



**Midwest Regional
Rail Planning
Study**

*Midwest Interstate Passenger Rail Commission
Annual Meeting
Wichita, KS*

October 10, 2017

 U.S. Department of Transportation
Federal Railroad Administration

The banner features a background image of a grand, classical-style building with columns and arches. A large circular logo is positioned in the upper right, containing stylized horizontal lines in orange, green, and blue. The text is overlaid on the left side of the image.

Project Goal

*Produce a 40-year framework for the Midwest
intercity passenger rail network, including a
prioritization of corridors and investment projects,
a governance structure, and funding strategy.*



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The slide has a blue header with the text 'Project Goal'. The main content is centered and italicized. A small circular logo is in the bottom left corner, and the number '2' is in the bottom right corner.

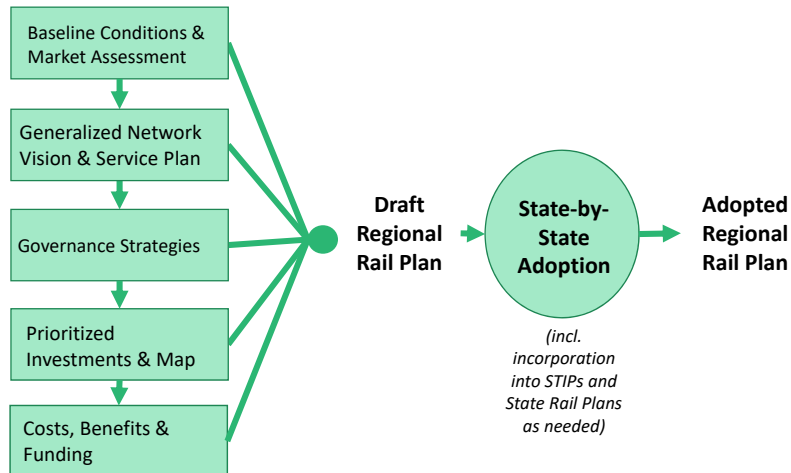
Study Participants



- Stakeholder Planning Group
 - Primary Midwest Rail Plan States (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI)
 - Other stakeholders: host and operating railroads, MIPRC, MPOs and municipalities, advocacy groups
 - Complementary Jurisdictions: KY, NY (Buffalo), TN, PA (Pittsburgh), WV, Ontario



Elements of a Regional Rail Plan



Study Outcomes

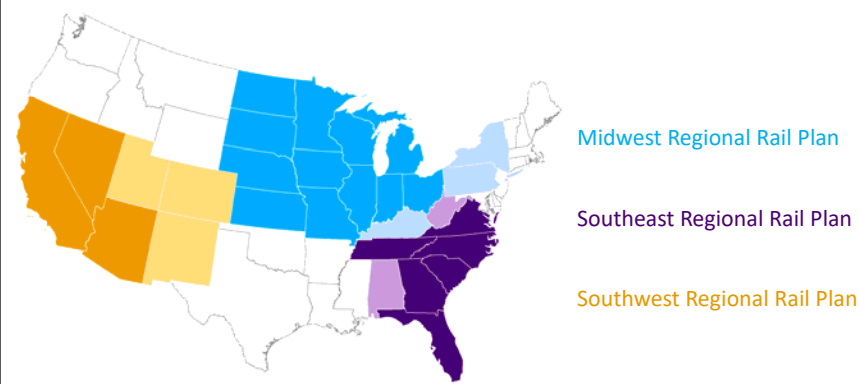
A Regional Intercity Passenger Rail Plan for the Midwest

- Summary of **existing rail and transportation plans**
- Assessment of **existing and potential future passenger travel demand**
- Analysis of the **performance of each corridor** as a standalone investment and as part of a potential network
- A **high-level prioritization of Midwest corridors**
- A **Midwest governance structure** that originates primarily from the Midwest state DOTs
- A **benefit-cost analysis** for the regional network
- **Lessons learned** to provide comprehensive regional rail planning guidance



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FRA Regional Rail Planning Efforts



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Southwest Study Outputs

Potential Core Express candidate corridors

- San Diego–S.F./Oakland
- Greater Los Angeles–Las Vegas
- Las Vegas–Salt Lake City
- Las Vegas–Reno
- Las Vegas–Tucson via Phoenix
- Greater Los Angeles–Phoenix
- San Diego–Phoenix

