Midwest High Speed Rail Association

The Economic Impacts of High Speed Rail: Transforming the Midwest

Highlights from the research project prepared by AECOM and the Economic Development Research Group, Inc., and sponsored by Siemens

MidwestHSR.org
The Midwest High Speed Rail Association
The Midwest High Speed Rail Association is a Chicago-based, member-supported, non-profit organization advocating for fast, frequent and dependable trains linking the entire Midwest. Its diverse membership base includes nearly 2,000 individuals, local governments and corporations.

The Midwest High Speed Rail Association’s goal is to persuade local, state and federal governments to implement an aggressive railroad expansion and provide ongoing operational support for fast trains throughout the Midwest.

This report presents highlights from a larger study prepared for the Midwest High Speed Rail Association and sponsored by Siemens, based on a high-level engineering study conducted by AECOM and an economic impact assessment of the Chicago Metropolitan region conducted by the Economic Development Research Group, Inc. (EDRG). We would like to thank all those who participated in this study for their valuable insights and time, including Solomon Cordwell Buenz, who provided a conceptual design for the incorporation of high speed rail at Union Station. The full version of the study can be viewed at MidwestHSR.org.

Special thanks to our sponsor

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The Economic Impacts of High Speed Rail: Transforming the Midwest

Perhaps no region in the United States is better positioned to capitalize on high speed rail than the Midwest.

As the world’s fifth largest economy, (at $2.6 trillion and approximately equal to France, only the U.S., Chinese, Japanese and German economies are larger) the Midwest possesses a diverse manufacturing, agricultural and business services base anchored by nine major metropolitan areas. High speed rail (HSR) will have a transformative impact that will unify the Midwest and solidify its future position as one of the world’s most powerful economic mega-regions.

The Midwest High Speed Rail Association is undertaking a series of studies to clearly define this vision. Eight Midwest states have already studied upgrading existing Amtrak corridors, which share track with freight carriers, to 110-mph systems. This new initiative focuses on the 220-mph trains necessary to slash travel times to less than three hours (often two) between major cities.

The goal is to describe five important characteristics of a 220-mph Midwest system that will help define this vision:

1. The alignment and operating characteristics of the HSR corridors and supporting infrastructure
2. The location and development potential of key HSR stations
3. The costs to construct the HSR system
4. The impact of high speed rail on economic development and job growth
5. The financial resources needed to build a system that will repay its costs of construction, support its operation and sustain the Midwest as a competitive player in the global marketplace
Study Results

This study examined a system serving all major metropolitan areas within 350 to 450 miles of Chicago. The region would be served by a four-spoke network with Chicago at the center of corridors connected to Cleveland/Detroit, Cincinnati, St. Louis and Minneapolis-St. Paul. Trains would operate at 220-mph on dedicated track with no grade crossings.

The results of this study demonstrate both the feasibility and the tremendous promise for this network:

- 43 million annual riders from 13 cities and major metropolitan areas
- More than $2.2 billion annually in user-generated revenues
- 25 daily departures on each of the four corridors
- Capacity for up to 10 trains in peak hours on each corridor
- 2-3 hour travel times between Chicago and the furthest points of the network

The economic impact of the 220-mph network on Chicago would be staggering. New jobs and business opportunities will support and enhance the Chicago metropolitan area’s global competitiveness and help Chicagoland maintain its preeminence as a global center by linking the financial, educational, technology and medical research resources of the entire region to produce:

- $13.8 billion per year increase in business sales for the Chicago Metro area alone
- 104,000 new jobs and an additional $5.5 billion in wages each year in the Chicago Metro area resulting from increased economic activity
- $314 million in new annual visitor spending in downtown Chicago

New jobs in the Chicago metropolitan area alone represent $118 billion in wages over 30 years, and the new business sales generated by economic activity associated with the HSR system are estimated to be almost $300 billion over 30 years.

The study estimates that the system would cost about $58 million per mile, or a total of $83.6 billion, putting it in the range of similar systems already operating around the world. Construction can be phased over time to meet the demands of the Midwest travel market.

