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.
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

Baseline Conditions & Market Assessment
Generalized Network Vision & Service Plan
Governance Strategies
Prioritized Investments & Map
Costs, Benefits & Funding
Draft Regional Rail Plan
State-by-State Adoption
(inc. incorporation into STIPs and State Rail Plans as needed)
Adopted 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

FRA Regional Rail Planning Efforts

[Map showing regions
Midwest Regional Rail Plan
Southeast Regional Rail Plan
Southwest Regional Rail Plan]
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.*
Technical Analysis Overview

**Midwest Regional Rail Planning Study**
*Strategic Plan* – Provides Framework for Investments
- Sets service goals
- Identifies Opportunities for Network Integration

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**Technical Approach**

Three Elements of Integrated Rail Planning

- Market Demand
- Infrastructure Assessment
- Service Planning / Network Integration
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

Goals and Principles

Service Principles – Service Tiers

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

Governance Models

Based on Collaboration or Agreement
- Coordinated State Efforts
- Coalition/Partnership
- Single State Agency Contracting with/on behalf of other States

Agreement
- Public/Private Partnership
- Multi-State Commission

Authorized by Legislation
- Multi-State Special Authority
- Federal-State Commission
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

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
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?

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?

Service Tier: CHI - MSP

- The CHI-MSP corridor sees significant ridership gains moving from Emerging to Regional and from Regional to Core Express.
- Core Express service has an operating recovery ratio of 1.17 in a standalone context and 1.32 in a network context.
- Core Express service is recommended for the CHI-MSP mainline.

- 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”
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?

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.

Emerging – 8 TPD, 263 Min
Regional – 16 TPD, 237 Min
Core Express – 24 TPD, 117 Min

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

**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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The Midwest Regional Rail Planning Study