2009
Iowa Railroad System Plan




Iowa Department of Transportation

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Introduction

The *2009 Iowa Railroad System Plan* is intended to guide the Iowa Department of Transportation (DOT) in its activities of promoting access to rail transportation, helping to improve the freight railroad transportation system, expanding passenger rail service, and promoting improved safety both on the rail system and where the rail system interacts with people and other transportation modes.

The Iowa DOT has been developing railroad transportation plans since the late 1970s. The original plan was prepared in 1978 during a time of crisis in the Iowa railroad system. Several large Iowa railroad carriers had filed for bankruptcy and were reorganizing both their businesses and physical systems. The 1978 plan was a guide for determining which railroad lines the state would partner with to preserve and improve the lines. In the 1970s, 1980s and 1990s, the railroad system mileage in Iowa was reduced from about 8,000 to approximately 4,000 miles, a level that has been fairly stable since that time.

Rail plan updates have been prepared about every five years — in 1985, 1995 and 2000. The main issues addressed in these plans have evolved over the years. For instance, in 1978 and 1985, the main issues were railroad line abandonments, major rail carrier bankruptcies and ways of managing both of these issues. A major change in the role of the Iowa DOT occurred during the 1980s, when U.S. freight railroads were largely deregulated by the Staggers Rail Act of 1980 (see Public Law 96-448). Railroads became responsible for setting their own rates and service patterns for the first time in a century. This law also altered the Iowa DOT's role as the department became more involved in rail transportation advocacy and placed increased emphasis on the promotion of safety improvements.

The 1980s and early 1990s were also a time of great turmoil for railroads and shippers in Iowa. By 1995, the Iowa rail system had downsized to around 4,000 miles of track and had become much more stable. At that point, the emphasis of the state rail plan targeted investments that would preserve and improve remaining rail service in Iowa. Also, there was a considerable focus on understanding the role that Iowa railroads play in transporting bulk freight commodities such as grain and coal, the two key commodities moved by rail in Iowa.

The *2000 Iowa Railroad System Plan update* had a similar focus on system preservation and commodity flows, targeting improvements to support freight transportation and freight movement.

Plan	Main area of focus
1978	Determine future rail lines
1985	Advocate preservation of rail service and safety
1995	Targeted investments
2000	System preservation and commodity flows
2009	Promoting access, safety and economic development improving passenger rail system

Public participation

Railroads are a vital part of Iowa's overall transportation system, helping to move both freight and passengers safely and efficiently. Maintaining and improving rail service in Iowa requires a proactive partnership between a number of organizations, including private rail carriers, rail shippers, passengers, the Iowa DOT, other state and federal agencies, and local governments.

Several methods were utilized to provide information to individuals and gather their input on the development of this plan, including the Rail Advisory Committee (RAC), Passenger Rail Advisory Committee (PRAC), metropolitan planning organizations (MPOs), regional planning affiliations (RPAs), Dr. Forkenbrock's *Transportation Policy Strategies for Iowa to Advance the Quality of Life* report, and several rail focus group meetings.

Numerous discussions on rail issues and directions were held with the RAC, which includes a member of each railroad that operates within Iowa. In addition, rail information is regularly shared with the MPOs and RPAs.

The PRAC is a relatively new advisory group created to assist the Iowa DOT in addressing a wide array of passenger rail issues important to Iowans. They focus on providing public input on the rail plan and guidance on the development of a funding program for passenger rail.

Dr. Forkenbrock's *Transportation Policy Strategies for Iowa to Advance the Quality of Life* report utilized a diverse array of stakeholders to identify transportation investment strategies having the potential to make Iowa's economy strong and the state a place that offers a rich quality of life. Both railroads and rail users were invited to participate in the discussions and share their thoughts on rail transportation. The report can be found at http://www.iowainmotion.com/files/trans_policy_strategies.pdf.

Five rail freight roundtable meetings were previously held around the state to discuss rail freight transportation issues. The meetings focused on the future of rail transportation in Iowa; and what should be the Iowa DOT's role and investment. Participants included railroads, rail users, state agencies, and trade organizations with an interest in rail transportation.

Overview of the document organization

The *2009 Iowa Railroad System Plan* is organized in three major parts, including:

Part I - The Iowa railroad investment plan identifies the key issues facing Iowa's railroad system today. These issues impact Iowa's economic well-being and the safety of Iowa's citizens. This part of the document also contains a detailed action plan for addressing the identified issues.

Part II - The Iowa railroad resource guide provides background information for the plan, grouped by topic. It also provides information about railroads and Iowa's railroad system. The major topics covered in this section of the document include:

- Iowa's railroad system and carriers.
- Freight rail service and the Iowa economy.
- Passenger rail and the Iowa economy.
- Railroad network safety and security.
- Railroad and community interactions.

Part III - The five appendices provide detailed information about more specific topics.

- Appendix A: Government oversight of railroads
- Appendix B: Government financial assistance programs
- Appendix C: Midwest Regional Rail Initiative
- Appendix D: 2008 Iowa railroad profiles
- Appendix E: Performance measures for Iowa's railroad system

Part I. Iowa railroad investment plan

This part of the *2009 Iowa Railroad System Plan* identifies the key issues facing Iowa's railroad system today. These issues impact Iowa's economic well-being and the safety of Iowa's citizens. This portion also documents the plan's purpose and goals, and provides a detailed investment action plan for addressing the identified key issues, a vision of the future system and costs needed to implement that system, and a comparison of the cost and revenues. The plan also includes performance measures that can be used to determine how well railroads are meeting citizen expectations in providing rail infrastructure and services.

Purpose

The *2009 Iowa Railroad System Plan* details the state's role in providing and preserving adequate, safe and efficient rail transportation services to Iowans. The plan is intended to serve as a guide for decision makers and provides a basis for future Iowa DOT policy, funding priorities and programming decisions that affect rail transportation service in Iowa.

The primary purpose of the *2009 Iowa Railroad System Plan* is to guide the Iowa DOT in pursuing actions that maintain and improve railroad transportation in Iowa. The plan is a component of the *Iowa Statewide Transportation Plan* known as "Iowa in Motion." This plan considers railroads from an intermodal perspective. Many commodities that move by rail also move by other modes (principally trucks) during part of their journey from origin to destination. The same is true of persons who use rail passenger service to make trips and who must also rely on other modes to access rail service. Therefore, railroads are part of larger intermodal freight and passenger transportation systems.

Railroads are a vital part of Iowa's overall transportation system, helping to move both freight and passengers safely and efficiently. Railroads are absolutely critical for some Iowa freight commodities, including corn, soybeans, chemicals, motor vehicles and other equipment, wood and paper products, minerals and ores, coal, and biofuels.

Passenger rail can play a critical role in helping to address the ongoing challenges of unstable energy prices, higher levels of greenhouse gas emissions and the growing mobility needs of Iowans. Without efficient railroad transportation, Iowa's economy would suffer. Maintaining and improving railroad service in Iowa requires a proactive partnership between a number of organizations, including private rail carriers, rail shippers, passengers, the Iowa DOT, other state and federal agencies, and local governments.

Key issues for Iowa's railroad system today and tomorrow

An important part of this plan involves the identification of current and emerging rail issues. The issue identification process is important because it allows the Iowa DOT and other railroad stakeholders to focus their efforts and partnerships on critical issues impacting the future of Iowa's railroad system. This process included obtaining issues from metropolitan planning organizations (MPOs), regional planning affiliations (RPAs), railroads, and through focus group meetings discussed in the public participation section of this plan.

A number of issues have been determined by Iowa railroad stakeholders as critical. These issues will need to be addressed cooperatively by the public and private sectors over the next decade to continue to make railroad transportation effective in meeting Iowa's transportation needs. While these are not the only issues important to consider, they are the ones that likely have a large impact on the goals of safety, efficiency and quality of life. These goals are consistent with the State Transportation Plan goals as outlined on page 10. The plan also identifies specific railroad investment actions needed to address these issues. These issues include, but are not limited to, the following.

Key issues

Both freight and passenger

- Improving the security of the Iowa rail network
- Increasing funding availability from state, federal and private sources
- Increasing safety at highway-railroad crossings

Freight

- Increasing rail capacity to meet current and future demand
- Increasing rail access to accommodate business and industries considering locating or expanding in Iowa
- Upgrading branch lines to handle increasingly heavier rail cars

Passenger

- Sustaining current passenger rail service on Amtrak long-distance service
- Expanding intercity passenger rail service to serve Iowa's population centers

Both freight and passenger

Improving the security of the Iowa rail network

Like other portions of the United States' transportation system, the railroad system is extensive and largely open in terms of access. Following the terrorist attacks of Sept. 11, 2001, it became obvious that not only was the transportation system vulnerable to attacks, but the system could be used as a weapon in attacks. Improved security of key assets in the railroad transportation system is a high priority. (This issue concerns safety.)

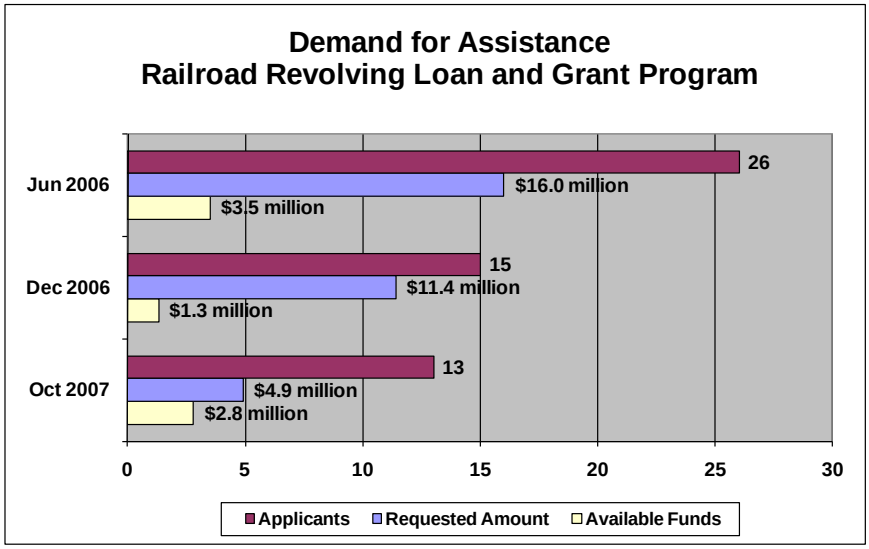
Increasing funding availability

*Iowa busines*ses and communities will benefit from the economic advantages that rail transportation can provide. Access to rail lines can lower costs and open new markets for business, as well as promote new growth and economic development. Railroads invest in improving the basic rail infrastructure to attract new customers, increase revenues and increase the capacity of Iowa's rail system.

A public-private partnership is needed to fill the rail infrastructure needs now and in the future. The investment needed to build rail infrastructure is capital intensive with a mile of new rail line costing between $1 and $3 million. Over the years, the investment made

by the railroads has been supported in various ways by the public sector. Continuing that partnership today will build on the past to create a vibrant future for rail transportation in Iowa.

Increased public and private funding for both freight and passenger rail will be needed to keep Iowa competitive in the national and global marketplace. The demand for rail investment financial assistance continues to grow as shown by the following combined charts outlining the requests for funding through the state's Rail Revolving Loan and Grant program and American Reinvestment and Recovery Act (Recovery Act) of 2009.



Source: Iowa DOT

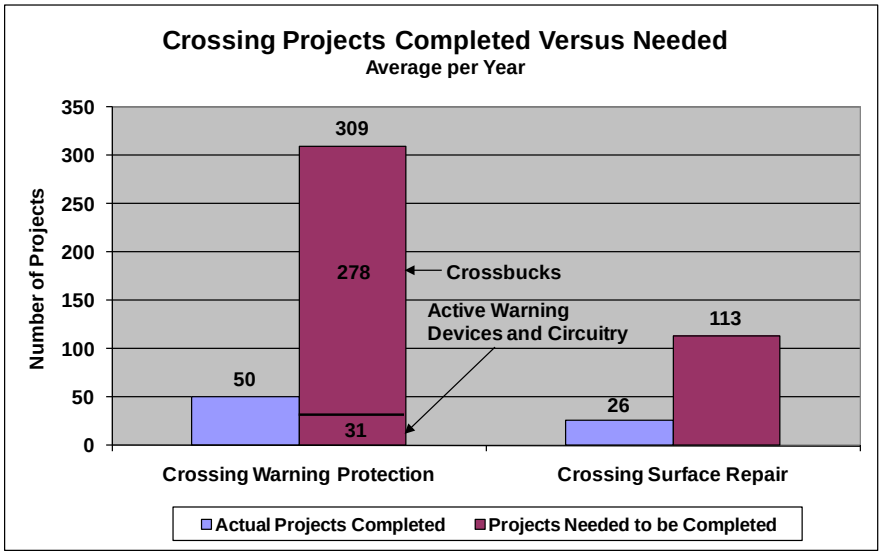
Demand for 2009 Recovery Act funding*

Type of project	Number of applications	Application amount	Total rail project cost
Economic development	5	$13,102,375	$21,102,375
Rail line rehabilitation	25	$29,148,181	$40,942,001
Both	3	$5,800,465	$7,781,465
Total	33	$48,051,021	$69,825,841

* $5 million available from Recovery Act funding provided to Iowa through the Federal Highway Administration was programmed by the Iowa Transportation Commission for use on freight rail projects.

Increasing safety at highway-rail crossings

Highway-rail crossing safety has been dramatically improved in Iowa over the past two decades. Likewise, the number of railroad derailments has decreased steadily. These are very positive trends, but more can be done to improve safety at crossings and on the rail system in general. An emerging concern involves increased trespassing on railroad rights of way and associated train-pedestrian incidents. (This issue concerns safety.)



Source: Iowa DOT

Some Iowa rail lines, particularly the east-west main lines, have experienced dramatic increases in freight traffic in recent years. For the communities these lines pass through, this has meant increases in railroad-related impacts, such as traffic congestion, blocked crossings, noise, air pollution emissions, and delays in emergency response. As a result, local demand for railroad quiet zones, stationary automated train horns and expensive grade separations has been on the rise. (This issue concerns quality of life.)

Freight

Increasing rail capacity to meet current and future demand

Freight traffic moving east and west through Iowa is growing in all modes of transport. The rail-related increase is mainly a result of growing coal traffic and increasing amounts of container freight moving from west coast ports through Iowa to Chicago and beyond. Truck traffic on Interstate 80 is growing at a rate that will require a $1 billion or more investment in highway capacity over the next 20 years. Similarly, the UP's east-west main line from Clinton to Council Bluffs, and BNSF's lines in Iowa are operating at or near capacity in terms of trains per day. These railroad corridors run parallel to the I-80 corridor. Increased capacity is needed soon at the 100-year-old UP Clinton/Fulton bridge crossing, and along parts of the BNSF's and UP's main lines. Investment in rail could relieve congestion on I-80 and other major freight-carrying highways in Iowa. (This issue concerns efficiency and quality of life goals.)

As the price of petroleum has risen, coal has taken on an increasingly vital role in meeting energy needs in Iowa and elsewhere. As a result, coal freight traffic continues to increase dramatically. This is especially true of high-quality, low-sulfur coal that comes from the coal fields in the western United States. There are several large coal-fired power plants that are scheduled to come online in Iowa over the next five years, and others have been planned or proposed in the region. This will inevitably lead to growth in coal traffic through Iowa. Selected rail lines will need to be upgraded to serve the new coal-fired electric generating facilities and resulting coal train traffic. (This issue concerns efficiency and safety.)

Freight traffic is increasingly international in nature. Although the Iowa DOT's main focus should be and must be promoting and improving the rail system within Iowa, access to and from Canada, Mexico and deep-water ports, such as Los Angeles and Long Beach in Southern California, is increasingly important to Iowa's economy as trade with China and the rest of Asia expands. Additional deep-water ports are being constructed on the west coast of Canada and Mexico to serve trade demand, and Iowa needs to be in a good position to access these facilities. (This issue concerns efficiency.)

Increasing rail access to accommodate business and industries considering locating or expanding in Iowa

Ethanol, biodiesel and other types of value-added industries are changing the nature of freight flow in Iowa. Plants for ethanol and biodiesel processing have been built rapidly in Iowa, and the state is quickly developing a large bioeconomy. About one-fifth of Iowa's 2006 corn harvest was used to make ethanol, and experts think this could grow to 40 percent within 10 years.

Soy biodiesel production is ramping up a bit more slowly. Outbound raw grain will decline as a result, both by rail and water. Also, short hauls of grain by rail are increasing. Outbound rail products will increasingly include liquid biobased fuels, as well as other products of value-added agriculture, such as food products, animal feed products, and chemicals. Many of these products, particularly biobased fuels and residual chemicals, will still move by rail. However, the freight will be carried in trains made up of tank cars rather than in trains made up of covered hopper cars. Some byproducts, such as animal feed, will be moved shorter distances in trucks.

Manufacturers of other commodities, including wind turbines, are also looking to locate along a rail line in Iowa. These developments may result in major changes to freight traffic in some parts of Iowa and may lead to changes in the infrastructure needed. (This issue concerns efficiency.)

Upgrading branch lines to handle increasingly heavier rail cars

Iowa has hundreds of miles of rail lines, mainly lighter-density branch lines and some lesser-used main lines that are unable to carry the size and weight of railroad equipment that have recently become standard in the industry. This makes it difficult for railroads to operate efficiently. Strategic investments in select low-capacity rail lines are needed to ensure that Iowa's rail system can continue to move freight safely and efficiently. These investments will likely be made through partnerships between Iowa's rail carriers, shippers, communities, and the public sector. (This issue concerns efficiency and safety.)

Passenger

Sustaining current passenger rail service on Amtrak long-distance service

The key challenges facing Iowa's long-distance rail passenger service today are the amount and quality of service on the national routes. Iowa's current long-distance service is infrequent, with only one train per day in each direction across the state, and the service suffers from on-time performance issues. The key issues can be summarized as follows.

National system

- Maintaining Iowa's connection to Amtrak's national passenger rail system
- Sustainable funding at the federal level for the national system
- On-time performance improvements
- Low frequencies
- Providing transportation connections between the long-distance service and populated areas of Iowa
  (These issues concern efficiency and quality of life.)

Expanding intercity passenger rail service to serve Iowa's population centers
Recent increases in energy costs have revived interest in developing a regional network of fast, reliable passenger service in Iowa connecting to Chicago and other regional hubs in the Midwest. Corridor passenger trains are the most efficient type of passenger rail service that could be developed, and such services could be competitive with both air service and use of personal vehicles. This is a current focus issue for Iowa and a number of nearby states. Regional cooperation and public support is necessary to develop an effective high-speed passenger rail service. The key issues can be summarized as follows.

Intercity service

- Expanding passenger rail service in Iowa to include regional service to the Midwest
- Sustainable funding at the state and federal levels for operating support and capital needs
- Acceptance that passenger rail will need operating subsidies and capital funding
- Providing service competitive in time with personal vehicle travel
- Cultural change in how people view passenger rail
- Providing transportation connections between rail and transit and air
- Capacity on shared tracks with freight railroads must be maintained

Commuter service

- Sustainable funding at the local and state levels for operating support and capital needs
- Acceptance that passenger rail will need operating subsidies and capital funding
- Providing service competitive in time with personal vehicle travel
- Providing transportation connections between rail and transit
  (These issues concern efficiency and quality of life.)

Goals

Development of the State Transportation Plan for all modes is centered on three transportation goals: (1) safety, making Iowa a safer place to travel; (2) efficiency, making the best use of resources; and (3) quality of life, making Iowa a better place to live, work and travel through transportation actions and investments.

Safety: Transportation safety and security continue to be a primary concern and an integral element in the planning and programming processes. Increased transportation safety through the reduction of crashes is the foremost element in an effective and efficient transportation system.

Efficiency: Transportation efficiency is a system-wide theme, which at its core implies best use of available funding, including a reduction in overall costs.

Quality of life: One of Iowa's greatest resources is the quality of life that exists within its borders. Transportation services do support Iowans with many quality of life benefits. Iowans value the ability to move and travel with ease. Mobility can be defined in many ways as it will vary with each person's needs. It can be an elderly person having access to rural transit services or for another citizen it can be access to a passenger rail station.

These goals serve as the pillars upon which the investment actions are based. They are the foundation for transportation decisions and will guide the development of Iowa's future freight and passenger rail system.

The achievement of these three goals will support economic development and job growth while being sensitive to the environment.

Action plan for addressing Iowa's railroad issues

The investment actions were developed from the public input received through the Iowa DOT's extensive public outreach efforts, as well as Iowa DOT planning studies, reports and plans; and an analysis of Iowa's demographic trends, movement of people and goods, and condition of the transportation system. These actions build upon those identified in the state's transportation plan and support the goals.