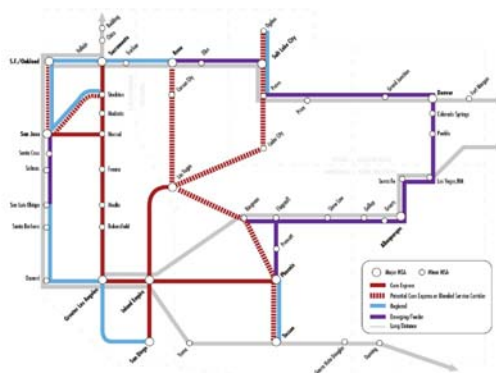
Potential Regional candidate corridors

- S.F./Oakland–Reno
- Phoenix–Tucson

Potential Feeder candidate corridors

- Phoenix–Albuquerque
- Reno–Salt Lake City

Recommended Network Connections between MSAs

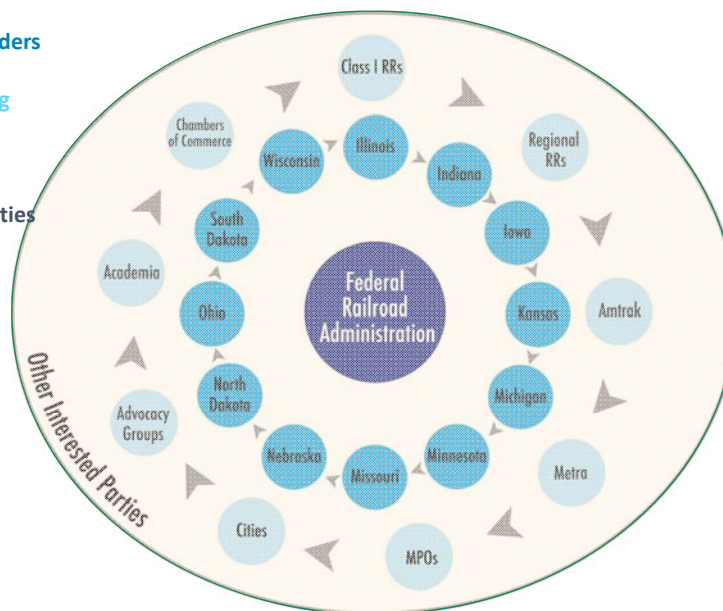


Source: Southwest Multi-State Rail Planning Study



Stakeholder Engagement

1. Lead Stakeholders (States)
2. Other Planning Group Stakeholders
3. All other interested parties



Stakeholder Engagement Goals

- *Inform the work being undertaken by FRA and the consultant team;*
- *Achieve support and consensus on the outcome of the planning study; and,*
- *Encourage on-going participation in advancing the projects and programs required to implement the Midwest framework.*

