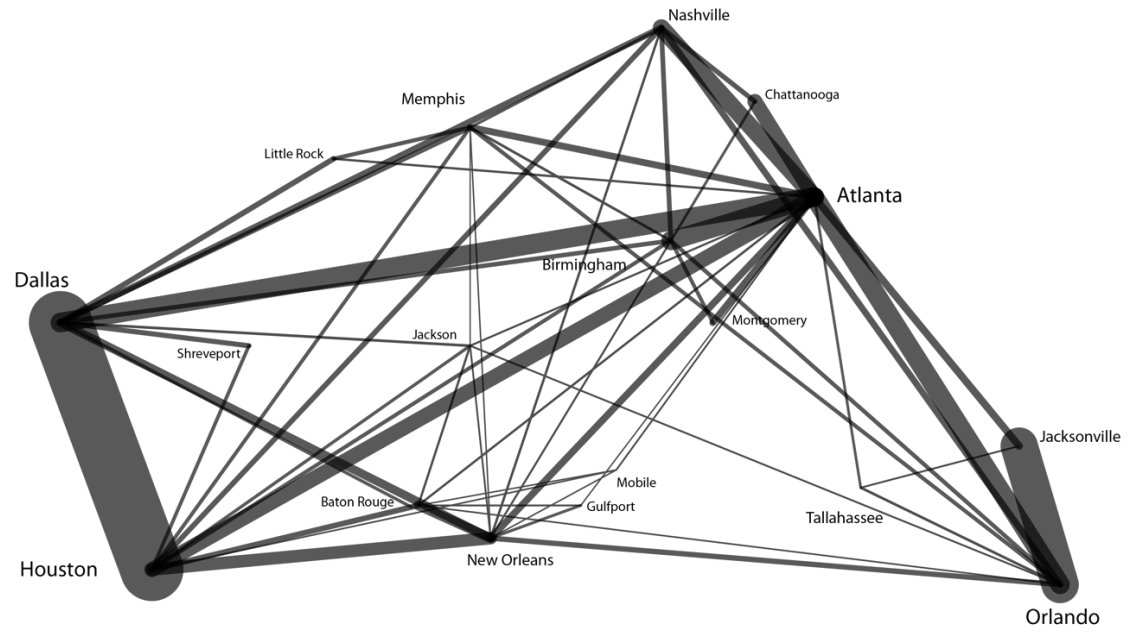
	Markets Served ¹	Annual Ridership ²	Annual Ticket Revenue	O&M Cost	Capital Cost ³
Sum of Stand Alone	87	53 - 61 M	\$5.2 - \$6.0 B	\$3.6 - \$5.2 B	\$180 - \$250 B
Network	197	69 - 84 M	\$7.4 - \$9.3 B	\$3.2 - \$4.7 B	\$150 - \$200 B
Difference	+ 126%	+ 30 - 38%	+ 42 - 55%	- 10 - 11%	- 17 - 20%