Rail freight investment actions

Goals	Actions
Safety	1. Improve highway-rail crossing safety a. Repair and upgrade existing crossing passive warning devices and active traffic-control systems b. Rehabilitate existing crossing surfaces i. Continue the primary surface repair program ii. Continue assistance to railroads and local jurisdictions for surface repairs c. Encourage crossing closures d. Build new grade separations and rehabilitate existing separations
	2. Monitor rail track, equipment and security conditions a. Continue the track inspection program b. Analyze and monitor the movement of hazardous materials c. Serve as a liaison between railroads and Iowa Homeland Security/Emergency Management d. Identify and define Iowa DOT's role in security, especially with shortline railroads
	3. Promote rail safety a. Support and promote Operation Lifesaver activities b. Provide education and marketing information for issues i. Train horns – quiet zones ii. Trespassing c. Work more closely with law enforcement to promote active enforcement of traffic laws relating to crossings and private property rights related to trespassing
Efficiency	1. Improve the physical infrastructure of the rail system in partnership with Iowa's shippers and railroads

	a. Rehabilitate branch lines b. Build or improve spur tracks c. Build or improve rail transfer facilities d. Build or improve rail yards, terminals, sidings, connections, and passing tracks e. Serve as an information/advocacy role for federal programs that benefit rail transportation
	2. Preserve rail service a. Promote economic development that is served by rail transportation b. Acquire rail rights of way for future rail use
	3. Promote the importance of rail transportation a. Coordinate activities with the rail users and providers b. Take a leadership role in regional and national coalitions c. Develop and present education and marketing information i. Conduct rail economic impact studies on the impact of lost rail lines on highways and economic benefit of rail to the state economy
	4. Take an active role in rail regulatory issues a. Represent Iowa's interest in mergers, acquisitions and abandonments b. Propose new regulations and/or work to eliminate existing federal and state regulations that are no longer needed
	5. Participate in freight planning activities for Iowa a. Develop best practices and guidelines for MPOs and RPAs b. Develop a freight advisory group c. Conduct tradeoff analyses d. Review other state practices
Quality of life	1. Reduce transportation-related congestion and air pollution a. Provide assistance for rail infrastructure improvements b. Promote the environmental benefits of rail transportation
	2. Serve as an information and conflict resolution clearinghouse (liaison with railroads, FRA, cities, counties, and citizens) for items such as: a. Blocked crossings. b. Rough crossings. c. Quiet zones. d. Noise near rail yards. e. Fencing along rail lines. f. Vegetation along rail lines. g. Bridges over/under roadways.
	3. Preserve historic/cultural rail facilities using transportation enhancement funds a. Depots b. Museums

Passenger rail investment actions

Goals	Actions
Safety	1. Improve passenger rail terminal platforms 2. Continue the track inspection program 3. Support rail and railroad crossing infrastructure improvements to safely accommodate passenger rail service
Efficiency	1. Preserve rail service a. Provide financial support for passenger rail service
	2. Promote the importance of rail transportation a. Conduct rail economic impact studies, such as feasibility studies for expanded passenger rail service and economic benefit of rail to the state economy b. Expand intercity passenger rail and commuter services through active involvement with the Passenger Rail Advisory Committee and community coalitions
	3. Participate in passenger planning for Iowa a. Develop best practices and guidelines for MPOs and RPAs b. Continue efforts with the statewide Passenger Rail Advisory Committee c. Review other states practices
Quality of life	1. Reduce transportation-related congestion and air pollution a. Provide assistance for rail infrastructure improvements b. Promote the environmental benefits of rail transportation
	2. Support passenger rail services a. Upgrade rail passenger stations b. Support the continuation of Amtrak's national rail passenger services on existing lines c. Partner with other states to implement the Midwest Regional Rail Initiative d. Study the need for additional intercity and commuter passenger rail service e. Support feasible rail-transit and rail-recreational opportunities f. Continue to seek statewide passenger rail funding from the state legislature

Iowa's future rail system

Action results

Implementing these actions to improve safety, efficiency, and quality of life will result in:

- Lower transportation costs.
- Increased transportation competition.
- More transportation choices.
- New economic development.
- Additional jobs creation.
- Improved economic vitality.
- Increased net income for Iowa businesses and agricultural industry.

Iowa's rail freight vision

National, regional and local rail freight services are an integral part of Iowa's intermodal transportation system. The rail freight vision and mission for Iowa are as follows.

Vision

A rail freight network that connects Iowa to local, regional, national, and international markets, and makes Iowa more competitive in the global economic marketplace.

Mission

Promote a safe rail freight network that addresses users' needs, and maximizes economic, social and environmental benefits for Iowa.

Iowa's rail freight network will provide viable transportation options for Iowa businesses. This rail network will:

- Connect industries in Iowa to each other, as well as to regional trade centers outside of Iowa.
- Maintain cross-country, long-distance freight routes served by major Class I carriers.
- Provide a well-maintained and updated rail network that meets the needs of Iowa shippers and receivers.
- Provide transportation options to hauling goods by truck or barge.
- Serve diverse industries in Iowa.
- Provide intermodal connections to truck and barge transportation.

Future system

If funds are available to invest in rail freight service as outlined above, accomplishments achieved with this investment would include:

- Rail lines will be upgraded to handle the heavier rail cars and locomotives.
- Spur tracks will be built to accommodate new and expanding industries to support industrial development.
- Highway-rail crossings will be maintained and upgraded to improve safety.
- Viable rail service to Iowa will be provided by a mix of Class I, II and III railroads.

Iowa's passenger rail vision

Intercity and commuter passenger rail service are an integral part of Iowa's intermodal transportation system. The passenger rail vision and mission for Iowa are as follows.

Vision

Develop a passenger rail network that connects Iowans to each other and the country, and makes Iowa a more attractive place to live, work and visit.

Mission

Promote a safe passenger rail network that addresses users' needs, and maximizes economic, social and environmental benefits for Iowa.

Iowa's passenger rail network will provide viable transportation options for business, tourism and personal travel for the citizens of Iowa. This passenger rail network will:

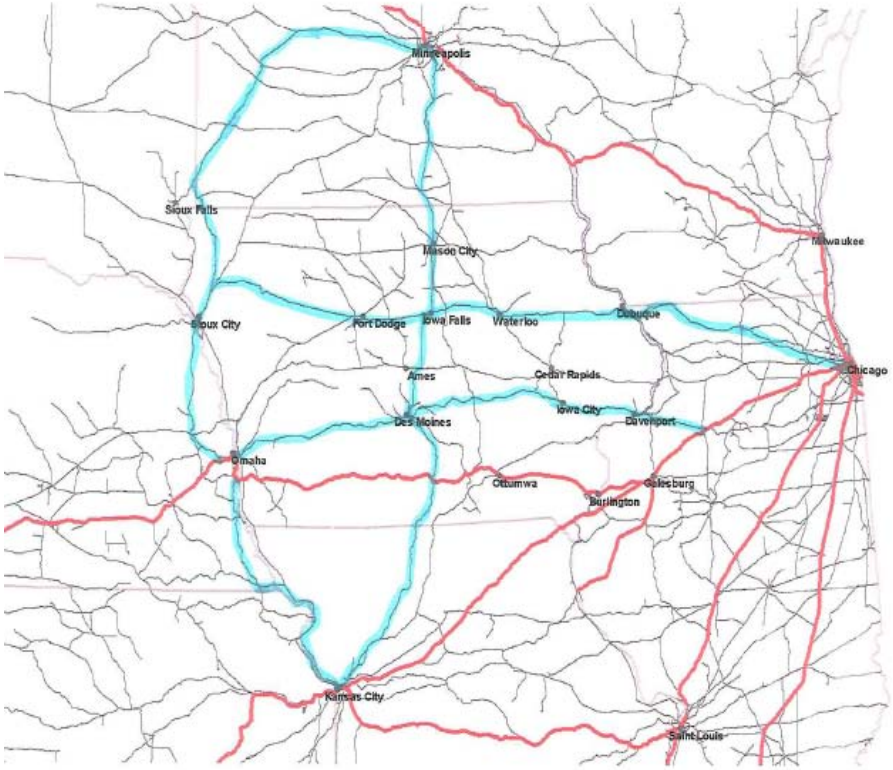
- Connect major cities in Iowa to each other, as well as to regional trade centers outside of Iowa.
- Maintain national long-distance routes served by Amtrak.
- Link Iowa to other passenger rail corridors.
- Provide transportation options to driving or flying for passengers in Iowa.
- Serve major metropolitan areas.
- Serve diverse constituency groups and their needs (universities, elderly, business travel, recreational travel).
- Provide intermodal connections to transit, airports, bicycling, and walking.
- Provide an opportunity for commuter rail service in Iowa's major metro

Future system

A future passenger rail system in Iowa could consist of a 1,230-mile intercity network, plus commuter rail service as shown in the map below. The future system adds to the existing national passenger rail network by adding five additional routes, as well as possible commuter passenger rail service opportunities in Iowa's nine MPO areas.

Initially, passenger rail service would be provided at 79 mph. As capital improvements are made and ridership demands are established, the concept and incremental costs of increasing speeds to 110 mph will be evaluated.

Future passenger rail system



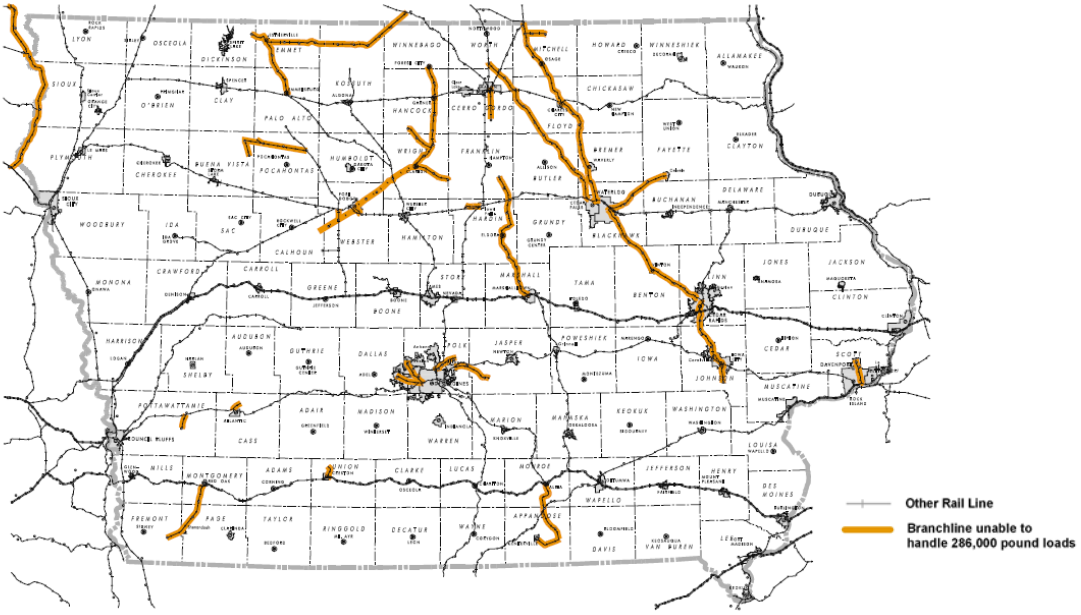
Current long-distance national routes
Future intercity routes

Potential rail projects

Rail freight projects

1. **Construct/Rehabilitate rail lines**
   Project description
   Iowa has rail lines that are unable to carry the sizes and weights of railroad equipment that have recently become standard in the industry. This makes it difficult for railroads to operate efficiently. Strategic investments in select low-capacity rail lines are needed to ensure that Iowa's rail system can continue to move freight safely and efficiently. Currently, there are 710 miles in Iowa that are not able to handle 286,000-pound cars on a regular basis. These miles are shown in the following map.

Rail lines not able to handle heavy cars



Source: Iowa DOT, 2004 Heavy Axle Load Survey

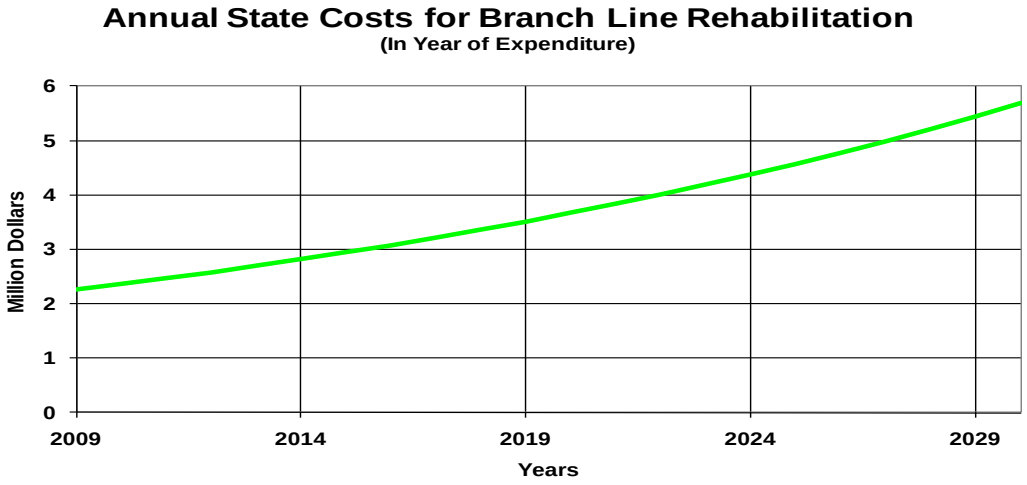
Project benefits

Investment in Iowa's rail lines to handle 286,000-pound cars may save some lines from abandonment. Loss of rail service diverts rail traffic onto local roads for movement to an alternative rail location or a local market. The added trucking results in increased transportation costs to the shippers, lower shipper income, increased highway maintenance and rehabilitation costs, and reduced opportunities for economic development. Additional trucks could have an adverse effect on highway safety and road maintenance costs. A report prepared by the State of Kansas assessed the impacts from loss of shortline rail service in the western two-thirds of Kansas. The data indicated that abandonment of shortline rail service would cause a large diversion of rail traffic to county roads and state highways, with an increase in road damage costs of $49.5 million annually. This translates into an average damage cost of approximately $0.17 per truck mile for the additional truck traffic.

If 10 percent of the originating and terminating rail traffic on the lines not capable of 286,000-pound loadings was shifted to truck due to abandonment, there would be an additional 147,000 trucks on Iowa's roadways annually, enough to pack I-80 with over six lanes of trucks, bumper to bumper across the state.

Project costs

The total cost to improve the 710 miles of rail lines would average $11.2 million per year from 2009 to 2030. Iowa's share would be $3.7 million per year assuming the state contributes one-third of the cost, ranging from $2 million in 2009 to $5.7 million in 2030. This assumes the local railroad and/or shippers would provide two-thirds of the funding. Costs are assumed to increase at a rate of 4.5 percent per year.



2. Build spur tracks

Project description

Iowa has hundreds of rail lines that provide an opportunity for industries to ship by rail. However, the lack of adequate spur tracks prevents new companies from locating in Iowa or existing firms from expanding their operations requiring rail service. Investments in spur tracks are needed. These investments can assist an industry in constructing a new rail spur or siding, or rehabilitate an existing siding or spur for increased or renewed industrial rail use. These investments will likely be made through partnerships between Iowa's rail carriers, shippers, communities, and the public sector.

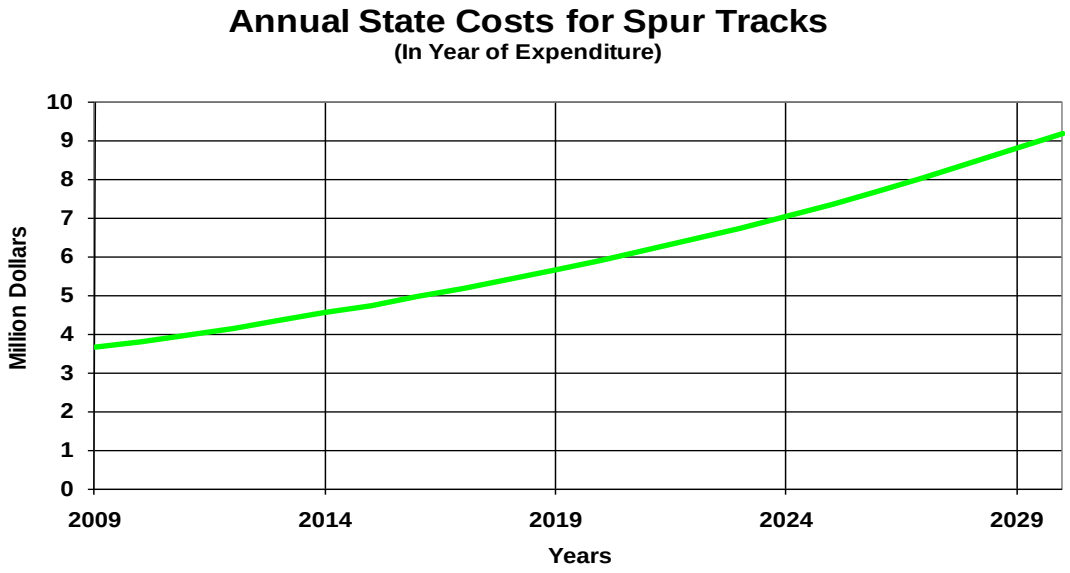
The proposed needs for spur track construction were estimated based on historical trends, and it assumed that spur track development would average five per year from 2009 to 2030, totaling 110 spurs. On average, the assumption was that each spur would cost about $2.2 million.

Project benefits

Investment in Iowa's spur tracks will assist in the development and improvement of rail facilities that support economic development and job growth that otherwise might be lost to the state. Rail improvements are expected to move freight by rail that would have been shipped on Iowa's highways. The rail spur option would decrease transportation costs to the shippers, increase shipper income, decrease highway maintenance and rehabilitation costs, and add opportunities for economic development.

The 110 rail spur projects are estimated to support the creation of nearly 5,200 jobs and leverage more than $6 billion in new capital investment in Iowa. These numbers are based on the awarded projects since June 2006. The average awarded project assisted in the creation of 47 jobs and $56 million in private capital investment.

Project costs
The total cost to improve spur tracks is estimated to be $396.4 million from 2009 to 2030, with an average of $18 million per year. Assuming the state contributes one-third of the cost, Iowa's share would equal $6 million per year on average, ranging from $3.6 million in 2009 to $9.2 million in 2030. Costs would increase at a rate of 4.5 percent per year.

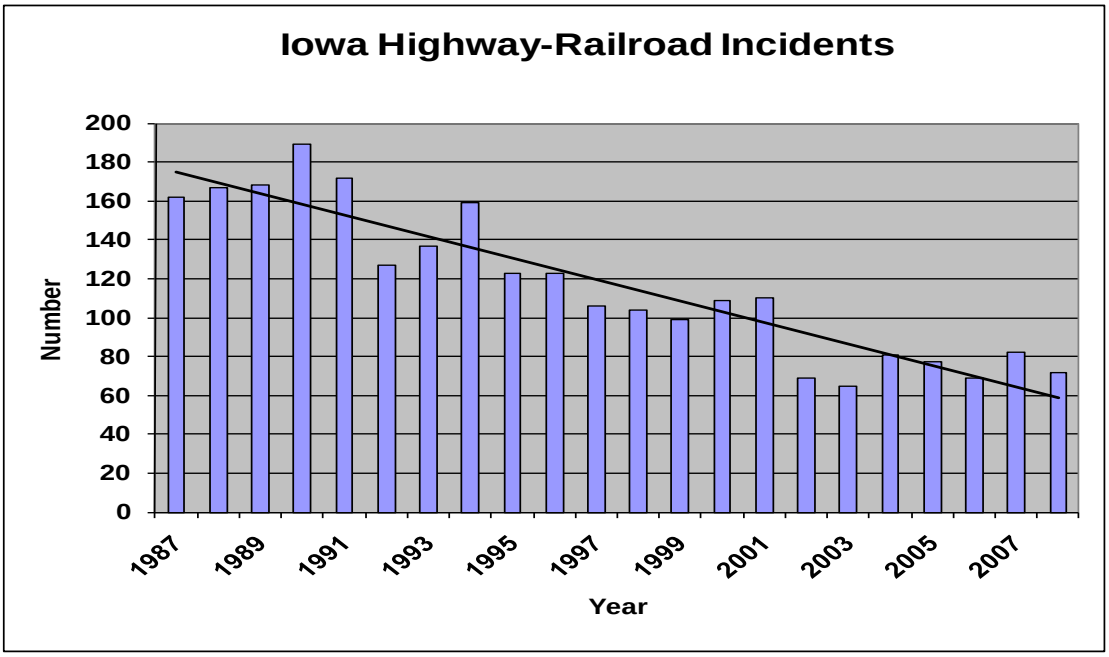


3. Improve highway-rail crossings

Project description
According to FRA's safety data, Iowa currently has 4,404 public highway-rail crossings. The number of highway-rail crossings in Iowa has declined by 17 percent since 1994 due to the decrease in operating mileage, coupled with some crossing closures on active rail lines. Currently, Iowa's crossings have better warning devices and active traffic control systems than in the past because of investments made by railroads, local jurisdictions and the state to improve crossing safety. Currently, 40 percent of at-grade crossings have signals or signals and gates. This compares to only 31 percent in 1994.