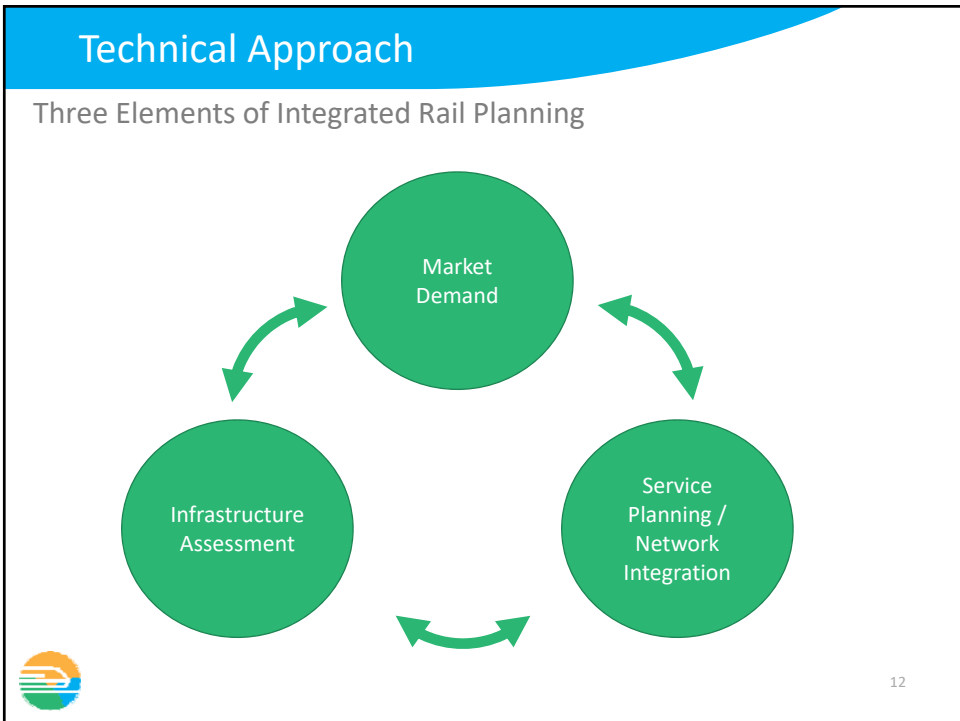
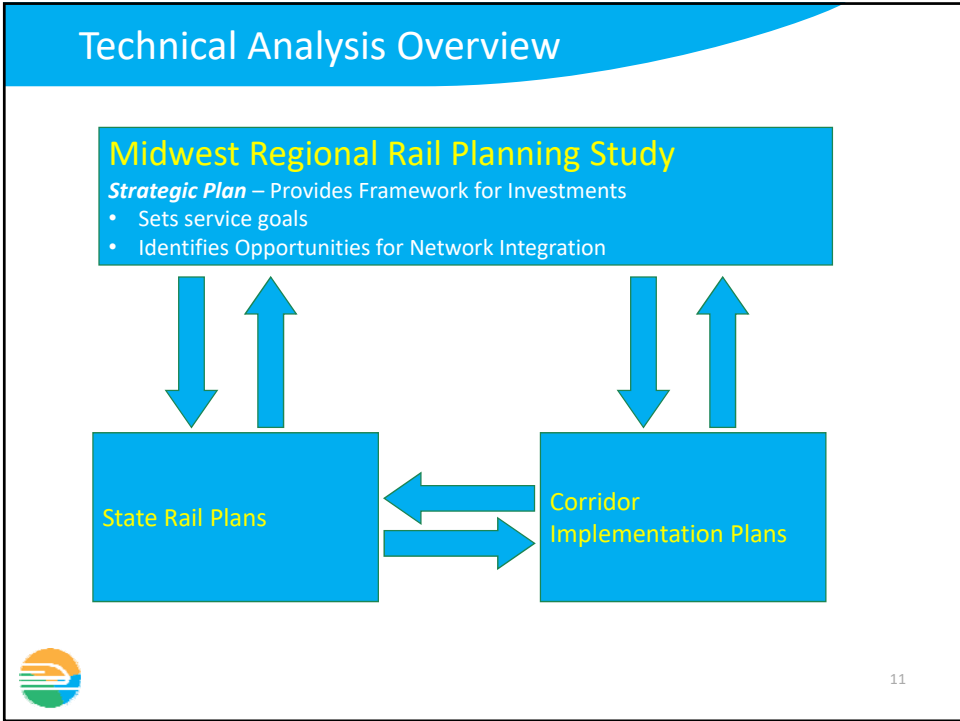


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High-level view of Plan process



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Goals and Principles

Shared Regional Network Planning Goals

- 1) Maximize the utility of capital investment across the full range of potential markets and passenger types
- 2) Improve regional and intercity rail connections between small/mid-sized cities and large metropolitan areas; and among mid-sized cities within the Midwest
- 3) Advance corridors that maximize ridership (*new*)
- 4) Build toward the maximum viable service tier for corridors in network
- 5) Encourage capital investment in the short-term that is consistent with state’s plans and the long-term network vision
- 6) Support improvements that are mutually beneficial to passenger and freight rail (*new*)
- 7) Minimize the friction of passenger transfers
- 8) Progress regional networks that support national and urban needs (*new*)
- 9) Maximize economic opportunities from passenger rail corridor development (*new*)
- 10) Consider regional and intercity rail connections to major airports within the region



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Goals and Principles

Service Principles – Service Tiers

Corridors	Top Speeds (mph)	Other Common Characteristics	Primary Markets Served	Minimum Reliability Target (On-time Performance)
Core Express	over 125	Frequent service; dedicated tracks, except in terminal areas; electric-powered	Serving major metropolitan centers	99%
Regional	90–125	Frequent service; dedicated and shared tracks; electric- and diesel-powered	Connecting mid-sized urban areas with each other or with larger metropolitan areas	95%
Emerging/Feeder	Up to 90	Shared tracks	Connecting mid-sized and smaller urban areas with each other or with larger metropolitan areas	85%