Estimated Annual Total Economic Impacts of Chicago-based HSR Service in 2030

<table>
<thead>
<tr>
<th>Measure</th>
<th>Unit</th>
<th>150-mph Service</th>
<th>220-mph Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>2030 Employment</td>
<td>Jobs</td>
<td>58,049</td>
<td>103,610</td>
</tr>
<tr>
<td>2030 Output (business sales)</td>
<td>$ billion/year</td>
<td>$7.6</td>
<td>$13.8</td>
</tr>
<tr>
<td>2030 Value-Added (Gross Regional Product)</td>
<td>$ billion/year</td>
<td>$4.3</td>
<td>$7.8</td>
</tr>
<tr>
<td>2030 Wages</td>
<td>$ billion/year</td>
<td>$3.0</td>
<td>$5.5</td>
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</tbody>
</table>

Source: EDR Group Inc. TREDIS model analysis
Next Steps
The Midwest High Speed Rail Association is sharing these initial findings to stimulate discussion and generate support for an expanded study that will document the expected economic benefits for the region as a whole.

Based on what is already known about the impact on Chicago, there is ample reason to believe that the system would considerably enhance economic activity in the rest of the region and enable the Midwest to remain a strong global player.

The Midwest High Speed Rail Association expects that every metropolitan area on the network would see explosive economic activity and job growth as a result of having access to 220-mph trains. Expanding these initial studies, and working closely with each of the metropolitan areas the system serves, will demonstrate new and innovative ways that investments in a truly “high speed” rail system will be repaid many times over in jobs tied to economic development in the new and emerging industries of the 21st century.

The support of state and municipal governments, economic development entities, the business community, and other stakeholders is vital in the Midwest High Speed Rail Association’s quest to define the benefits of a 220-mph rail network for the entire region and to set the foundation for a new century in the Midwest.

Ridership Forecast Summary

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Miles</th>
<th>150-mph</th>
<th>220-mph</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHICAGO – MINNEAPOLIS / ST. PAUL</td>
<td>442</td>
<td>25.7</td>
<td>28.6</td>
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<tr>
<td>CHICAGO – ST. LOUIS¹</td>
<td>311</td>
<td>14.1</td>
<td>15.9</td>
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<tr>
<td>CHICAGO – CINCINNATI²</td>
<td>284</td>
<td>12.6</td>
<td>14.2</td>
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<tr>
<td>CHICAGO – DETROIT/CLEVELAND</td>
<td>420</td>
<td>23.8</td>
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<tr>
<td>CHICAGO TERMINAL STATION</td>
<td>-</td>
<td>0.450</td>
<td>0.475</td>
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<tr>
<td>SYSTEM TOTALS³</td>
<td>1,430</td>
<td>74.7</td>
<td>83.6</td>
</tr>
</tbody>
</table>

Notes:
¹ Figures include route overlap from West Loop to Grand Crossing
² Figures include route overlap from West Loop to Gary
³ Totals exclude route overlap
Source: AECOM 2011.

High Speed Definitions

There are different kinds of high speed rail proposed for the United States. Here is a breakdown of the various systems according to Federal Railroad Administration (FRA) guidelines:

- Core Express high speed rail will operate at speeds of 125 to 250 mph. This is the current standard for leading high speed networks in Europe and Asia. Core Express HSR operates on dedicated right-of-way, separated from other trains, and is completely grade-separated.

- Regional high speed rail, which operates at speeds from 90 to 125 mph, can share existing tracks with freight and other forms of passenger rail with the use of positive train control technology.

- Emerging high speed operates at up to 90 mph and can run on existing tracks that have been upgraded.
Integration with the Midwest Regional Rail Initiative

The Midwest Regional Rail Initiative (MWRRI) is a cooperative effort of nine states to design and implement a system of emerging high speed rail corridors radiating from Chicago. It proposes trains approximately every two hours at speeds of 90 to 110 mph on tracks shared with freight trains. This network will provide critical connections between over 200 cities and towns in 9 states. The MWRRI has served as the basis for the states’ applications for federal high speed rail funding.

This study focuses on creating the 2 to 3 hour travel times essential to linking the major cities of the Midwest in an economically integrated mega-region. Achieving this goal will require new, purpose-built track and operating speeds of 220 mph. In addition to speed, the new track will have the capacity for up to 10 trains an hour, creating the potential for additional local services.