Although there are fewer miles of track and highway-rail crossings, the number of rail car-miles (one rail car traveling one mile) and the amount of freight they carry has increased dramatically. The number of rail car-miles traveled on Iowa's rail transportation system has increased by 78 percent since 1994. Similarly, the amount of freight transported, expressed in gross ton-miles, has increased by 78 percent since 1994. The rail system is not alone in experiencing an increase in traffic. Iowa's highway system traffic has increased 21 percent in the same period.

While highway-rail incidents have declined in Iowa since 1987, investments in highway-rail crossing safety continues to be a priority due to the increases in highway and rail traffic.



Source: FRA's Office of Safety Analysis

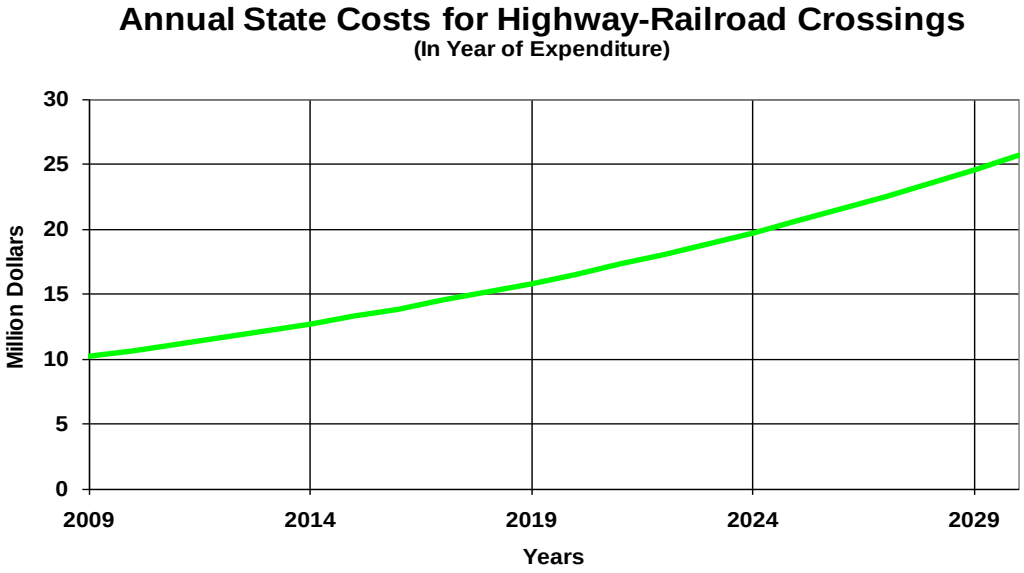
These crossing investments include installation of active traffic-control systems, circuitry upgrades to existing active traffic-control systems, low-cost improvements (raised medians, increased lens sizes, closures, illumination, etc.), passive sign replacement, and surface repairs. The cost estimates were based on adding active traffic-control systems to 20 crossings per year, upgrading circuitry on 21 crossings per year, replacing each passive sign twice from until 2030, and repairing each crossing surface once from now until 2030.

Project benefits

Highway-rail at-grade crossings continue to be a major national issue concerning public safety, capital and maintenance costs, and liability for both railroads and public jurisdictions. Due to increasing highway and rail traffic, the highway-rail at-grade crossing safety issue has become and will continue to be a focal point for the Iowa DOT. Emphasis will continue to be placed on crossing improvements and/or eliminating at-grade crossings where feasible. Crossing improvements will benefit Iowans by reducing the exposures for accidents at existing at-grade crossings.

Project costs

The total cost to improve highway-rail crossings is estimated to average $36.2 million per year. Assuming the state contributes 60 percent of the cost of surface repairs and 90 percent of the cost of warning devices, Iowa's share would equal $16.8 million per year on average, ranging from $10.2 million in 2009 to $25.7 million in 2030, assuming that costs would increase at a rate of 4.5 percent per year.



4. Address capacity constraints

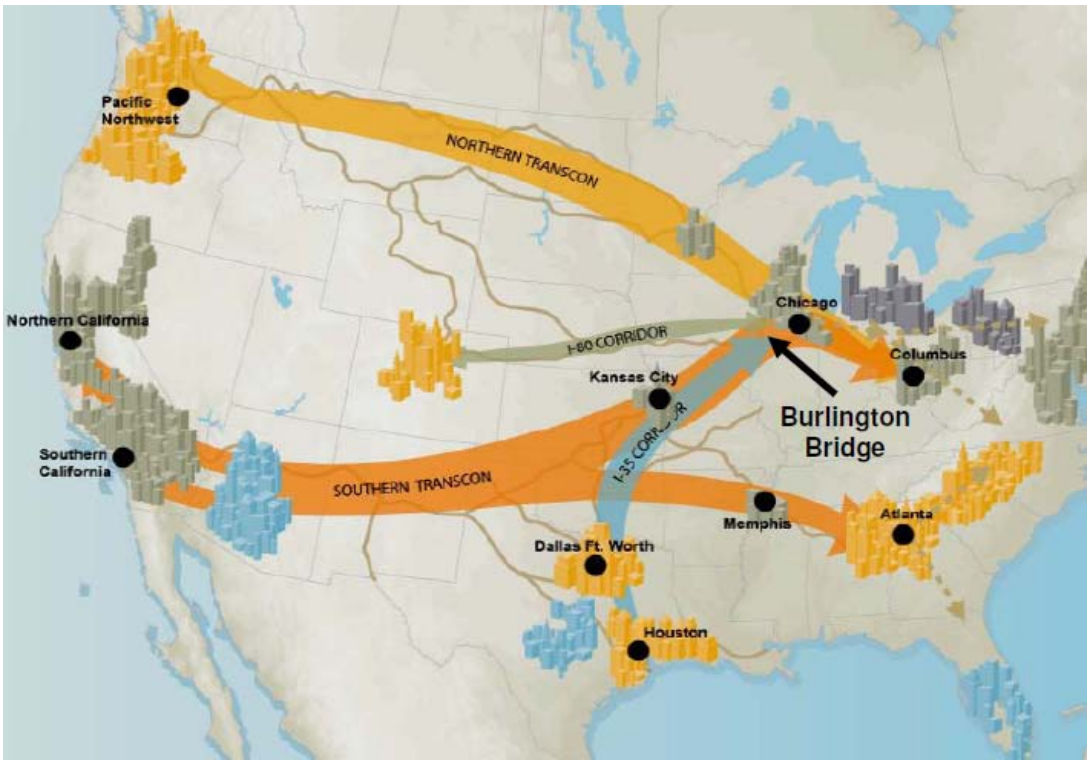
With current estimates indicating an increase in the amount of freight carried on the rail in Iowa, it is clear that steps must be taken to improve the efficiency of the rail freight network. Bottlenecks also account for long delays that result directly in additional expenditures for shippers, carriers and for the public. This in turn is contributing to the decline of Iowa's and the nation's transportation cost advantage. The following projects are proposed to address some of the rail bottlenecks in Iowa.

4.1 BNSF's Burlington River bridge

Project description

The BNSF is proposing to replace the approach spans on the Burlington River bridge spanning the Mississippi River and connecting the cities of Burlington, Iowa, and Gulf Port, Ill. The project proposes replacement of the 1891-era approach spans of a major Mississippi River bridge with new structures. The current bridge has been renovated multiple times and requires frequent maintenance periods to maintain its capacity to handle growing rail volumes. The original bridge was built to standards of the 19th century, designed to carry much lower cyclical loadings attributable to fewer and shorter trains. It is currently under speed and usage restrictions to extend its useful life.

BNSF's Burlington River bridge



Project benefits

The Burlington River bridge is a key resource to the nation's economy, and supports efficient rail transportation service of high-priority intermodal, industrial goods, low-sulfur coal, and Amtrak. The Burlington River bridge currently serves approximately 29 trains per day, transporting a variety of cargo from coal to high-priority intermodal trains connecting Chicago with Denver, to industrial products and agricultural commodities. The bridge is part of a major coal traffic artery that brings low-sulfur Powder River Basin coal from Wyoming to the east that accounts for the electrical generation output for 9 million homes. Amtrak's California Zephyr also utilizes this route, providing daily service from Chicago to San Francisco. In addition, the bridge is on the U.S. Military's Strategic Rail Corridor Network (STRACNET) because it as important infrastructure for the movement of important military equipment between bases and ports in times of defense emergencies.

The BNSF now reduces the speed of trains transiting the bridge to 10 mph. The BNSF plans to further reduce the bridge utility by implementing operating rules that allow only one train to utilize the bridge at any one time, which would reduce maximum loads, as well as the bridge's overall capacity.

Future train volumes are expected to exceed the operational capacity of the Burlington River bridge leading to increased staging of trains east and west of the Mississippi River crossing, as well as eventual train diversions to more circuitous routes around the bridge. The resulting additional staging of freight

and passenger trains and the diversion over lengthier routes averaging 130 additional miles would cost the public more than $18.7 million in increased environmental costs, $500,000 in inventory costs, $89.4 million in transportation costs, and $28.8 million in vehicle costs at-grade crossings.

Construction of the new Burlington River bridge approach spans would enable rail traffic to utilize both main line tracks concurrently at higher speeds. This would facilitate rail movement flexibility both east and west to best support rail traffic meets and passes, greatly improving the bridge's overall rail capacity. The replacement of the approach spans would also eliminate the need for future biannual, five-day maintenance blitzes where the bridge must be closed for in-depth inspection and repair. The new approach spans would also reduce the probability of train delay and structural impacts caused by potential barge collisions, based on more structurally robust planned pier replacements.

Projects costs
This project proposes a $124 million, phased reconstruction program consisting of new bridge support pier foundations, concrete substructure and 250-foot steel truss ballast deck superstructure constructed to current design standards, including the E-80 load factors. The proposed project is designed to maximize bridge utility, while limiting environmental impact both during and after construction.

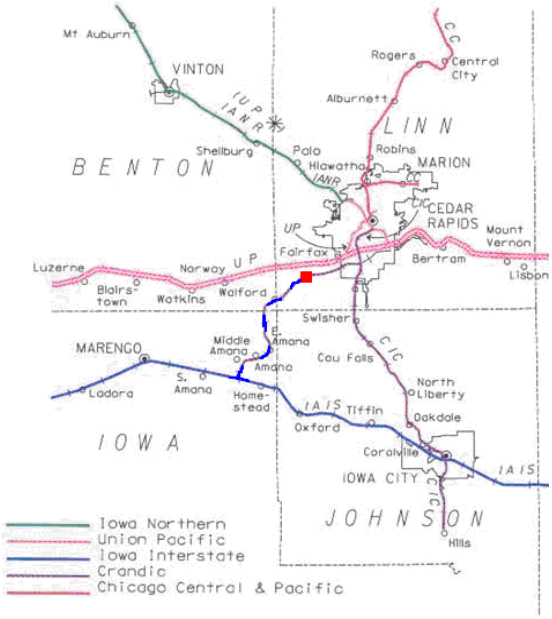
In September 2009, the BNSF submitted a Transportation Investment Generating Economic Recovery (TIGER) application under the American Recovery and Reinvestment Act of 2009 for $25 million. No state funding was requested. BNSF has committed to provide the balance of the funding required to complete bridge construction by February 2012.

4.2 Cedar Rapids and Iowa City Railway Co.'s (CRANDIC) yard

Project description
CRANDIC is proposing to build a new interchange yard that would provide for the quick and efficient movement of cars between the CRANDIC and Iowa Interstate Railroad (IAIS) southwest of Cedar Rapids. The interchange yard will include two nearly 10,000-foot tracks accommodating a full, 135-car unit train in preparation for the Archer Daniels Midland expansion.

The proposed project site is clear of any crossings and has few residential properties nearby. In addition to serving the current large-scale business expansion under construction, the site also has the potential for future economic development immediately adjacent to the railroad property.

CRANDIC's service territory
(The red dot is proposed site of interchange tracks between CRANDIC and IAIS.)



Project benefits
CRANDIC's interchange project will create a more robust local rail transportation network with the effect of preserving and improving the existing railroad system. Additionally, existing rail yards will realize a longer, useful life by reducing the amount of traffic over switches on tracks that are too short for efficient interchange. Significant collateral benefits include avoiding truck traffic increases on the nation's highways and subsequent road damage.

Forecasts for increased traffic volumes range from 20,000 to 40,000 cars per year. Transporting corn and ethanol by rail will keep hundreds of thousands of trucks off the highways resulting in substantially less congestion, emissions, damage, and upkeep to the national highway system. If the entire incremental productivity from known industry expansions shipped via truck, the impact of the 300 to 400 trucks per day would take a heavy toll on local road conditions, as well as local air quality.

By encouraging the use of rail and avoiding an estimated addition of more than 100,000 trucks from the roadway system each year, the result will be less congestion and potential for highway accidents or fatalities. Using an average round trip per truck of 200 miles, truck miles per year on public highways and interstates will be reduced by 20 million miles. This reduction in traffic will increase the life of the roadways by avoiding increased wear and tear.

The yard will eliminate the final system constraint by eliminating the use of tracks too short for receipt and delivery of unit trains. This will lead to less fuel wasted during engine idling time, less labor time wasted and reduced blockage of local roads by trains during interchange. In short, CRANDIC spends as much

as four hours per day sorting interchange cars in and out of the existing interchange yard, and the IAIS also spends as much as four hours per day delivering and receiving trains. Having a dedicated receiving track and separate, dedicated outbound track reduces the time required to prepare the trains. Interchange time will also be reduced by two to three hours per railroad, per occurrence.

Emission reductions will be realized through the improvements resulting from CRANDIC's interchange project. Significantly more efficient operations will reduce labor costs, interchange time and wasted fuel leading to an efficient and "greener" railroad. Elimination of unnecessary idling can save fuel, prolong engine life and reduce emissions. It can also help reduce the noise levels.

Construction will require several contractors for groundwork and track installation. Approximately 30 to 50 contract employees are expected to support the project's implementation. The efficiency gained by the project will not only benefit two railroads, but it will also benefit rail-served customers who have announced the addition of nearly 110 jobs.

Project costs
The new interchange yard is expected to cost $7.035 million. In September 2009, CRANDIC submitted a TIGER application. No state funding was requested.

4.3 Iowa Northern Railroad Co.'s (IANR) track and bridge rehabilitation

Project description
The project scope is designed to rehabilitate a vital regional railroad infrastructure by renovating both bridge and track structures that are at least 80 years old. This project will result in designating IANR's infrastructure between Cedar Rapids and Manly as 286,000-pound capable, which will allow IANR to interchange with all of its connecting railroads. In addition, the work will provide major dimensional clearance improvements to handle higher and wider loads, which is very important to grow manufacturing, distribution of wind turbine and electric transmission components and equipment, and renewable biofuels.

The scope of the work for the track rehabilitation project includes taking up worn, light-jointed rail and replacing it with continuous, welded rail to address and remedy the rail deficiencies on the portion of the main line located between Waterloo and Manly (the "Manly subdivision"). The bridge rehabilitation portion of the project addresses structural deficiencies, clearance and capacity issues at 24 bridges within this main line section.

Project benefits
By overcoming these challenges through the TIGER project, IANR will be able to better serve the rural areas where it operates and develop more opportunities for those communities. This project will have a dramatic, positive impact on shippers using IANR, and most particularly the grain, biomass, ethanol, and wind industries that are an essential key to Iowa's economic growth.

The proposed repair and rehabilitation of bridges and track infrastructure will lead to the elimination of most derailment causes and other operating incidents.

Additionally, by increasing bridge safety in rural areas, the project's bridge rehabilitation portion will reduce the possibility of a catastrophic failure that may endanger the health and well-being of rural residents living near the IANR's tracks.

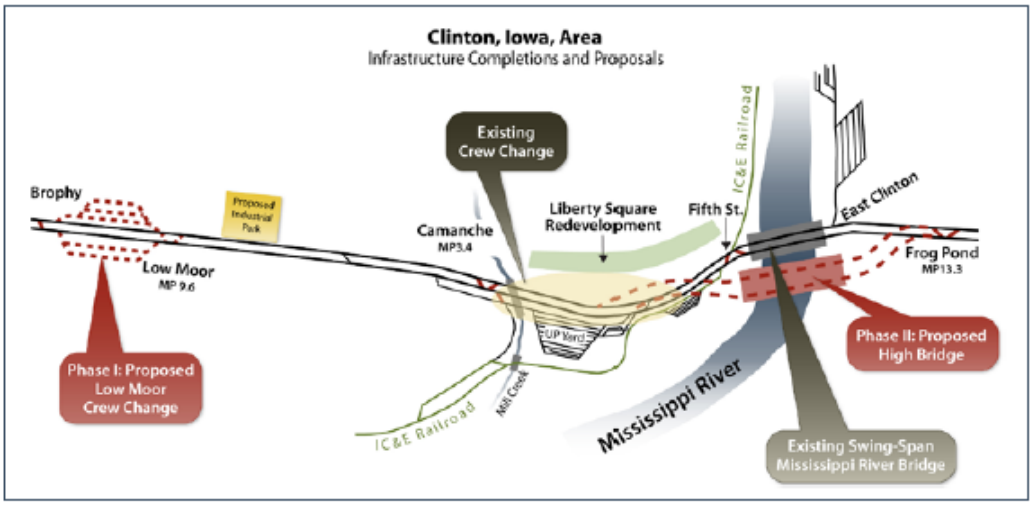
Once investments are made, the lifecycle of the entire IANR's rail system will be extended for decades, and ongoing maintenance costs and capital spending requirements will diminish considerably. As the railroad bridges are repaired or replaced, the improvements will ensure that trains operating to and from the structures are on safe, sound track, and reduce the fuel penalties involved with slowing down for bridge structures and acceleration after the train passes each bridge.

Project costs
The corridor improvement plan is expected to cost $24.4 million, $16 million for track rehabilitation and $8.4 million for bridge repair. In September 2009, IANR submitted a TIGER application for $19.9 million, with the remaining $4.5 million from IANR. No state funding was requested.

4.4 UP's Clinton bridge

Project description
The UP is proposing to replace the existing swing-span bridge at Clinton with a new, higher elevation, clear-span bridge. The existing Mississippi River bridge at Clinton, built in 1909, is a movable bridge — it opens and closes to enable river traffic to pass an average of nine times every day, and 14 times per day during peak river shipping season. For a cumulative five hours of every 24, the bridge is open for river traffic, during which time trains must stop. The U. S. Coast Guard has designated the Clinton bridge a hazard to navigation and recognizes it is a significant impediment to both marine and train traffic. UP plans to replace the existing movable bridge with a high-level bridge under which river traffic can freely pass and over which rail traffic can freely move. The new bridge would be funded by a combination of private and public funds provided under the Truman-Hobbs Act.

As the first step, UP's Phase 1 consists of the relocation of an existing rail yard west of Clinton to remove it from the footprint of a proposed high-level rail bridge across the Mississippi River that is to be constructed in Phase II.



Project benefits
The new bridge will replace a 100-year-old bridge that is a persistent hazard to navigation and causes significant loss of national economic competitiveness due to delays it creates, as well as capacity limits on train and river barge traffic.

The UP's Mississippi River bridge at Clinton carries transcontinental rail traffic, including agricultural products, motor vehicles, manufactured goods, building products, and coal. The UP's rail line across the bridge, known as the Overland Route, is one of only four principal transcontinental rail routes across the United States. There are no economic or practical rail route alternatives available that can accept the traffic volume the bridge carries, which averaged 63 trains per day until the recent economic downturn. Currently, an average of 51 trains per day use the bridge, carrying more than 40 million tons per year. There is also no economic or practical alternative to ceasing river traffic on the Upper Mississippi River, which carried 29 million tons of commodities, primarily grain, in 2007.

The new bridge will:

- Increase train capacity across the Mississippi River by 50 percent.
- Eliminate diversion of freight to longer routes that are more costly to shippers and the public.
- Eliminate diversion of freight to trucks, which increases public costs due to pavement damage, emissions, highway congestion, and highway crashes.
- Eliminate barge collisions, restrictions on river traffic and navigation hazards caused by the existing bridge; and reduce fuel use, emissions and costs of river transportation.
- Improve the competitiveness of agricultural producers and freight shippers in Iowa and throughout the United States.
- Create jobs.