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Importance of Governance


- The implementation of a Regional Rail Plan requires extensive coordination
- A governance structure can facilitate the coordination and implementation of the plan and its projects across multiple jurisdictions
 - Formalize roles and responsibilities
 - Develop protocols and decision-making procedures
 - Establish accountability and oversight
 - Represent individual states' and other stakeholders' objectives
- A functioning governance framework can sustain the momentum of the regional plan



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Governance Models

Based on Collaboration or Agreement			Agreement	Authorized by Legislation		
Coordinated State Efforts	Coalition/ Partnership	Single State Agency Contracting with/on behalf of other States	Public / Private Partnership	Multi-State Commission	Multi-State Special Authority	Federal-State Commission



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Current Study Status

- Completed initial runs of “*building block networks*,” including ridership and operating & maintenance cost considerations
- Incorporating stakeholder input to produce comprehensive regional network proposals for presentation at final Stakeholder Workshop (December 6, Chicago)
- Developing Governance report reflecting potential for future institutional coordination in the region
- Continued outreach to stakeholders, including railroads



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Insights on Study Objectives


- Not looking to make bold conclusions
 - Define corridors based on the core, essential markets
 - Define levels-of-service broadly (i.e. by Service Tier)
- Focus on ruling out unpromising options, not identifying a single, detailed preferred option
- Recognize value of existing and proposed services that are independent of the regional network



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Lessons from Stakeholder Input
Core Express – All or Nothing?

- If Core Express looks best for a corridor, do we sit on our hands until that happens?



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Lessons from Stakeholder Input
Core Express – All or Nothing?

Service Tier – CHI-MSP

Options

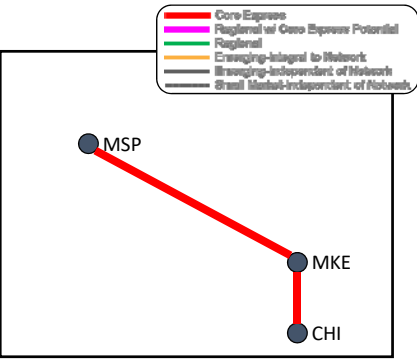
- Emerging, Regional and Core Express service tested for representative route

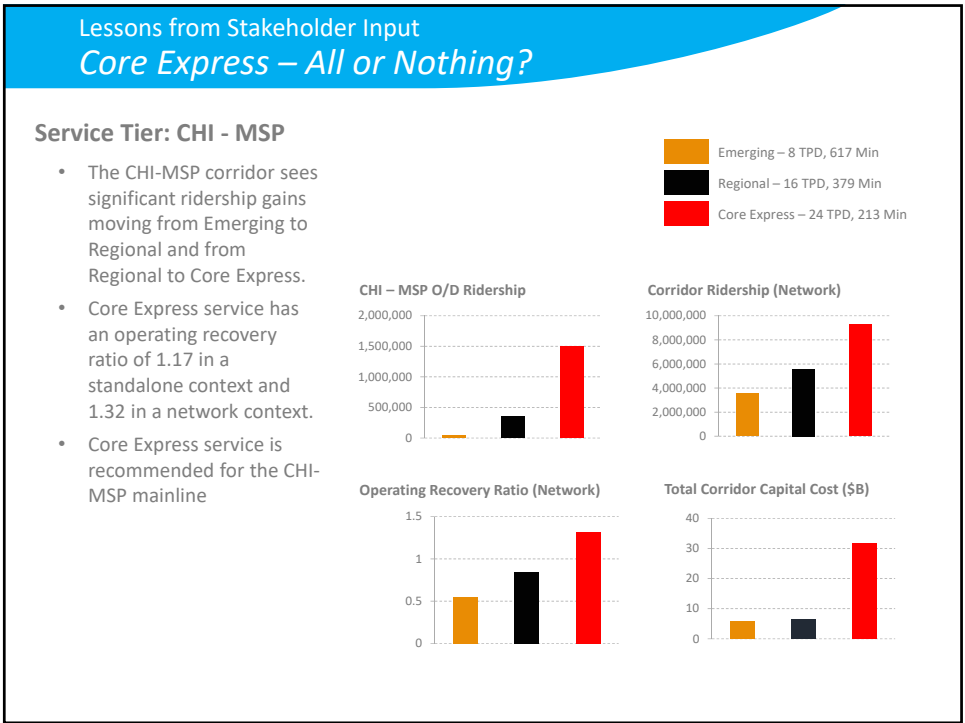
Analysis Findings

- Strong ridership growth at each incremental service tier

Conclusion


- Core Express is warranted based on incremental ridership
- Business case for high capital investment to be confirmed