All costs in 2010 \$

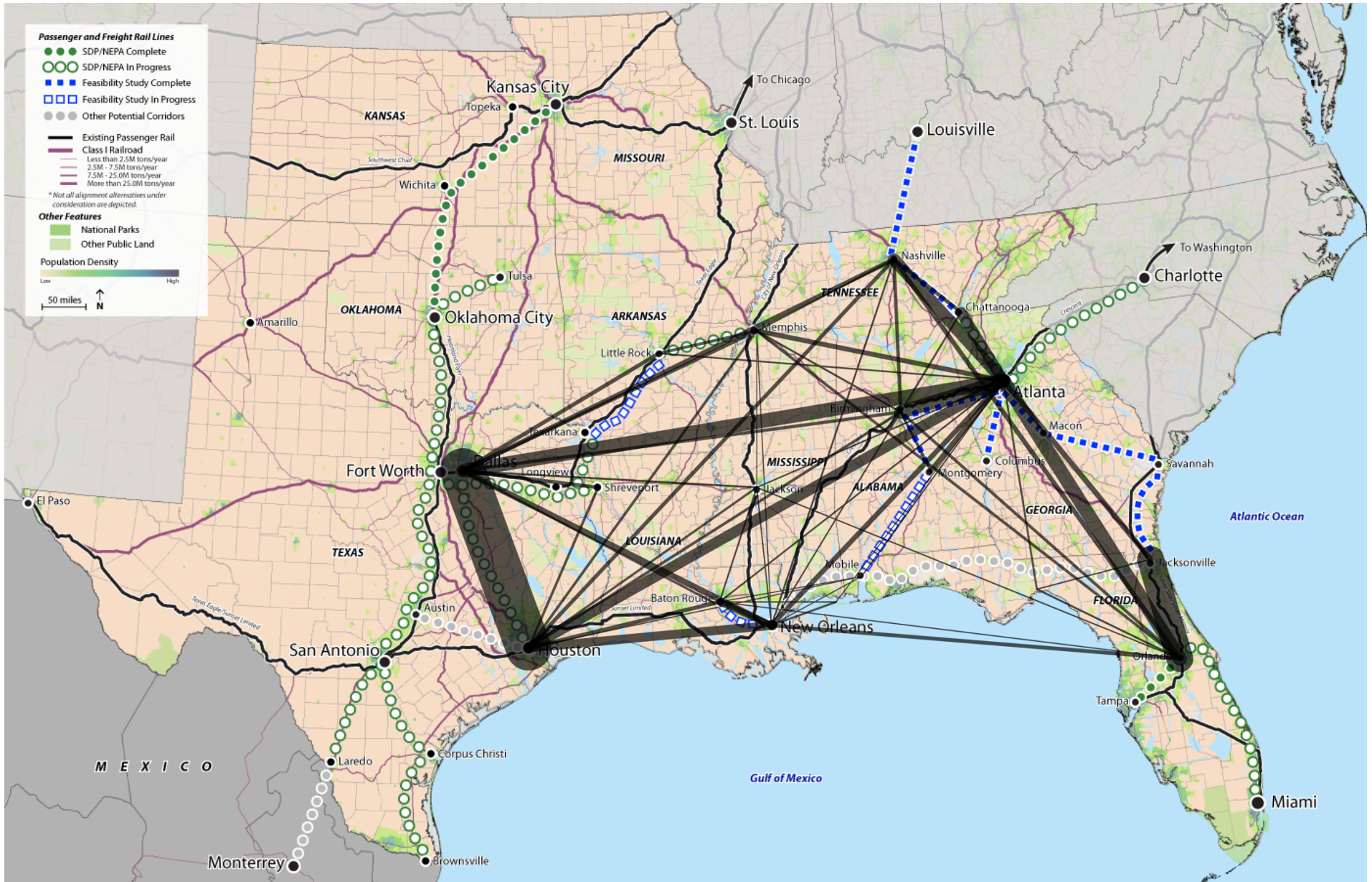
1. Total number of market pairs on network with maximum of one transfer
2. Year 2050 intercity demand
3. Capital figure excludes land costs

CONNECT in the Southeast and South Central Regions





Current Rail Planning Status in South Central and Southeast US



Federally-led Regional Planning Studies

FRA wants to build on the soon-to-be-released Southwest Study and encourages other regions to conduct similar regional efforts in line with the Planning Framework

FRA has funding authority provided under the FY14 Omnibus Appropriations Act (Public Law 113-76)

FRA will be releasing a Call for Statements of Interest and Qualifications in the coming weeks

Note: This is not a grant or funding opportunity for states. It is an opportunity to participate in an FRA-led planning process



Applicants Will Be Asked to Describe:

Rationale: Why do stakeholders want FRA to conduct a study in their region?

Stakeholders: Who will participate in the study?

Previous Work: What Regional or Multi-State Planning has been completed in the region?

Governance: What institutional arrangements exist to support planning and rail development in the region?

Commitment: How are the states and stakeholders willing to support the study?



Thank you for your kind attention! Questions?