During Phase 1, an estimated 614 construction and construction-related jobs will be created or preserved.

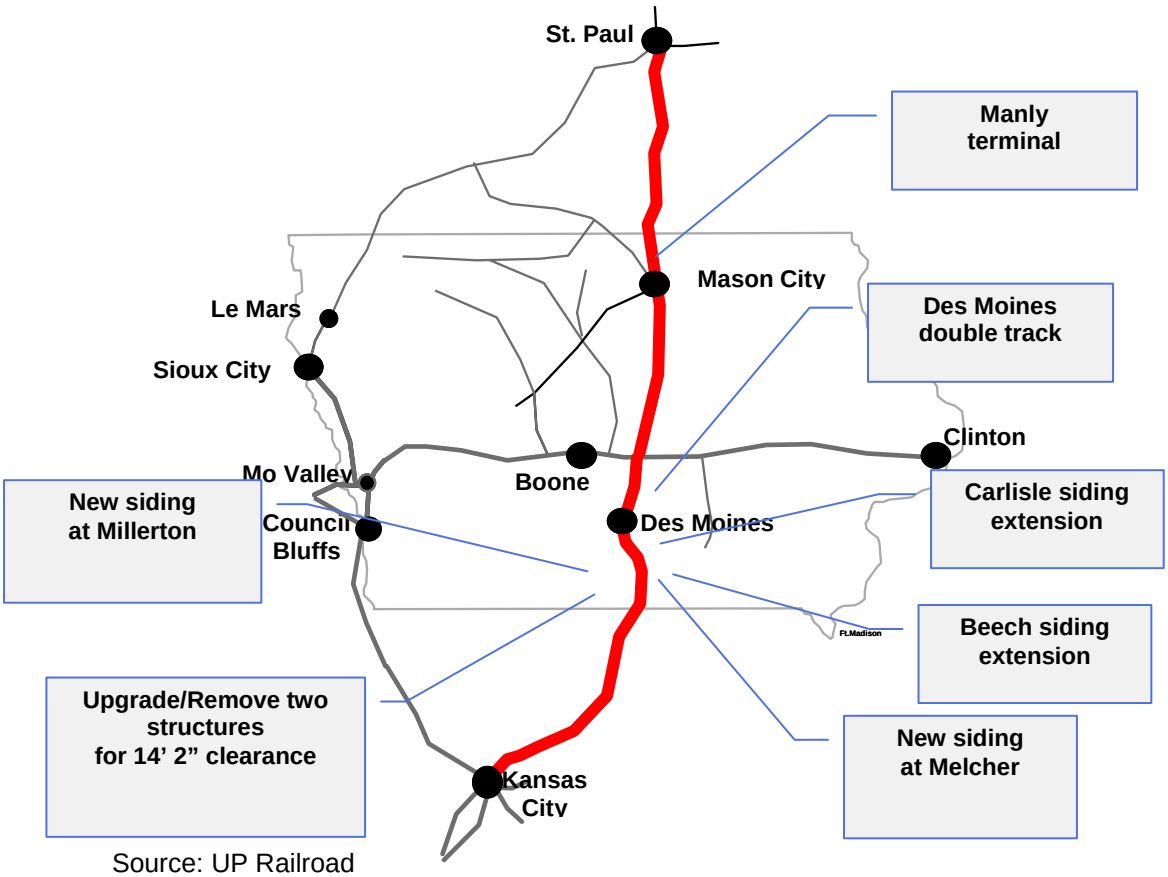
Projects costs

The Phase I project consists of construction of a new rail yard near Low Moor to change train crews on through trains. In September 2009, the UP submitted a TIGER application for $33 million. The total crew change project is estimated to cost $66 million. No state funding was requested.

4.5 UP's Trenton subdivision improvements

Project description

The project consists of a series of improvements to the UP's Trenton subdivision. The project includes two siding extensions, two new sidings, double-tracking through Des Moines, and the upgrading or removal of two structural obstructions.



Source: UP Railroad

Project benefits

The removal of a wooden roadway bridge at Beech, Iowa, and expansion of a truss bridge at Mill Grove, Mo., would remove obstructions that currently prevent shipping most wind energy components on the Trenton subdivision south of Des Moines. Wind energy is expanding rapidly in Iowa with a major wind distribution center at Manly. The obstructions on the Trenton subdivision south of Des Moines require the routing of wind components on less efficient, more circuitous routes. This limits rail service to most wind component manufacturers who might wish to locate south of Des Moines.

The extension and addition of sidings and double-tracking through Des Moines create efficiency for moving freight on this single-track route.

Currently, there are 30-mile stretches of track where trains cannot meet. Freight service cannot be efficiently expanded on this route without the addition and expansion of sidings. The current situation limits the opportunity for economic development along this route for both existing and new business.

In addition to the economic development improvements, other public benefits, such as tax savings and air quality improvement, would be gained from the expansion of freight capacity on the only north-south rail line that provides a direct alternative to I-35.

Project costs
The corridor improvement plan is expected to cost $38.5 million as summarized below. In September 2009, the UP submitted a TIGER application for 50 percent of the project cost. The remaining 50 percent will come from the UP. No state funding was requested.

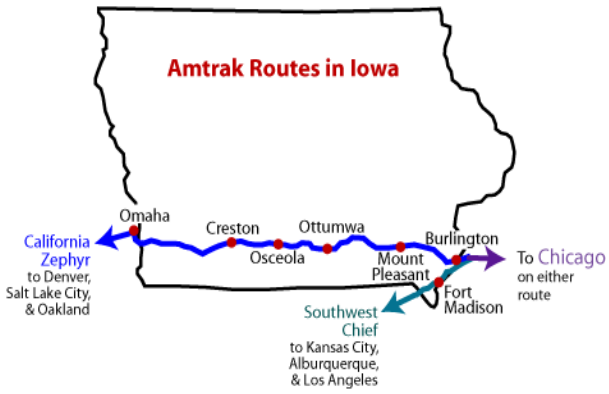
Capital cost summary: UP Trenton subdivision

Project	Cost (in millions)
New siding at Millerton	$ 10.0
New Siding at Melcher	$ 10.0
Beech siding extension	$ 6.0
Carlisle siding extension	$ 6.0
Upgrade/Remove two structures for clearance	$ 1.0
Des Moines main line expansion	$ 5.5
Total	$ 38.5

Source: UP Railroad

Passenger rail projects
The following passenger rail project cost estimates are meant to provide a general estimate. Before any projects are implemented, the cost estimates will need to be reevaluated with more detailed site-specific information. In addition, operating and trackage rights agreements will need to be finalized with Amtrak and freight railroads.

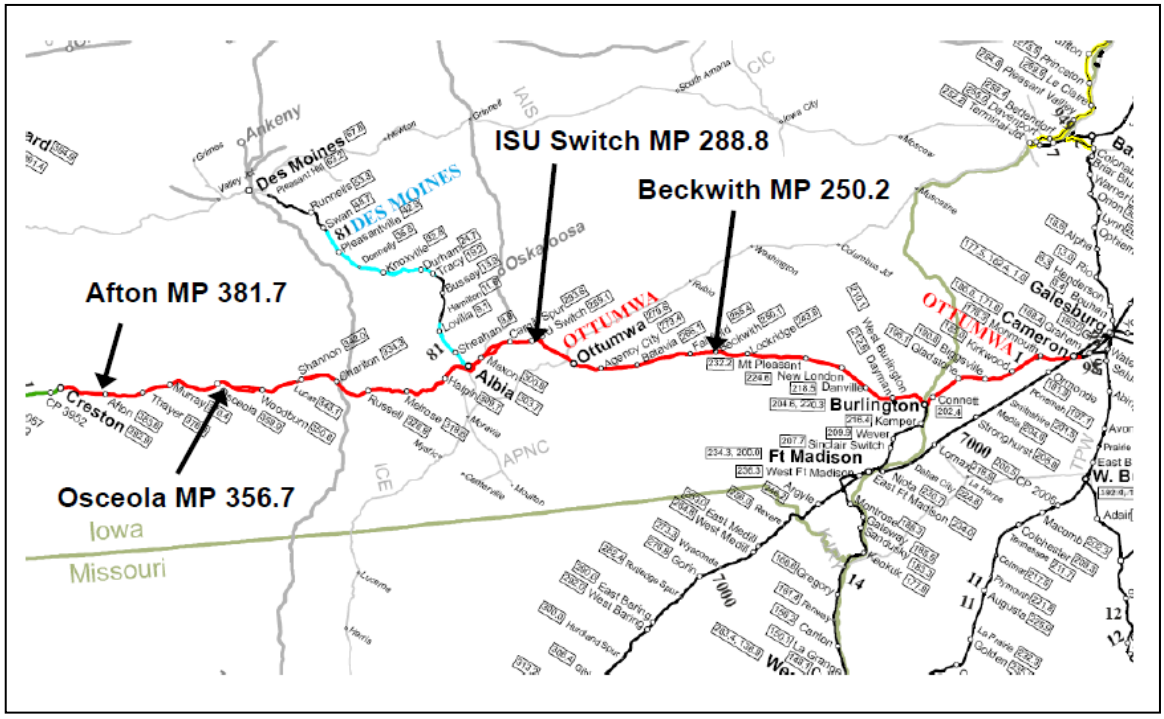
1. BNSF's crossovers, tie and station renewal
Project description
Iowa is currently served by two lines of the National Railroad Passenger Corporation's (more commonly known as Amtrak) rail system. The two Amtrak routes serving Iowa are the California Zephyr and the Southwest Chief. The California Zephyr operates across Iowa as it runs from Chicago to Oakland, Calif., and serves five stops in Iowa along the BNSF's rail line in the southern portion of the state: Burlington, Mount Pleasant, Ottumwa, Osceola, and Creston. The Southwest Chief line runs from Chicago to Los



Angeles, crossing the southeast tip of Iowa with one stop in Fort Madison.

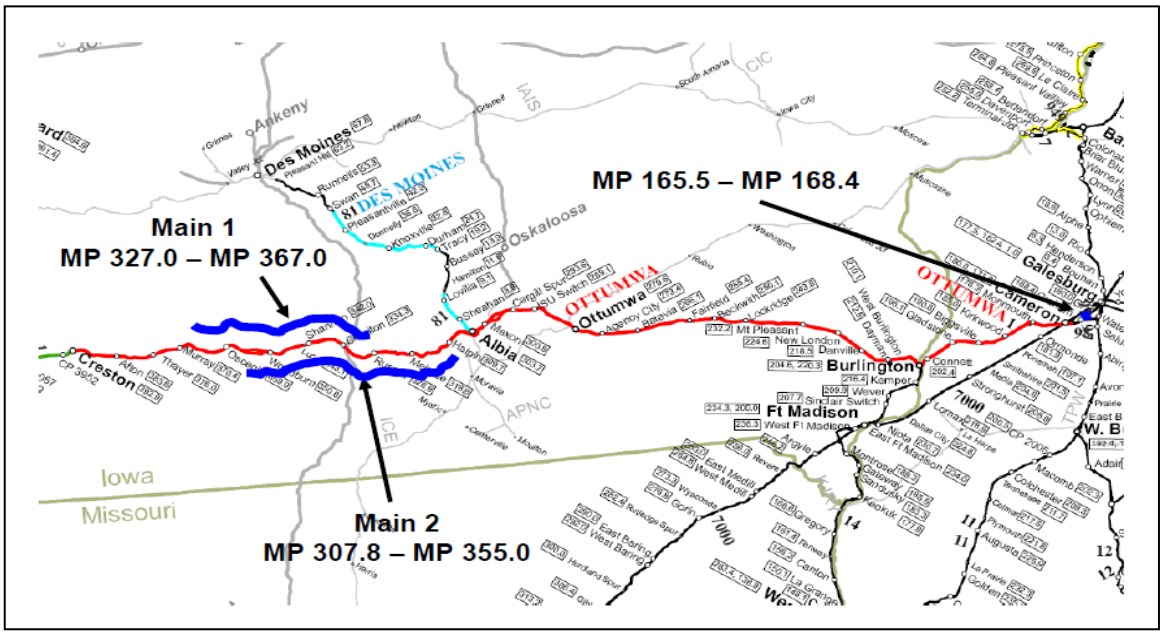
Performance data was reviewed, and delay causes and action steps identified to reduce delays to the California Zephyr Trains 5 and 6 with an objective to improve overall on-time performance. Project work along the California Zephyr route includes the installation of four powered crossovers, replacement of approximately 85,000 ties, undercutting of about 17 miles of track, and improving the depot facilities and amenities in Iowa at Burlington, Fort Madison, Mount Pleasant, Ottumwa, Osceola, and Creston.

Crossover locations



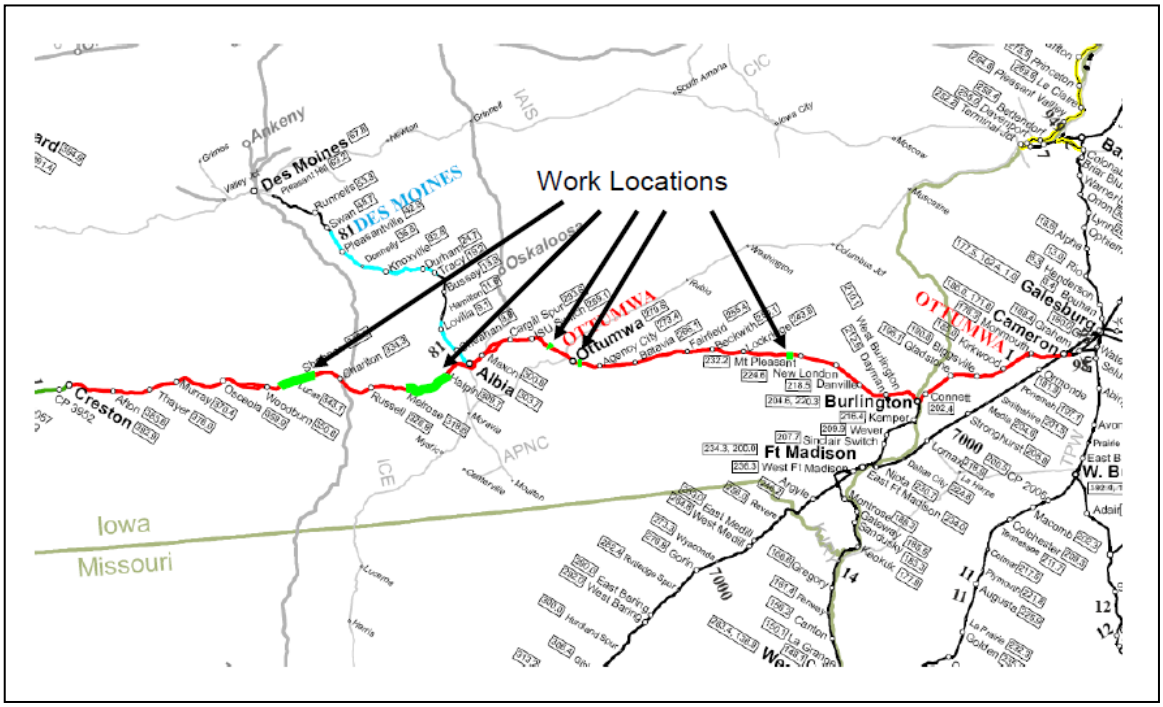
Source: BNSF

Tie replacement



Source: BNSF

Ballast undercutting locations



Source: BNSF

Project benefits
The project will help improve efficiency by allowing trains to meet and pass at the specified locations without having to stop for the crew to manually operate turnouts or reduce speed for slow orders. This will allow for better fuel usage and reduce greenhouse gases by minimizing the acceleration, deceleration and idling of trains. It will also provide for more efficient movement of goods and passengers.

It is estimated that the crossover capital improvement project will improve overall California Zephyr Trains 5 and 6 on-time performances between Chicago and Oakland by 12 percent over current operations, saving about 30 minutes of train delay per trip. This represents a 40 percent improvement in the on-time performance of the California Zephyr. In addition, the track capital maintenance project will result in an average savings of 26 minutes per one-way trip.

Project costs
The corridor improvement plan is expected to cost $52.7 million as summarized below. For everything except the stations, the Iowa DOT submitted two applications totaling $44 million for the High-Speed Intercity Passenger Rail Program. At this time, no state funding is needed.

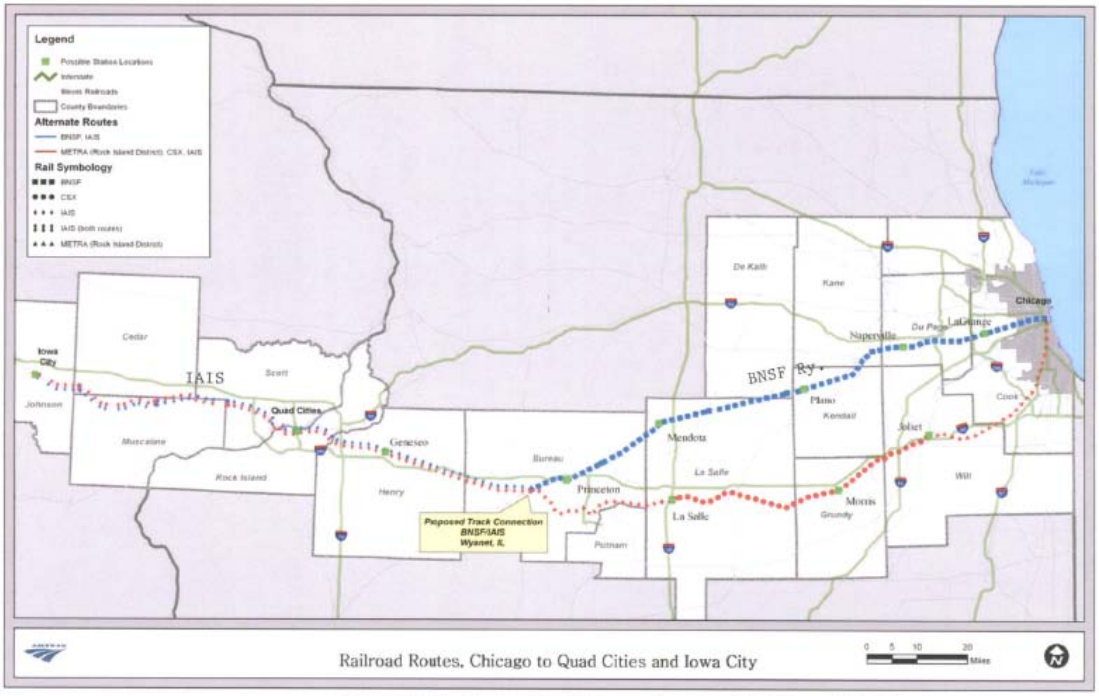
Capital cost summary: BNSF's Ottumwa subdivision

Project	Cost (in millions)
Four powered crossovers	$ 17.3
Tie renewal, ballast undercutting, additional capital maintenance	$ 26.7
Stations	$ 8.7
Total	$ 52.7

Source: BNSF and Iowa Amtrak Community Coalition

2. Chicago to Iowa City
Project description
On Feb. 20, 2007, the Illinois DOT requested Amtrak to do a feasibility study regarding possible service between Chicago and the Quad Cities. On April 3, 2007, the Iowa DOT requested Amtrak extend the study to Iowa City. Completion of the study is an important first step for establishing service on this route and in incremental development of the MWRRI. The feasibility study to the Quad Cities was released Dec. 5, 2007, and the addendum to Iowa City on April 18, 2008. In October 2009, the Iowa DOT submitted a High-Speed Intercity Passenger Rail (HSIPR) Program Application for capital assistance.

Between Chicago and the Quad Cities, the preferred route would use BNSF's track from Chicago to Wyanet, Ill., and then connect to the IAIS to Iowa City. The mileage on this route totals 217.9 miles with maximum authorized timetable speeds of 79 mph. Service would require two train sets, each consisting of one locomotive, one non-powered-control unit or a second locomotive, three coaches, and a food service car. A locomotive, one non-powered-control unit, one coach, and a food service car would be needed as spares.



Source: Amtrak

Train service is based on two daily round-trip frequencies with nine stations. Proposed stations include Chicago, La Grange Road, Naperville, Plano, Mendota, Princeton, Geneseo, and Moline in Illinois; and Iowa City, Iowa. Annual ridership on the full route is estimated at 187,000 passengers per year. A proposed schedule and route summary is shown in the following tables.