Lessons from Stakeholder Input
Core Express – All or Nothing?

- If Core Express looks best for a corridor, do we sit on our hands until that happens?**
 - Need to set stage for near- and mid-term improvements to service*
 - Recommend an incremental service that could be developed in advance of Core Express*
 - Help to build market for rail service in corridor*
 - Be sensitive to minimize “throwaway” investments*
 - Learn from the “California Model”*


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Lessons from Stakeholder Input
Core Express vs. Regional

- What is the true ridership benefit and incremental cost of Core Express vs. a high-level (16+ round-trips/day) Regional Service?



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Southwest: Route Service Tier

Service Tier: CHI - STL

- The CHI-STL corridor sees significant ridership gains moving from Emerging to Regional with limited ridership gains moving from Regional to Core Express service.
- Regional & Core Express have operating recovery ratio of ~ 1.0 in network context.
- Regional is more cost effective; Core Express does not appear to offer significant additional network benefits.

Service Tier	TPD	Min
Emerging	8	263
Regional	16	237
Core Express	24	117

CHI – STL O/D Ridership

Service Tier	Ridership
Emerging	~900,000
Regional	~1,100,000
Core Express	~1,400,000

Corridor Ridership (Network)

Service Tier	Ridership
Emerging	~2,500,000
Regional	~3,800,000
Core Express	~3,500,000

Operating Recovery Ratio (Network)*

Service Tier	Operating Recovery Ratio
Regional	~1.1
Core Express	~0.9

*Emerging not shown because load factors were well above one so Op RR wasn't relevant

Total Corridor Capital Cost (\$B)

Service Tier	Capital Cost (\$B)
Emerging	~4
Regional	~5
Core Express	~20

Lessons from Stakeholder Input
Core Express vs. Regional

- **What is the true ridership benefit and incremental cost of Core Express vs. a high-level (16+ round-trips/day) Regional service?**
 - *High degree of fare sensitivity in auto-centric markets*
 - *Capital cost sensitivity for Regional Service on constrained rights-of-way*
 - *Need for robust sensitivity testing where high-level Regional service appears most advantageous*



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Lessons from Stakeholder Input
Path Forward on Governance

- MIPRC acknowledged by all as a success
- Catch-22 for more detailed, deeper institutional arrangements (project-specific agreements, operating oversight, etc.)
 - Attracting implementation funding calls for formalizing supporting institutional arrangements
 - Takes effort and political capital to create institutional arrangements, but hesitancy to make effort until money is on the table



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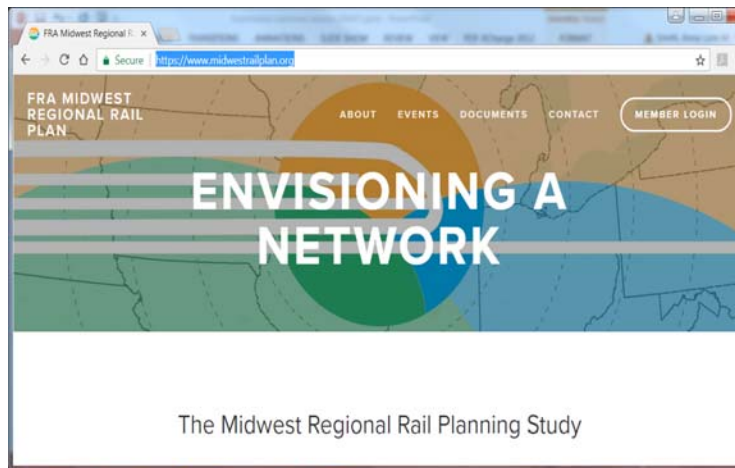
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Project Website

<https://www.midwestrailplan.org/>



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