Proposed Chicago to Iowa City schedule
Chicago – Princeton – Quad Cities – Iowa City

Westbound								Eastbound	
Morning	Evening							Morning	Evening
Daily	Daily							Daily	Daily
Read down	Read down	Mile						Read up	Read up
9:30 a.m.	6:30 p.m.	0.00	↓	Dp	Chicago, Ill., - CT	Ar	↑	12:00 p.m.	10:00 p.m.
9:47 a.m.	6:47 p.m.		↓	Dp	La Grange Road, Ill.	Dp	↑	11:32 a.m.	9:32 p.m.
10:04 a.m.	7:04 p.m.		↓	Dp	Naperville, Ill.	Dp	↑	11:17 a.m.	9:17 p.m.
10:29 a.m.	7:29 p.m.		↓	Dp	Plano, Ill.	Dp	↑	10:53 a.m.	8:53 p.m.
10:57 a.m.	7:57 p.m.		↓	Dp	Mendota, Ill.	Dp	↑	10:25 a.m.	8:25 p.m.
11:19 a.m.	8:19 p.m.		↓	Dp	Princeton, Ill.	Dp	↑	10:05 a.m.	8:05 p.m.
12:14 p.m.	9:14 p.m.		↓	Dp	Geneseo, Ill.	Dp	↑	9:12 a.m.	7:12 p.m.
12:52 p.m.	9:52 p.m.	158.6	↓	Dp	Moline, Ill.	Dp	↑	8:40 a.m.	6:40 p.m.
2:28 p.m.	11:28 p.m.	217.9	↓	Ar	Iowa City, Iowa	Dp	↑	7:02 a.m.	5:02 p.m.

Source: Amtrak's Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City via Quad Cities

Route summary: Chicago to Iowa City

	Chicago to Quad Cities segment	Quad Cities to Iowa City segment	Total Chicago to Iowa City route
Number of round trips	2	2	2
Route miles	158.6	59.3	217.9
Running time	3 hr 20 min	1 hr 38 min	4 hr 58 min
Maximum timetable speed	79 mph	79 mph	79 mph
Ridership	110,800	76,100	186,900

Source: Amtrak's Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City via Quad Cities

Project benefits

Implementation of passenger rail service can improve mobility, economic competitiveness, and community revitalization; and reduce fuel use and emissions. Passenger rail service will improve access between Iowa and Illinois communities. The BNSF/IAIS route is enhanced by taking advantage of existing Amtrak service on the BNSF portion, as well as the stations at Princeton, Mendota and Naperville. This access supports existing industries, fosters growth in new business and expands the job base. Based on the Midwest Regional Rail System study, service to Iowa City could create more than 600 new permanent jobs in Iowa.

The Quad Cities is a major visitor attraction area. Among the attractions are its scenic Mississippi River frontage, river boating, riverboat casinos, the Rock Island Arsenal, several museums, and other cultural attractions.

The Iowa City area is nationally recognized for the University of Iowa (UI) and its hospitals and clinics. More than 20 percent of the UI's student population of about 30,000 students is from adjoining states, mostly Illinois.

Service to Iowa City would provide a good alternative to auto and air travel that promotes potential environmental benefits, including reduced air pollutant emissions, less land, and fewer habitat and water resource impacts compared to expanding existing highways and airports. Passenger rail service from the Quad Cities to Iowa City would carry 76,100 rides per year – taking 17 million passenger miles off the roadway system. This would equate to 38,050 cars removed from the road system, 120,400 fewer gallons of fuel consumed and 600 fewer tons of greenhouse gases emitted per year.

The State of Illinois and State of Iowa are committed to implementing passenger rail service between Iowa City and Chicago that expands on the green and sustainable environmental benefits discussed above. Examples include the use of hybrid and biofuel-powered locomotives; recycled materials for the construction of rail cars, rail lines and stations; energy-efficient design and construction of stations; and connections to public transit, intercity bus, bicycle, and pedestrian networks. Both states are committed to utilizing new and existing initiatives and programs to support this effort.

Project costs

Based on the proposed schedule, stops and route, the HSIPR application estimated the annual ridership, revenues and operating costs. The operating information is presented in the following table. The annual operating revenues are estimated to cover between 35 percent and 55 percent of the operating expenses. Iowa's share of the operating subsidy would be 27 percent.

Operating cost summary: Chicago to Iowa City
(In year of expenditure)

	2015	2020	2025
Passenger trips	187,000	200,000	220,000
Annual operating revenues	$ 5.0 million	$ 8.5 million	$ 12.1 million
Annual operating expenses	$ 14.3 million	$ 17.8 million	$ 22.2 million
Annual operating subsidy	$ 9.3 million	$ 9.3 million	$ 10.1 million
Cost recover ratio*	0.35	0.48	0.55
Average fare per passenger	$ 26.74	$ 42.50	$ 55.00
Operating subsidy per passenger	$ 49.73	$ 46.50	$ 45.91

*Operating revenues divided by operating expenses.
Source: Chicago to Iowa City HSIPR Program Application

With upgrading to allow train speeds of 79 mph, it is recommended that the remaining jointed rail be replaced, and additional tie replacement and surfacing work be performed on the line. If Amtrak service were to terminate at Iowa City, an overnight storage track of sufficient length with ample parking and certain other improvements would be required. In addition to the track work, there are a number of upfront expenses that would be incurred to initiate service on this route, including stations, support facilities, site work, communications, signaling, locomotives and passenger cars, and professional services (i.e., service development plans, service environmental work, preliminary engineering, and design). These capital costs are summarized in the following table.

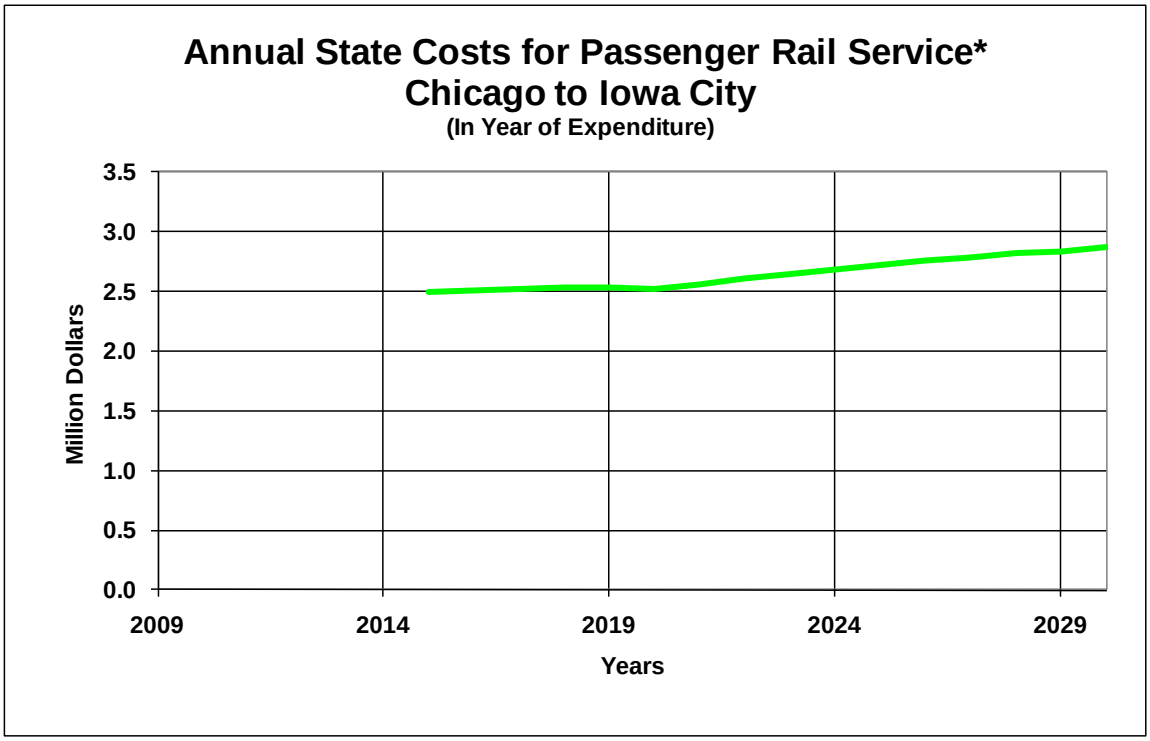
Capital cost summary: Chicago to Iowa City
(In 2010 dollars)

Category	Cost (in millions)
Track structures and track	$ 46.8
Stations, terminals, intermodal	$ 4.5
Support facilities	$ 4.7
Site work, right of way, land, existing improvements	$ 7.8
Communications and signaling	$ 80.4
Vehicles	$ 56.6
Professional services	$ 21.2
Contingency	$ 11.1
Total capital cost	$ 233.1

Source: Chicago to Iowa City HSIPR Program Application

Construction to implement service is expected to begin in 2011 with operation beginning in late 2014, with 2015 being the first full year of operation. The Iowa DOT, along with the Illinois DOT, has submitted a HPIPR Program Application that would cover 100 percent of the capital costs. If the application is approved, Iowa and Illinois

would need to cover the annual operating subsidy. Iowa's share would be 27 percent. As a result, Iowa's share would average $2.7 million per year (from $2.5 million in 2015 to $2.9 million in 2030). Costs would increase at a rate of 4.5 percent per year.



* Includes just operating subsidy.

3. Chicago to Dubuque

Project description

On Aug. 11, 2006, Illinois DOT requested Amtrak prepare a feasibility study regarding the possible service between Chicago-Rockford-Galena in Illinois, and Dubuque, Iowa. The report was released by Amtrak May 16, 2007. The proposed route would use Amtrak's trackage from Chicago Union Station to 21st Street with subsequent routing via the CN to Dubuque. Mileage on this route totals 182.2. Maximum authorized timetable speeds range from 10 mph to 60 mph with the majority of the route at 49 mph. In October 2009, Illinois DOT submitted a HSIPR application for capital assistance.

Proposed service on this route would be coach-only, with no food service. The train would consist of one locomotive and one non-powered-control unit or a second locomotive and two coaches, plus spares.

Source: Amtrak

Train service is based on a single daily round-trip frequency with eight stations. Proposed stations include Chicago, West Elgin, Genoa, Alpine Road, Rockford, Freeport, and Galena in Illinois; and Dubuque, Iowa. Annual ridership on the full route is estimated at about 74,500 passengers with 12,900 riders at Dubuque.

A proposed schedule and route summary is shown in the following tables. The schedule is consistent with the maximum timetable speeds authorized on the route and would not require significant track work, except as described in the track capital costs.

Proposed Chicago – Rockford – Dubuque schedule

Westbound Daily							Eastbound Daily
Read down	Mile						Read Up
6:15 p.m.	0.00	↓	Dp	Chicago, Ill., - Union Station	Ar	↑	10:10 a.m.
7:28 p.m.		↓	Dp	West Elgin, Ill.	Dp	↑	8:38 a.m.
7:54 p.m.		↓	Dp	Genoa, Ill.	Dp	↑	8:12 a.m.
8:22 p.m.		↓	Dp	Alpine Road, Ill.	Dp	↑	7:46 a.m.
8:32 p.m.		↓	Dp	Rockford, Ill.	Dp	↑	7:36 a.m.
9:11 p.m.		↓	Dp	Freeport, Ill.	Dp	↑	6:57 a.m.
10:30 p.m.		↓	Dp	Galena, Ill.	Dp	↑	5:38 a.m.
11:25 p.m.	182.2	↓	Ar	Dubuque, Iowa	Dp	↑	5:00 a.m.

Source: Amtrak's Feasibility Report on Proposed Amtrak Service Chicago-Rockford-Galena-Dubuque

Route summary: Chicago to Dubuque

Number of round trips	1
Route miles	182.2
Running time	5 hr 10 min
Maximum timetable speed	60 mph
Ridership	74,500

Source: Amtrak's Feasibility Report on Proposed Amtrak Service Chicago-Rockford-Galena-Dubuque

Project benefits

Implementation of passenger rail service can improve mobility, economic competitiveness, and community revitalization, and reduce fuel use and emissions. Passenger rail service will improve access between Iowa and Illinois communities. This access supports existing industries, fosters growth of new business and expands the job base.

Dubuque is aggressively redeveloping the downtown property along the Mississippi River. Recent developments have included the construction of a river walk, establishment of a large convention center and hotel complex, construction of a Mississippi River National Riverways Aquarium, and a floating casino.

Service to Dubuque would provide a good alternative to auto and air travel, which promotes potential environmental benefits, including reduced air pollutant emissions, use of less land, and fewer habitat and water resource impacts compared to expanding existing highways and airports. Estimated passenger rail ridership at Dubuque would equal 12,900 rides per year, taking 2.3 million passenger miles off the roadway system. This would equate to 6,450 cars removed from the road system, 14,100 fewer gallons of fuel consumed and 54 fewer tons of greenhouse gases emitted per year.

Project costs

Based on the proposed schedule, stops and the route, the HSIPR application estimated the annual ridership, revenues and operating costs. The operating information is presented in the following table. The annual operating revenues are estimated to cover 34 percent of the operating expenses.

Operating cost summary: Chicago to Dubuque
(In year of expenditure)

	2013	2018	2023
Passenger trips	83,000	83,000	83,000
Annual operating revenues	$ 1.8 million	$ 1.8 million	$ 1.8 million
Annual operating expenses	$ 5.0 million	$ 5.0 million	$ 5.0 million
Annual operating subsidy	$ 3.2 million	$ 3.2 million	$ 3.2 million
Cost recover ratio*	0.36	0.36	0.36
Average fare per passenger	$ 21.69	$ 21.69	$ 21.69
Operating subsidy per passenger	$ 38.55	$ 38.55	$ 38.55

*Operating revenues divided by operating expenses.
Source: Chicago to Dubuque HSIPR Program Application

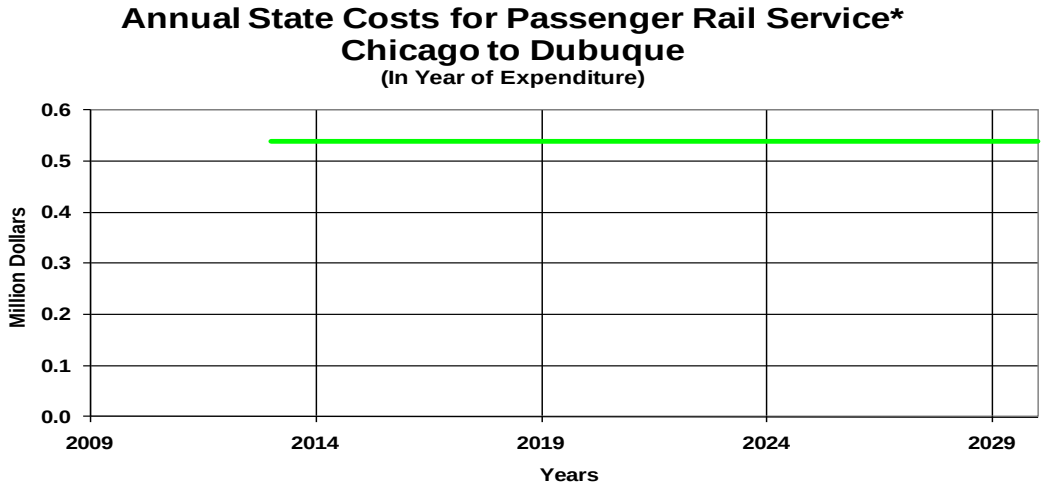
For operation at the current maximum timetable speed, no major track maintenance or upgrading work is recommended, except for track west of Rockford and several segments close to Chicago. Rail on these segments would be replaced. Some minor track work in Dubuque is needed, as well as a small layover facility for use by train crews, storage of equipment and communications. In addition to the track work, there are a number of upfront expenses that would be incurred to initiate service on this route, including stations, support facilities, site work, communications, signaling, locomotives and passenger cars, and professional services (service development plans, service environmental work, preliminary engineering, and design). These capital costs are summarized in the following table.

Capital cost summary: Chicago to Dubuque
(In 2010 dollars)

Category	Cost (in millions)
Track structures and track	$ 35.9
Stations, terminals, intermodal	$ 11.8
Support facilities	$ 0.9
Site work, right of way, land, existing improvements	$ 9.5
Communications and signaling	$ 17.4
Vehicles	$ 46.2
Professional services	$ 15.1
Total capital cost	$ 136.8

Source: Chicago to Dubuque HSIPR Program Application

Construction to implement service is expected to begin in 2011 with operation beginning in 2013. The Iowa DOT, along with the Illinois DOT, has submitted a HSIPR Program Application that would cover 95 percent of the capital costs with the remaining 5 percent from the Illinois Capital Bill. If the application is approved, Iowa would only need to cover its share of the annual operating subsidy, which would be 17 percent. As a result, Iowa's share would average $0.54 million per year from 2013 to 2030.

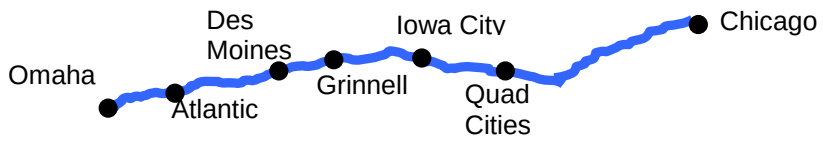


* Includes just operating subsidy.

4. Chicago to Omaha — Iowa City to Omaha segment

Project description

This route would extend service from Chicago to Omaha and complete the MWRRI. Information presented here includes just Iowa City to Omaha, and does not include the Chicago to Iowa City section previously discussed. The proposed route would use IAIS Railroad and a small portion of the UP in the metro areas. Mileage from Iowa City to Omaha totals 256 out of the 474 from Chicago to Omaha, with maximum authorized timetable speeds of 79 mph. The train would consist of one locomotive and one non-powered-control unit or second locomotive and three coaches. In 2008, the Iowa DOT requested Amtrak prepare a feasibility study regarding possible service between Iowa City and Des Moines. The feasibility study has not yet been completed. A feasibility study on the Des Moines to Omaha segment has not been requested at this time.



Train service is based on two daily round-trip frequencies with four additional stations located at Grinnell, Des Moines, Atlantic, and Omaha, in addition to the stations at Moline and Iowa City. A proposed route summary is shown in the following table.

Chicago to Omaha route summary: Iowa City to Omaha Segment

	Total Iowa City to Omaha segment
Number of round trips	2
Route miles	256
Maximum timetable speed	79 mph

Project benefits

Implementation of passenger rail service can improve mobility, economic competitiveness, and community revitalization, and reduce fuel use and emissions. Passenger rail will improve access between Iowa and Illinois communities. This access supports existing industries, fosters growth on new business and expands the job base. Based on the Midwest Regional Rail System study, service from Iowa City to Omaha could create about 360 new permanent jobs in Iowa.

Service from Iowa City to Omaha would provide a good alternative to auto and air travel that promotes potential environmental benefits, including reduced air pollutant emission, less land use, and fewer habitat and water resource impacts compared to expanding existing highways and airports. Based on the MWRRI, passenger rail service from Iowa City to Omaha would carry an estimated 164,000 rides per year, thus taking 63.3 million passenger miles off the roadway system. This would equate to 93,600 cars removed from the road system, 393,500 fewer gallons of fuel consumed and 1,560 fewer tons of greenhouse gases emitted per year.

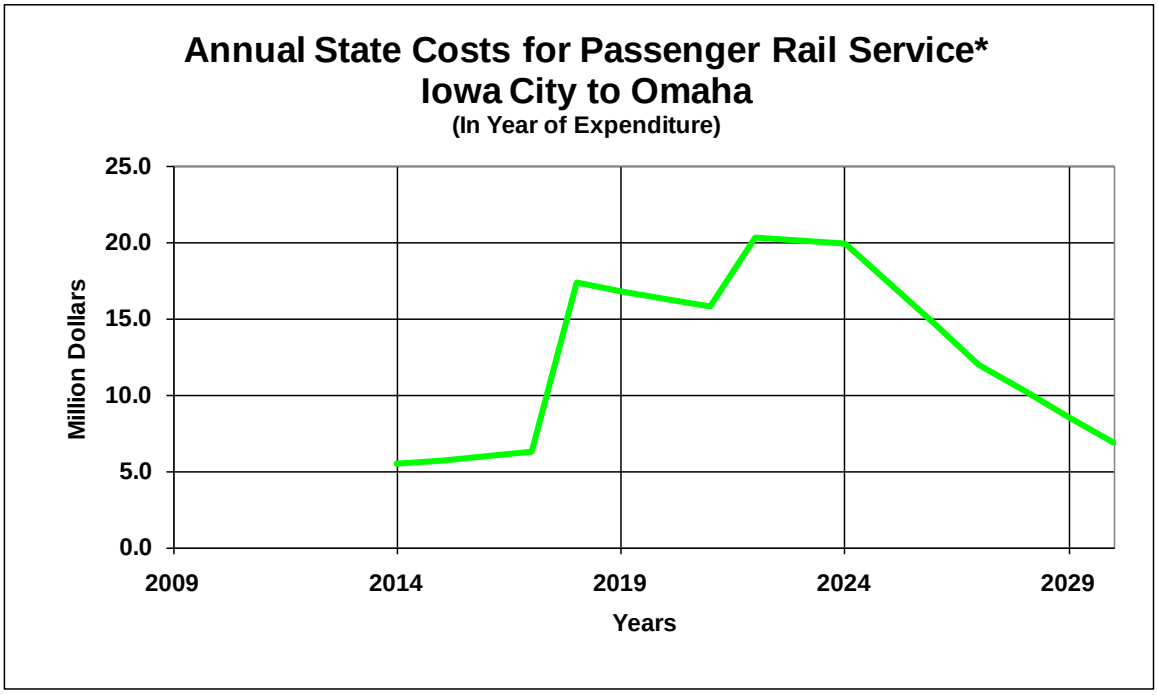
Project costs

The estimated capital and operating costs to implement service from the Iowa City to Omaha segment are summarized in the following table. The cost to upgrade the track to handle train speeds to 79 mph was estimated based on the Chicago to Iowa City HSIPR application. The track work would include rail replacement, tie replacement, surfacing, miscellaneous other track and bridge work, and crossing and siding improvements. Estimated equipment costs were based on two roundtrips per day from Iowa City to Omaha, requiring two train sets. In addition to the track work, there are a number of upfront expenses that would be incurred to initiate service on this route, including stations, support facilities, site work, communications, signaling, locomotives and passenger cars, and professional services (service development plans, service environmental work, preliminary engineering, and design). These capital costs are summarized in the following table. It is assumed that parties other than Amtrak will provide station facilities, including platforms, parking and waiting areas. Operating subsidy was also estimated from the Chicago to Iowa City Amtrak HSIPR application.

Capital and operating cost summary: Iowa City to Omaha segment
(In 2010 dollars)

	Total cost (in millions)	State share (percentage)	State costs (in millions)
Track improvements	$ 183.1	20	$ 36.6
Train control	$ 116.1	20	$ 23.2
Layover facility	$ 8.1	20	$ 1.6
Stations	$ 9.6	0	---
Equipment	$ 113.1	20	$ 22.6
Total capital	$ 430.0	20	$ 84.0
Operating subsidy	$ 16.1	100	$ 16.1

Assuming an 80 percent federal and 20 percent state match program, construction to implement service from Iowa City to Des Moines is estimated to begin in 2014; 2018 for the Des Moines to Omaha segment or sooner based on funding availability. Operation is estimated to begin in 2018 from Iowa City to Des Moines, and 2022 from Des Moines to Omaha. Iowa's share would be 20 percent of the capital costs for track improvements, layover facilities and mobilization costs, and 100 percent of the operating support for the portion of the track in Iowa. The station costs were assumed to be a local responsibility. In addition, operating revenues were assumed to equal operating costs 10 years after startup consistent with the MWRRI. As a result, Iowa's share would average $13.4 million per year (from $10.1 million in 2014 to as high as $21.5 million in 2022, to $3.1 million in 2030, assuming that costs would increase at a rate of 4.5 percent per year).

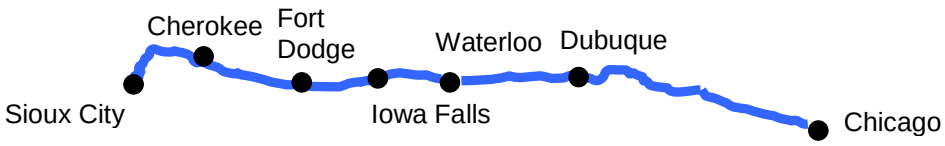


* Includes both capital and operating costs.

5. Chicago to Sioux City — Dubuque to Sioux City segment

Project description

This route would extend service to Sioux City, Iowa, from the Chicago to Dubuque proposed service. Information presented here is just for the Dubuque to Sioux City segment and does not include the Chicago to Dubuque information discussed earlier. The proposed route would use CN railroad. Mileage on this segment totals 330, with maximum authorized timetable speeds of 79 mph. The train would consist of one locomotive and one non-powered-control unit or a second locomotive and three coaches. In 2008, Iowa DOT requested Amtrak prepare a feasibility study regarding possible service between Dubuque and Waterloo. The feasibility study is not yet complete. No feasibility study has been requested for Waterloo to Sioux City.



Train service is based on two daily round-trip frequencies, with six additional stations in Iowa located at Waterloo, Iowa Falls, Fort Dodge, Cherokee, Sioux City, and Dubuque. A proposed route summary is shown in the following table.

Route summary: Dubuque to Sioux City segment

	Dubuque to Sioux City segment
Number of round trips	2
Route miles	330
Maximum timetable speed	79 mph

Project benefits
Implementation of passenger rail service can improve mobility, economic competitiveness, and community revitalization, and reduce fuel use and emissions. Passenger rail will improve access between Iowa and Illinois communities. This access supports existing industries, fosters growth on new business and expands the job base.

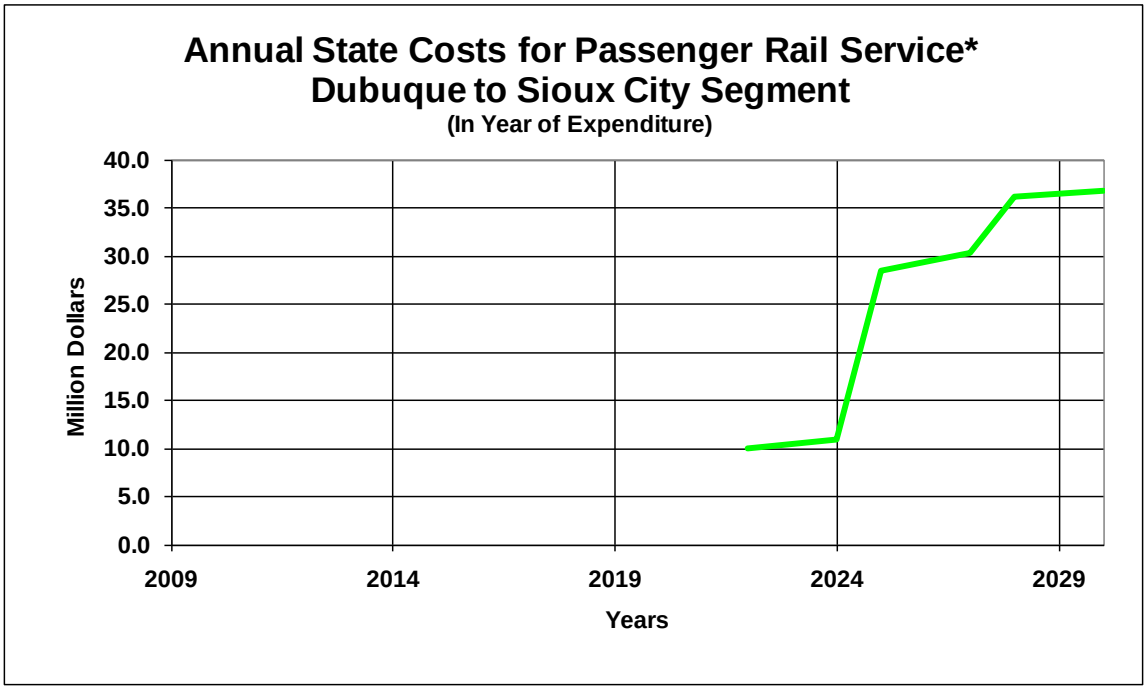
Service from Dubuque to Sioux City would provide a good alternative to auto and air travel that promotes potential environmental benefits, including reduced air pollutant emissions, less land use, and fewer habitat and water resource impacts compared to expanding existing highways and airports. No ridership estimates are available for this route.

Project costs
The estimated capital and operating costs to implement service from Dubuque to Sioux City are summarized in the following table. The cost to upgrade the track to handle train speeds to 79 mph was based on the Chicago to Iowa City HSIPR application. Track work would include rail replacement, tie replacement, surfacing, miscellaneous other track and bridge work, and crossing and siding improvements. In addition to the track work, there are a number of upfront expenses that would be incurred to initiate service on this route, including stations, support facilities, site work, communications, signaling, locomotives and passenger cars, and professional services (service development plans, service environmental work, preliminary engineering, and design). It is assumed that parties other than Amtrak will provide all station facilities, including platforms, parking and waiting areas. Estimated equipment costs were based on two roundtrips per day from Dubuque to Sioux City requiring two train sets. Operating subsidy was also estimated from the Chicago to Iowa City HSIPR application.

Capital and operating costs summary: Dubuque to Sioux City segment
(In 2010 dollars)

	Total cost (millions)	State share (percentage)	State costs (millions)
Track improvements	$ 236.0	20	$ 47.2
Train control	$ 80.7	20	$ 16.1
Layover facility	$ 8.1	20	$ 1.6
Stations	$ 16.0	0	---
Equipment	$ 113.1	20	$ 22.6
Total capital	$ 453.9	20	$ 87.5
Operating subsidy	$ 16.9	100	$ 16.9

Assuming an 80 percent federal and 20 percent state match program, construction to implement service is estimated to begin in 2022 from Dubuque to Waterloo, and in 2025 from Waterloo to Sioux City (or sooner based on available funds). Operation is estimated to begin in 2025 from Dubuque to Waterloo and in 2028 from Waterloo to Sioux City. Iowa's share would be 20 percent of the capital costs and 100 percent of the operating support. The station costs were assumed to be a local responsibility. As a result, Iowa's share would average $25.5 million per year (from $10.1 million in 2022 to $36.8 million in 2030) assuming that costs would increase at a rate of 4.5 percent per year.



* Includes both capital and operating costs.

6. Minneapolis to Kansas City via Des Moines

Project description

This route would extend passenger rail service from Minneapolis to Kansas City via Des Moines. The proposed route would use UP track. Mileage on this route totals 485 (230 in Iowa), with maximum authorized timetable speeds of 79 mph. The train would consist of one locomotive and one non-powered-control unit or a second locomotive and three coaches.

Train service is based on two daily round-trip frequencies with proposed Iowa stations located at Mason City, Iowa Falls and Des Moines. A proposed route summary is shown in the following table.

Route summary: Minneapolis to Kansas City via Des Moines

	Total Minneapolis to Kansas City via Des Moines route
Number of round trips	2
Total route miles	485
Iowa route miles	230
Maximum timetable speed	79 mph

Project benefits
Implementation of passenger rail service can improve mobility, economic competitiveness and community revitalization, and reduce fuel use and emissions. Passenger rail service will improve access between Iowa and Minnesota-Missouri communities. This access supports existing industries, fosters growth on new business and expands the job base.

Service from Minneapolis to Kansas City via Des Moines would provide a good alternative to auto and air travel that promotes potential environmental benefits, including reduced air pollutant emissions, less land use, and fewer habitat and water

resource impacts compared to expanding existing highways and airports. No ridership estimates are available for this route.

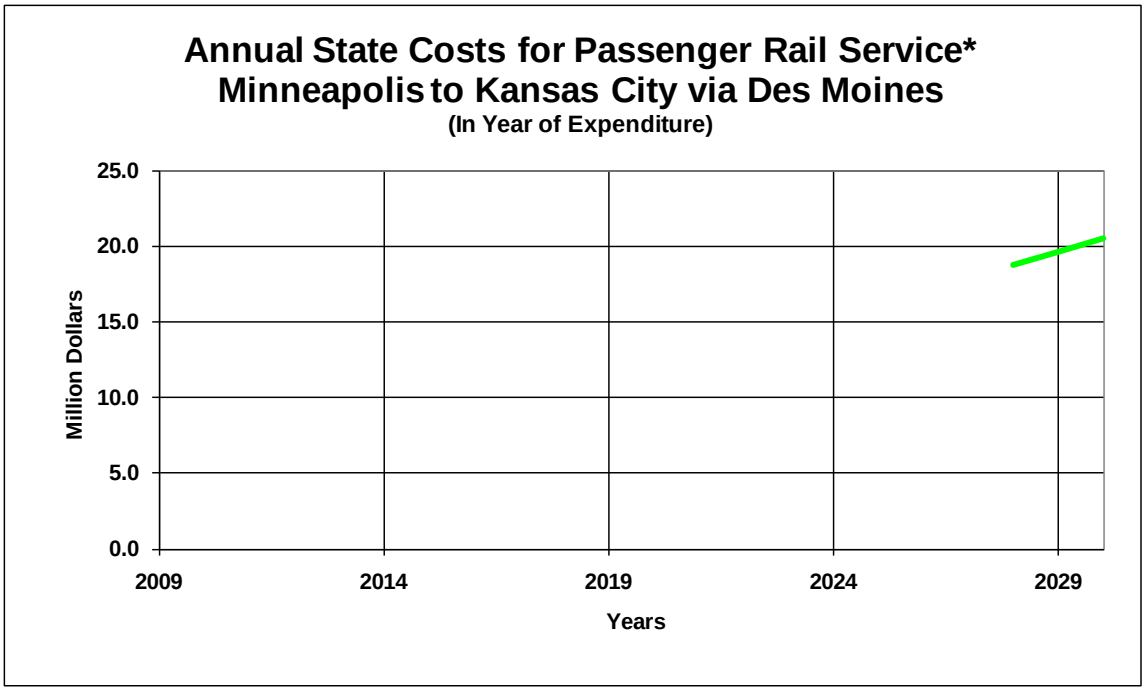
Project costs

The estimated capital and operating costs to implement service from Minneapolis to Kansas City via Des Moines are summarized in the following table. The cost to upgrade the track to handle train speeds to 79 mph was based on the Chicago to Iowa City HSIPR application. Track work would include rail replacement, tie replacement, surfacing, miscellaneous other track and bridge work, and crossing and siding improvements. In addition to the track work, there are a number of upfront expenses that would be incurred to initiate service on this route, including stations, support facilities, site work, communications, signaling, locomotives and passenger cars, and professional services (service development plans, service environmental work, preliminary engineering, and design). It is assumed that parties other than Amtrak would provide station facilities, including platforms, and parking and waiting areas. Estimated equipment costs were based on two roundtrips per day from Minneapolis to Kansas City via Des Moines, requiring two train sets. Operating subsidy was also estimated from the Chicago to Iowa City HSIPR application.

Capital and operating costs summary: Minneapolis to Kansas City via Des Moines
(In 2010 dollars)

	Total cost (millions)	State share (percentage)	State costs (millions)
Track improvements	$ 164.5	20	$ 32.9
Train control	$ 56.2	20	$ 11.2
Layover facility	$ 4.1	20	$ 0.8
Stations	$ 6.4	0	---
Equipment	$ 56.6	20	$ 11.3
Total capital	$ 287.8	20	$ 56.2
Operating subsidy	$ 4.4	100	$ 4.4

Assuming an 80 percent federal and 20 percent state match program, construction to implement service is estimated to begin in 2028, with operation beginning in 2031 or sooner depending on available funds. Iowa's share would be 20 percent of the capital costs and 100 percent of the operating support for the portion in Iowa. The station costs are assumed to be a local responsibility. As a result, Iowa's share would average $19.6 million per year (from $18.8 million in 2028 to $20.5 million in 2030, assuming that costs would increase at a rate of 4.5 percent per year).



* Includes both capital and operating costs.

7. Minneapolis to Kansas City via Omaha

Project description

This route would extend passenger rail service from Minneapolis to Kansas City via Omaha. The proposed route would use the BNSF. Mileage on this route totals 674 (79 in Iowa) with maximum authorized timetable speeds of 79 mph. The train would consist of one locomotive and one non-powered-control unit or a second locomotive and three coaches.

Train service is based on two daily roundtrips with proposed Iowa stations located in Omaha and Sioux City. A proposed route summary is shown in the following table.

Route summary: Minneapolis to Kansas City via Omaha

	Total Minneapolis to Kansas City via Des Moines route
Number of round trips	2
Total route miles	674
Iowa route miles	79
Maximum timetable speed	79 mph

Project benefits
Implementation of passenger rail service can improve mobility, economic competitiveness and community revitalization, and reduce fuel use and emissions. Passenger rail service will improve access between Iowa, Missouri and Nebraska communities. This access supports existing industries, fosters growth of new business and expands the job base.

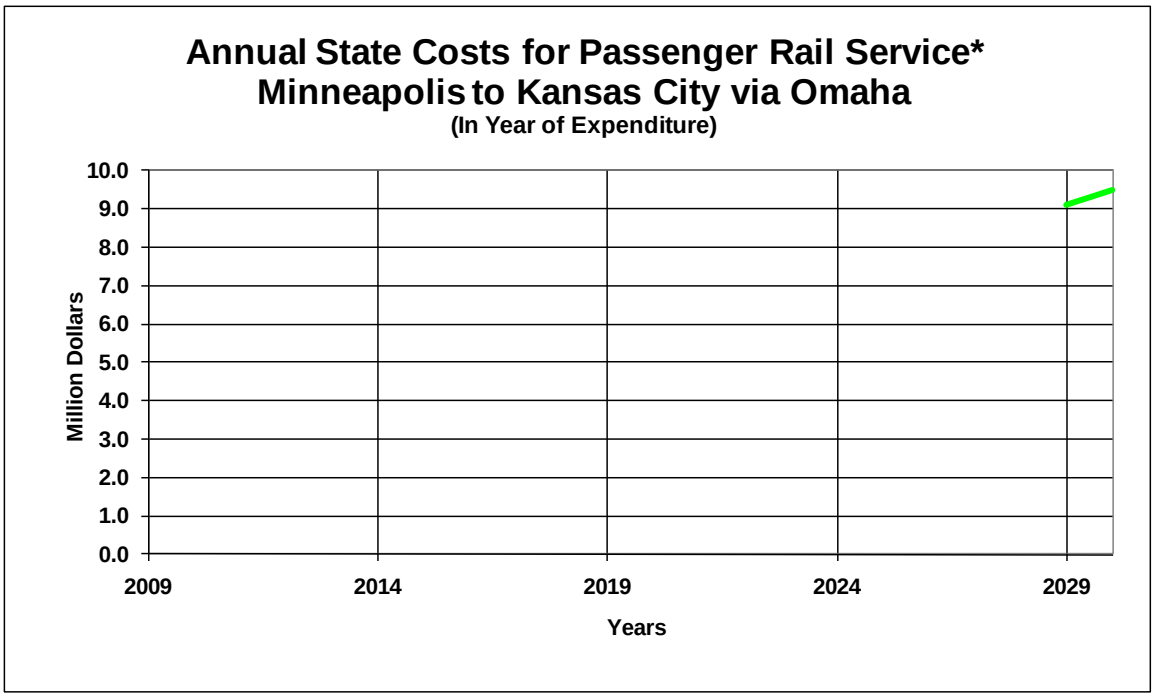
Service from Minneapolis to Kansas City via Omaha would provide a good alternative to auto and air travel that promotes potential environmental benefits, including reduced air pollutant emissions, less land use, and fewer habitat and water resource impacts compared to expanding existing highways and airports. No ridership estimates are available for this route.

Project costs
The estimated capital and operating costs to implement service from Minneapolis to Kansas City via Omaha are summarized in the following table. The cost to upgrade the track to handle train speeds to 79 mph was based on the Chicago to Iowa City HSIPR application. Track work would include rail replacement, tie replacement, surfacing, miscellaneous other track and bridge work, and crossing and siding improvements. In addition to the track work, there are a number of upfront expenses that would be incurred to initiate service on this route, including stations, support facilities, site work, communications, signaling, locomotives and passenger cars, and professional services (service development plans, service environmental work, preliminary engineering, and design). It is assumed that parties other than Amtrak would provide station facilities, including platforms, and parking and waiting areas. Estimated equipment costs were based on two roundtrips per day from Minneapolis to Kansas City via Omaha, requiring two train sets. Operating subsidy was also estimated from the Chicago to Iowa City HSIPR application.

Capital and operating costs summary: Minneapolis to Kansas City via Omaha
(In 2010 dollars)

	Total cost (in millions)	State share (percentage)	State costs (in millions)
Track improvements	$ 56.5	20	$ 11.3
Train control	$ 19.3	20	$ 3.9
Layover facility	$ 4.1	20	$ 0.8
Stations	---	0	---
Equipment	$ 56.6	20	$ 11.3
Total capital	$ 136.5	20	$ 27.3
Operating subsidy	$ 4.1	100	$ 4.1

Assuming an 80 percent federal and a 20 percent state match program, construction to implement service is estimated to begin in 2029, with operation beginning in 2032 or sooner, depending on available funds. Iowa's share would be 20 percent of the capital costs and 100 percent of the operating support for the portion in Iowa. The station costs were assumed to be a local responsibility. As a result, Iowa's share would equal $9.1 million in 2029 and $9.5 million in 2030, assuming that costs would increase at a rate of 4.5 percent per year.



* Includes both capital and operating costs.

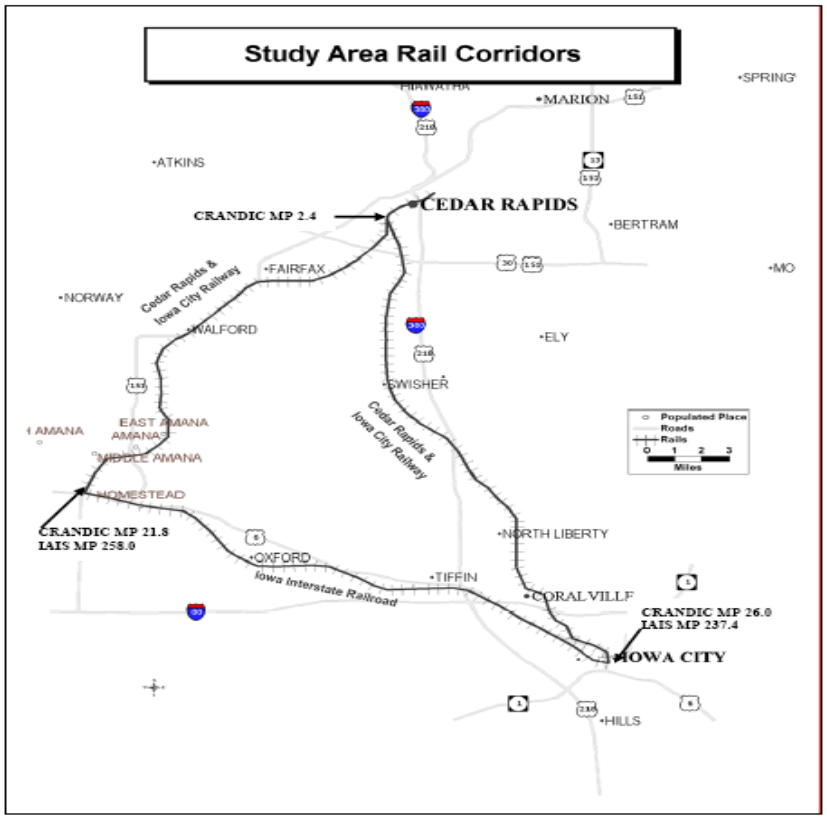
Commuter routes

Currently, no commuter rail passenger service is operating in Iowa. In 2006, Five Seasons Transportation & Parking in Cedar Rapids and the Johnson County Council of Governments for the Cedar Rapids, Iowa City and Amana area commissioned a commuter rail passenger study. In 2000, a commuter rail study was completed for the Des Moines metropolitan area. The results of these studies are summarized below. The state's role for commuter passenger rail service would be similar to its role for intercity passenger rail service. The state would participate in the capital and operating costs, but not in the stations, which are deemed to be a local responsibility.

1. Cedar Rapids, Iowa City and Amana Colonies area

Project description

The purpose of the Cedar-Iowa River Rail Transit Project Feasibility Study was to determine the feasibility of establishing regularly scheduled commuter rail service and/or special event excursion rail service in the Cedar Rapids and Iowa City area. The study examined three, distinct, existing rail line corridors connecting Cedar Rapids, Iowa City and the Amana Colonies as shown in the following map.



Source: Cedar-Iowa River Rail Transit Project Feasibility Study

Description of corridors: Cedar Rapids, Iowa City and Amana Colonies

Corridor	Railroad	Miles	Existing maximum operating Speed	Freight Service
Cedar Rapids – Iowa City/Hills	CIC	33.2	20 mph	Twice weekly
Iowa City – Amana Colonies	IAIS	21.1	25 mph	Daily
Amana Colonies – Cedar Rapids	CIC*	21.8	20 mph	Not available

CIC = Cedar Rapids and Iowa City Railway Co.
IAIS = Iowa Interstate Railroad Ltd.
* IAIS also operates over this corridor
Source: Cedar-Iowa River Rail Transit Project Feasibility Study

Project benefits
After an initial examination of all three rail routes, three potential services were selected for detailed evaluation, including:

- Special event, excursion service.
- Daily commuter services between The Eastern Iowa Airport and Iowa City, with a bus connection to downtown Cedar Rapids.
- Daily commuter services between North Liberty and Iowa City.

The special event excursion service could be tied to area sports, entertainment and cultural events, or focus on the rail trip itself as entertainment. Daily commuter service would target people making regular trips to work, school, shopping or entertainment. These services would provide an alternative to the automobile and help create some transit-dependent development along the corridor between Cedar Rapids and Iowa City.

Commuter and special event excursion service would provide a good alternative to auto travel that promotes potential environmental benefits, including reduced air pollutant emissions, less land use, and fewer habitats and water resource impacts compared to expanding existing highways. Passenger rail service is expected to carry 9,400 rides by 2030, taking 200,000 passenger miles off the roadway system. This would equate to 6,800 cars removed from the road system, 1,330 fewer gallons of fuel consumed and six fewer tons of greenhouse gases emitted per year.

Project costs
Characteristics of the excursion and regular service options are summarized in the following table.

Annual operating costs: Cedar Rapids, Iowa City and Amana Colonies
(In 2006 dollars)

Service	Year	Ridership	Annual operating costs	Operating cost per passenger
Special event excursion service	2006	Up to 6,046	$ 25,000	$ 4.13
Vintage excursion service	2006	Up to 75	$ 20,000	$ 266.67
The Eastern Iowa Airport – Iowa City commuter service	2006	837	$ 5,014,000	$ 5,990.44
	2030	1,991	$ 11,960,000	$ 6,007.03
North Liberty – Iowa City commuter service	2006	742	$ 4,078,000	$ 5,495.96
	2030	1,336	$ 6,797,000	$ 5,087.57

Source: Cedar-Iowa River Rail Transit Project Feasibility Study

Track infrastructure improvements are recommended to coincide with various service plans, matching improvements with train frequencies and operating speeds. Infrastructure improvements include upgrades to the track structure, construction of stations, parking lots and layover tracks. These track improvements would enable reliable and comfortable rail passenger services to be provided. The costs are summarized in the following table.

Capital costs: Cedar Rapids, Iowa City and Amana Colonies
(In 2006 dollars)

Service	Year	Track and bridges	Equipment	Stations and layover facilities	Total cost
Special event excursion service	2006	$25,000	$3,000	$15,000	$43,000
Vintage excursion service	2006	$25,000	$400,000	$15,000	$440,000
Eastern Iowa Airport – Iowa City commuter service	2006	$4,107,000	$4,500,000	$12,800,000	$21,407,000
	2030**	$14,981,000	$7,500,000	$12,800,000	$35,281,000
North Liberty – Iowa City commuter service	2006	$1,448,000	$8,400,000	$8,800,000	$18,648,000
	2030**	$6,615,000	$12,600,000	$8,800,000	$28,015,000

* Does not include rail replacement on the Hills line.
** Similar to 2006 except that all rail weighing less than 112 pounds per yard is replaced.
Source: Cedar-Iowa River Rail Transit Project Feasibility Study

Findings of the study indicated that the excursion service, either special event or regularly scheduled tours, is an option that is feasible to pursue immediately. The regular commuter service options are more expensive and the timing of implementation must be decided by the communities as demand grows and funding becomes available. Final recommendations from the study included the following.

- **Feasible today:** special event excursions and vintage excursions
- **Feasible in three to five years:** commuter service from North Liberty to Iowa City
- **Feasible in six to 12 years:** commuter service from The Eastern Iowa Airport to Iowa City

The operating and capital costs for the commuter service are summarized in the following table.

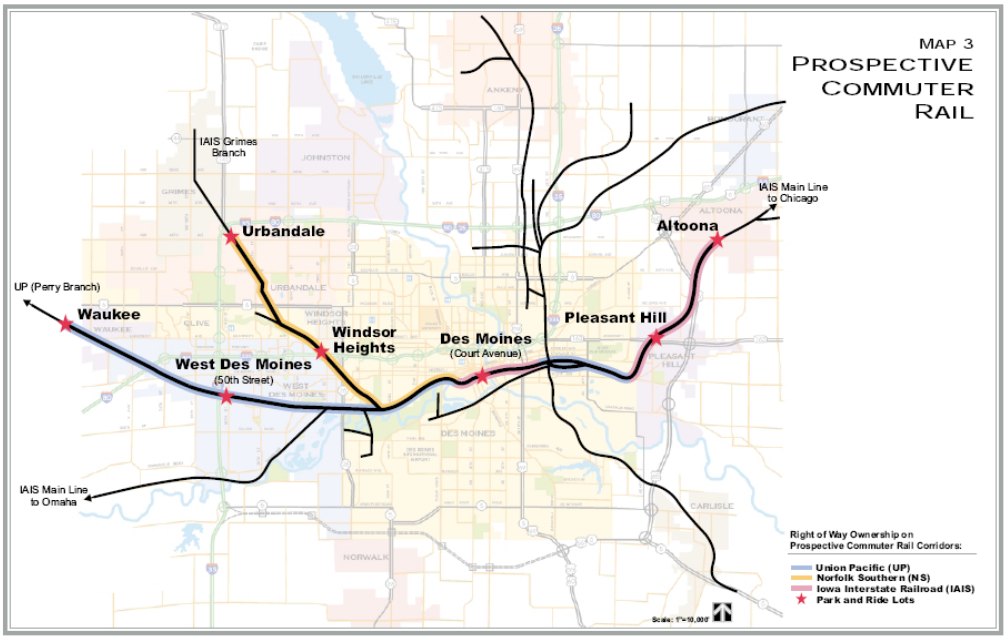
Capital and operating costs summary:
Cedar Rapids, Iowa City and Amana Colonies commuter rail

	Total cost (in millions)	State share (percentage)	State costs (in millions)
Track upgrades	$ 1.4	33	$ 0.5
Equipment	$ 8.4	33	$ 2.8
Stations	$ 8.8	0	---
Total capital	$18.6		$ 3.3
Operating subsidy	$ 6.8	33	$ 2.3

2. Des Moines area commuter service

Project description

The purpose of the Commuter Rail Feasibility Study for the Des Moines Metropolitan Area was to determine the feasibility of establishing regularly scheduled commuter rail service in the area. The study was completed in June 2000, and examined a number of rail corridors as shown in the following map.



Source: Commuter Rail Feasibility Study for the Des Moines Metropolitan Area

System characteristics

- 25-mile system running from Waukee and Urbandale to Des Moines and Altoona
- Initiate a downtown shuttle bus service
- 45-minute headways
- Operate 6-9 a.m. and 3-6 p.m.
- Five train sets each containing a locomotive and two coach cars
- Seven stations needed
- Contract out rolling stock maintenance

Project benefits
The benefits for a commuter rail system in the Des Moines area included the following.

- A low-cost commuter rail system
- Short-term relief to the 2001-2006 reconstruction of I-235 attracting enough riders to alleviate traffic congestion
- Provide a long-term effective travel alternative by reducing freeway vehicle miles of travel by 10 percent
- Operational by 2003
- Use conventional locomotive and passenger car technologies
- Provide service during morning and afternoon peak periods.

Based on these characteristics and the metro travel demand model, the study estimated 1,299 passengers in 2005 and 2,014 passengers in 2025. These ridership levels would have provided only minimal traffic congestion mitigation during I-235 reconstruction.

Commuter service would provide a good alternative to auto travel that promotes potential environmental benefits, including reduced air pollutant emissions, less land use, and fewer habitats and water resource impacts compared to expanding existing highways. Passenger rail service is expected to carry 2,014 rides by 2025, taking 14,000 passenger miles off the roadway system. This would equate to 1,680 cars removed from the road system, 92 fewer gallons of fuel consumed and 1 fewer ton of greenhouse gases emitted per year.

Project costs
The capital costs to implement the commuter rail was estimated at $63.2 million, including track upgrades, purchase of rolling stock, feeder buses, stations, and park-n-ride lots. These costs are shown in the following table.

Capital costs: Des Moines Metro Area

Category	Costs (in millions)
Track upgrades	$ 41.5
Purchase rolling stock	$ 18.0
Feeder buses	$ 2.6
Stations and park/ride lots	$ 1.1
Total	$ 63.2

Source: Commuter Rail Feasibility Study for the Des Moines Metropolitan Area

The financial analysis is shown in the following table. The revenue and cost estimates are based on experience from other operating commuter rail systems. A fare of $2 per trip was used, which resulted in the fare box revenues covering 7 percent of operating costs.

Operating cost summary: Des Moines Area for 2005

Category	Costs (in millions)
Revenues	$ 0.53
Operating costs	$ 7.49
Operating deficit	$ 6.96

Source: Commuter Rail Feasibility Study for the Des Moines Metropolitan Area

The study concluded that commuter rail for Des Moines is technically feasible, but it was not economically feasible. It would not achieve the goal of reducing vehicle miles traveled by 10 percent.

Capital and operating cost summary: Des Moines commuter rail

Category	Total cost (in millions)	State share (percentage)	State costs (in millions)
Track upgrades	$ 41.5	33	$ 13.7
Rolling stock	$ 18	33	$ 5.9
Feeder buses	$ 2.6	33	$ 0.8
Stations	$ 1.1	0	---
Total capital	$ 63.2		$ 20.4
Operating subsidy	$ 6.9	33	$ 2.3

Rail investment costs

Implementation of an effective, productive Iowa rail system will require strategic investments in track upgrades, spur tracks, passenger equipment, stations, and operations. A summary of the investment costs for Iowa are shown below for 2009 to 2030 in future year dollars. Future year's dollars are dollars based on the year in which the investment expenditure is to be made.

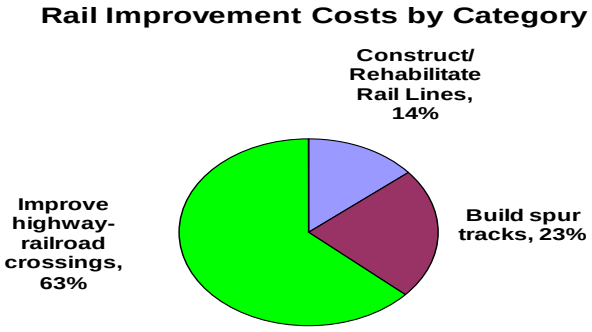
Rail freight

The total cost to implement rail freight investment actions outlined in this plan would average $65.4 million per year from 2009 to 2030. Iowa's share would be $26.5 million per year. Private railroads operating in Iowa invest $435 million annually to maintain and improve the rail lines in the state.

Average annual rail costs
(Future dollars in millions)

Type	Total costs (in millions)	State costs (in millions)
Construct/Rehabilitate rail lines	$ 11.2	$ 3.7
Build spur tracks	$ 18.0	$ 6.0
Improve highway-rail crossings	$ 36.2	$ 16.8
Total	$ 65.4	$ 26.5

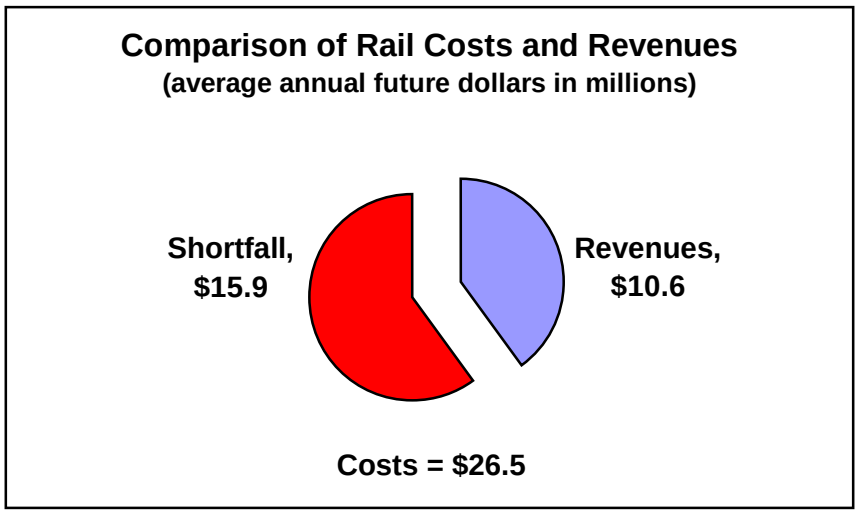
The majority of the $26.5 million per year state share is highway-rail crossing improvements at 63 percent, with spur track construction at 23 percent and track upgrades at 14 percent.



During the 2009 session, the Iowa Legislature appropriated $1.5 million for 2010, $2 million for 2011 and $2 million for 2012 to the RRLGP. For 2013, it was assumed that the RRLGP would be funded at $3 million. The $3 million would increase each year from 2014 to 2030 to keep up with inflation. On average, there is $10.6 million per year in state and federal funding for rail freight service in Iowa. The Railroad Revolving Loan and Grant Program Fund used to upgrade rail lines and build spur tracks accounts for a majority of this funding at $10.6 million per year.

Average annual freight rail revenues
(Future dollars in millions)

Source	Iowa DOT revenues (in millions)
Railroad Revolving Loan and Grant Program Fund	$ 4.0
Railway-Highway Grade Crossing Safety Fund (federal-aid)	$ 4.2
Highway-Railroad Grade Crossing Surface Repair Fund (state funded)	$ 2.4
Total	$ 10.6

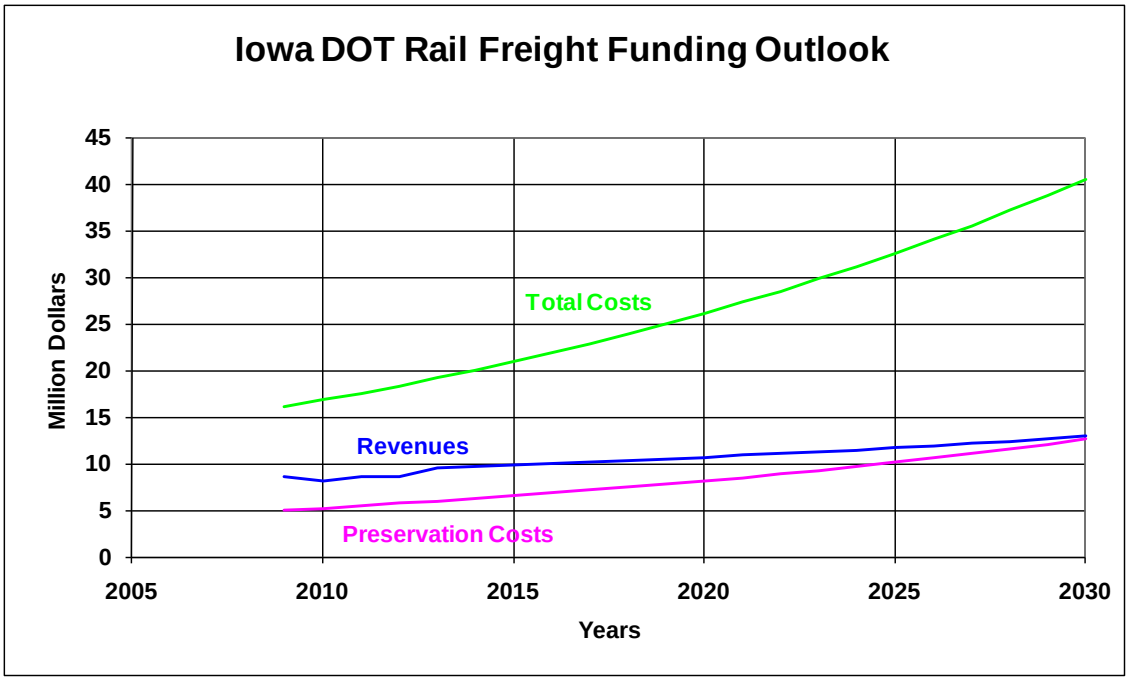


Implications of the shortfall include:

- Branch lines will not be upgraded to handle the larger cars.
- Spur tracks to new industries generating jobs will not be built.
- Highway-rail crossings will not be improved.

The following chart shows the estimated investment-cost-per-year compared to the estimated revenues. Preservation costs include passive sign replacement and surface repair projects at highway-rail crossings.

- Rail freight revenues are adequate to cover the preservation costs through 2030.
- Some rail freight revenue is available to cover the construction/expansion costs.
- By 2030, little money will be available for construction/expansion.



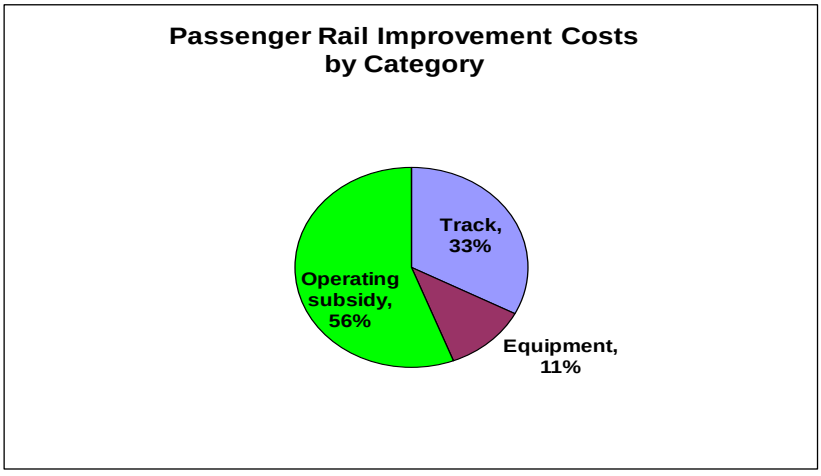
Passenger rail

The total cost to implement passenger rail service on these routes would average $53.3 million per year from 2009 to 2030. Iowa's share would be $22.9 million per year.

Average annual passenger rail costs
(Future dollars)

	Type	Total costs (in millions)	State costs (in millions)
Chicago-Dubuque	Track	---	---
	Equipment	---	---
	Operating support	$ 0.44	$ 0.44
	Subtotal	$ 0.44	$ 0.44
Chicago-Iowa City	Track	---	---
	Equipment	---	---
	Operating support	$ 1.93	$ 1.93
	Subtotal	$ 1.93	$ 1.93
Chicago-Omaha Iowa City to Omaha segment	Track	$ 14.95	$ 2.99
	Equipment	$ 5.50	$ 1.10
	Operating support	$ 6.28	$ 6.28
	Subtotal	$ 26.73	$ 10.37
Chicago-Sioux City Dubuque to Sioux City segment	Track	$ 15.45	$ 3.09
	Equipment	$ 5.40	$ 1.08
	Operating support	$ 6.25	$ 6.25
	Subtotal	$ 27.10	$ 10.42
Minneapolis-Kansas City via Des Moines	Track	$ 10.65	$ 2.13
	Equipment	$ 2.70	$ 0.54
	Operating support	---	---
	Subtotal	$ 13.35	$ 2.67
Minneapolis-Kansas City via Omaha	Track	$ 2.50	$ 0.50
	Equipment	$ 1.75	$ 0.35
	Operating Support	---	---
	Subtotal	$ 4.25	$ 0.85
Total		$ 73.80	$ 26.68

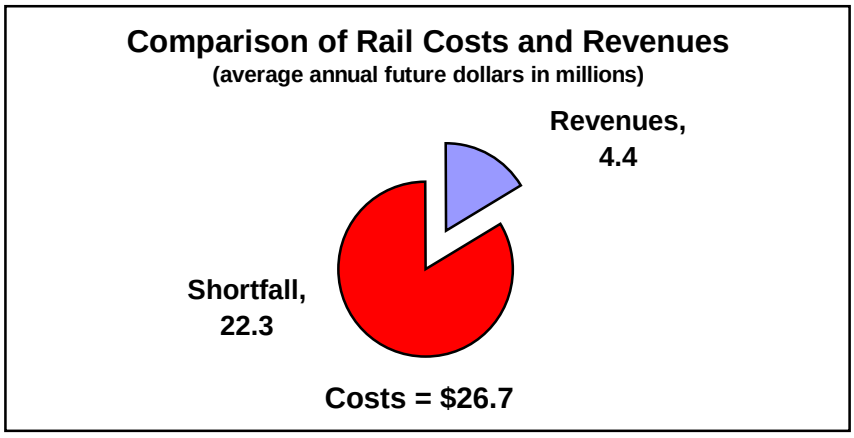
The majority of the $26.7 million per year state share is operating support at 66 percent and track upgrades at 28 percent.



During the 2009 session, the Iowa Legislature appropriated $3 million for 2010 and $3 million for 2011 to the Iowa Passenger Rail Fund. It was assumed that the fund would keep up with inflation from 2012 to 2030. On average, there is $4.4 million of state funding for passenger rail service in Iowa. A new federal authorization bill creates a program that allows states to apply for 80 percent federal funding for capital expenditures to encourage the expansion of intercity passenger rail. State funds to make up the 20 percent match must be available to apply to the competitive grant program. State dollars will be needed to make up the difference between ticket revenues and operating costs, and local funding will be needed for station improvements.

Average annual passenger rail revenues
(Future dollars)

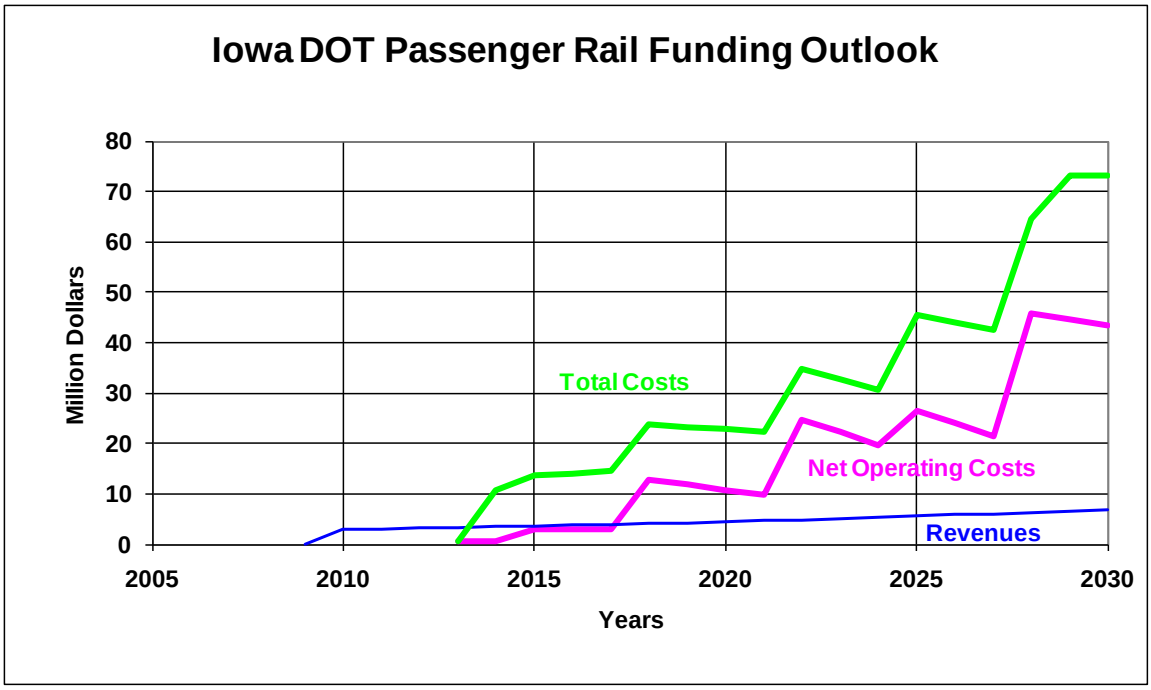
Source	State revenues (in millions)
Iowa Passenger Rail Fund	$ 4.4



Implications of the shortfall include:

- Very little passenger rail service in Iowa will be initiated.
- The future passenger rail system as envisioned would not be completed.
- Commuter rail service will not be financially supported by the state.

The following chart shows the estimated investment cost per year. While the operating investment ramps up over time, the capital requirements to upgrade the track and equipment comes in several intervals between 2009 to 2013 and 2016 to 2018.



- Passenger rail revenues are adequate to cover the capital and operational cost in 2013.
- From 2013 to 2017, revenues are adequate to cover the operational costs, but not for any additional capital costs.
- By 2018, the revenue will not cover all the operational costs; no money will be available for construction/expansion.

Performance measures for Iowa's railroad system

Having performance measures is important for determining whether goals are being met and assessing whether progress is being made. The following performance measures are intended to measure progress being made regarding railroad system safety, rail efficiency and impacts of railroad operations on the quality of life of the citizens of Iowa. More details on these performance measures are provided in Appendix E.

Iowa's rail freight system

Total crashes at highway-rail crossings (safety): The total number of crashes at highway-rail crossings is a measure of safety calculated by summing all crashes that occur where roadways cross railroad tracks in Iowa.

Railroad derailments per one million ton-miles (safety): The number of train derailments per million ton-miles is a primary measure of the safety of Iowa railroad lines. This measure indicates the number of derailments in moving one ton of freight one million miles. A derailment is defined as one or more cars or locomotives leave the tracks for a reason other than a collision, explosion or similar event.

Railroad return on investment (efficiency): The percentage of Iowa rail carriers earning a reasonable return on investment is a measure of efficiency. A higher return on investment means that the more money a railroad company puts into its business it can expect greater profits. One measure of reasonable return on investment is whether the railroad company is meeting its cost of capital. This figure describes how much money (as a percentage) the company needs to make to maintain its physical capital.

Average rail revenue per ton-mile (efficiency): Average rail revenue per ton-mile is a measure of efficiency that is calculated by dividing the total revenue by the number of ton-miles in Iowa. A ton-mile measures one ton of freight traveling one track-mile.

Rail fuel use per ton-mile (efficiency): A ton-mile measures one ton of freight traveling one mile on railroad track. Rail fuel use per ton-mile, a measure of fuel efficiency, is the number of gallons of fuel it takes to move one ton of freight one mile.

Percent of track-miles able to handle 286,000-pound cars (efficiency and quality of life): The percent of track-miles able to handle 286,000-pound cars measures efficiency. This measure is calculated by comparing the track-miles that can carry this weight to those that cannot.

Percent of track-miles able to operate at least 40 mph (efficiency and quality of life): The percentage of track-miles able to operate at 40 mph or more is a measure of speed for freight movement throughout Iowa. This measure compares track-miles that can operate at this speed and those that cannot.

Iowa's passenger rail system

Total accident/incidents relating to passenger rail service in Iowa (safety): The total number of train accidents and highway-rail incidents at highway-rail crossings is a measure of safety calculated by summing all accidents/incidents relating to passenger rail operations in Iowa.

Cost per passenger mile (efficiency): Average rail cost per passenger mile is a measure of efficiency that is calculated by dividing the total cost by the number of passenger miles for the specific passenger rail route.

Passenger rail revenue and cost-per-passenger (efficiency): Average passenger rail revenue and cost-per-passenger is a measure of efficiency that is calculated by dividing the total revenue and cost by the number of passengers for the specific passenger rail route.

Passenger rail ridership in Iowa (quality of life): The amount of passenger rail ridership is a measure of quality of life calculated by summing the ridership at all passenger stations served in Iowa.

Population served by passenger rail stations (quality of life): The population served by passenger rail stations is a measure of quality of life calculated by summing the city population at all passenger stations served in Iowa.

Passenger rail miles per gallon (quality of life): A passenger-mile measures one rider traveling one mile on railroad track. Rail fuel use per passenger-mile, a measure of fuel efficiency, is the number of gallons of fuel it takes to move one passenger one mile.

Part II. Iowa railroad resource guide

This section of the *2009 Iowa Railroad System Plan* provides background information for the plan, grouped by topic. The resource guide also provides users with important information about the railroad industry and Iowa's railroad system. The major topics covered below include:

- Iowa's railroad system and carriers.
- Railroad freight and Iowa's economy.
- Rail passenger service and Iowa's economy.
- The safety of Iowa's railroad system, including network safety and security, and railroad and communication interaction.

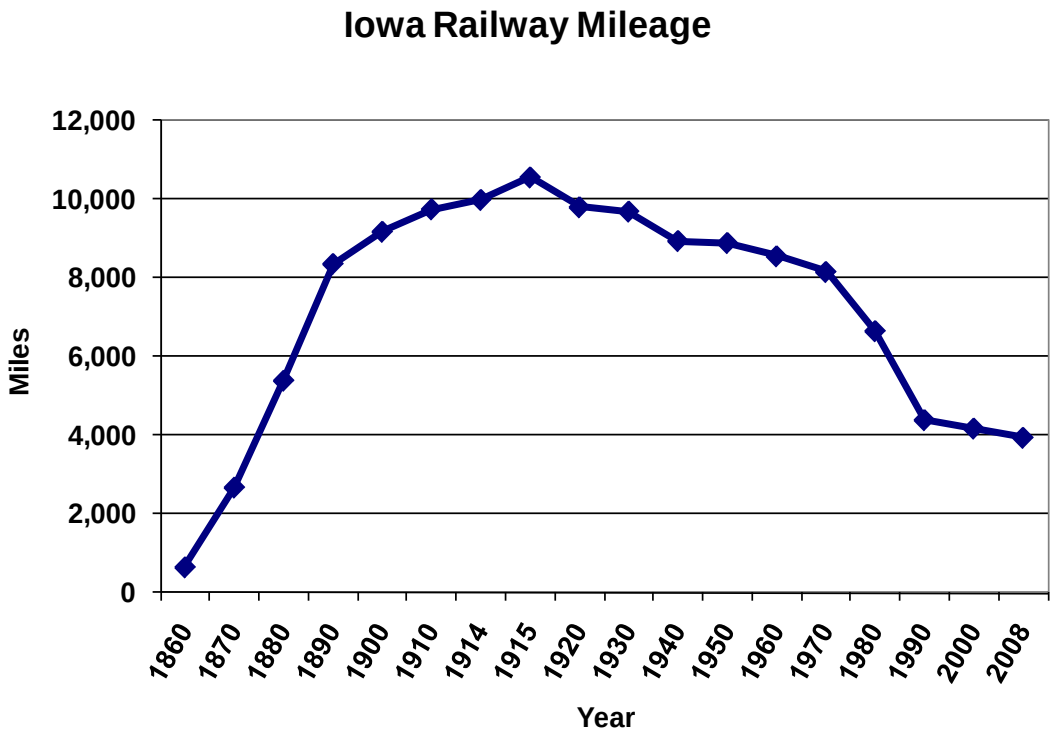
Iowa's railroad system and carriers

History

The railroad industry has been with Iowa almost as long as Iowa has been a state. The first railroad to cross the Mississippi River was completed in 1855, and the first main line across the state was completed in 1867. Railroads developed densely across Iowa's landscape, peaking in 1915 at 10,566 miles of track. When competing modes, such as trucks and automobiles became available, the railroad system was oversaturated. These modes provided a much faster alternative to the horse-drawn wagon trips that were used in earlier times to access the railroad system. Since the early 20th century, market forces have reduced the Iowa railroad network in terms of track miles, even as freight volume has risen steadily.

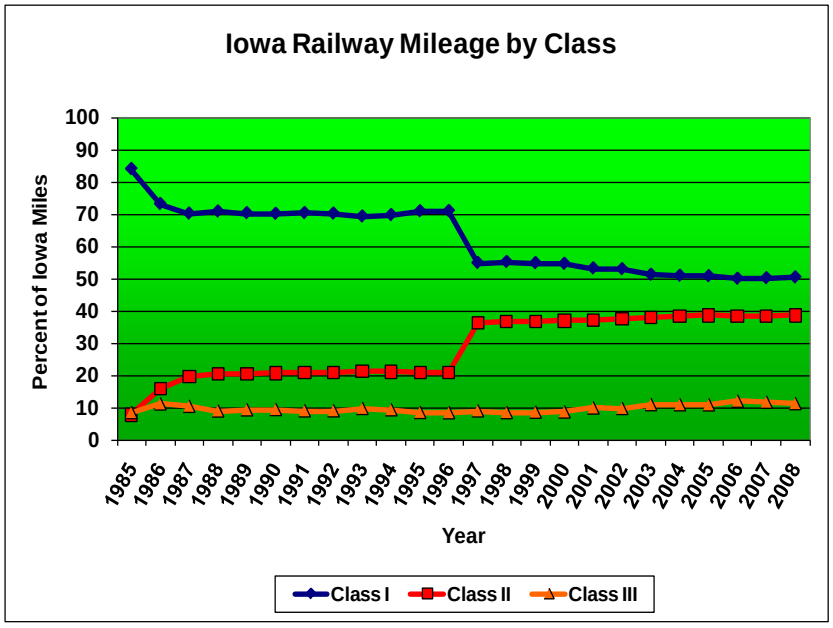
The development patterns of Iowa towns were greatly shaped by the presence of railroads. This is evident when one looks at the distribution of towns and state and county highways along the state's primary railroad corridors. Some towns appeared with the advent of a grain-loading elevator, steam engine water tower or railroad interchange. Passenger rail too was once a highly competitive option in Iowa, but was also overtaken by the automobile as the primary means of personal transport. The passenger rail service that remains in the state is limited, although it is still important to an increasing number of people.

The railroad industry experienced economic hardship throughout the 1970s due in part to overregulation by the Interstate Commerce Commission. During this time, Iowa lost a significant percentage of track mileage to abandonments. After rail mileage peaked in 1915, it has stabilized around 4,000 track-miles. The mileage trend is shown in the following chart.



Source: Railroads' annual reports

The concentration of railroad operators has changed over the last 20 years. Freight rail in the United States is a private enterprise that has public impacts. Therefore, railroads are an inevitable public interest; the balance of that interest has long been a source of debate. The Staggers Rail Act of 1980 brought about a major reduction in railroad regulation and established the Surface Transportation Board (STB) as a federal body with limited oversight of the railroad industry. This deregulation has brought about many broad changes to the industry, notably more freedom in setting rates and acquisitions and mergers. This industry restructuring is discussed later in this report, but many Class I railroad miles have been purchased by smaller Class II railroads, leading to a decrease in the share of Class I miles and an increase in Class II miles. Class III relative rail-mileage share remained constant. Class III railroads are the smallest railroads in terms of revenues.



Source: Railroads' annual reports

Another historical reason for the importance of rail as a key mode of transportation for Iowa has been its agricultural exports. Iowa's network of passenger and freight rail once crisscrossed the state. While passenger rail has declined, the state's freight railroad system remains critical, especially with the network of grain elevators. Appropriately, the Midwest is often referred to as "the nation's breadbasket." Even today, Iowa plays a major role in feeding the world, but the state is also developing as a biofuels production center. This simply could not be the case without railroad service. Grain shipping by rail remains critically important, but market changes have affected the distribution of elevators. This impact is described in later sections.

Highlights of Iowa's railroad system

- It serves all major urban areas plus 90 counties in Iowa.
- One rail car hauls as much as four semi-trucks.
- The equivalent of 10 million semi-trucks annually is hauled into, out of and through Iowa, which saves energy and improves air quality.
- Farmers save up to 10 cents per bushel by using the railroad system.
- It employs 4,038 workers and contributes $276 million to Iowa's economy.
- Railroad companies invested more than $435 million in 2008 to maintain their system.
- It moves a ton of freight 469 miles for each gallon of fuel consumed.
- It is served by two Amtrak long-distance routes.

Current trends

- Iowa has fewer rail miles.
- Iowa rail traffic continues to grow.
- Revenues per ton-mile are declining.
- Cars are getting larger.
- Trains are getting longer.
- There has been a shift to fewer, larger shipping facilities.
- A dramatic growth in biofuels is impacting rail service and equipment needs.
- Fewer train derailments and highway-railroad crossing incidents are occurring.
- Financial constraints limit railroad companies' ability to expand their capacity.
- Iowa's passenger rail ridership is increasing.
- There is growing interest in adding additional intercity passenger rail service in Iowa.

Key indicators of Iowa's overall railroad system condition, include the following.

- Of Iowa's 3,947 miles of rail, 893 or 23 percent are not able to carry 286,000-pound cars, which have become the standard size in the railroad industry.
- Demand for railroad spurs that add new traffic to the railroad system has grown over time, but is limited by funding availability.
- The annual number of crossings completed lags behind the average number of crossings needing improvements to meet the standards.

Current situation

Over the years, Iowa's railroad system has changed greatly. Deregulation in the 1980s has led to a significant amount of railroad consolidation and route abandonment. This has resulted in fewer, but more densely concentrated railroad lines. Service in Iowa for freight shipment remains extensive, providing service to 90 of Iowa's 99 counties on 3,947 miles of track.

Railroad freight service

Railroads are classified as Class I, II or III according to their operating revenue or route mileage. Because of the variability of the value of money, the range of dollar values for classifications change over time. According to the 2007 definitions from the Association of American Railroads' (AAR) Policy and Economics Department, Class I railroads, the major national and international railroads, had operating revenues of at least $359.6 million. Class II, regional railroads, posted operating revenues between $40 million and the Class I threshold and/or had at least 350 route-miles. Class III railroads, the local line-haul, switching and terminal roads, operate less than 350 route-miles and have revenues of less than $40 million annually.

Iowa has an extensive railroad transportation system that plays a vital role in moving goods throughout Iowa and to other states and foreign markets. Railroads in Iowa are owned and operated by private companies. The railroads' ability to haul large volumes, as an energy-efficient, environmentally sound network is a major factor in moving freight in a safe and secure manner.

In 2008, 19 railroads operated track in Iowa: five were Class I, three were Class II and 12 were Class III. The following table briefly details the railroads, the miles they own and the miles they operate under trackage rights. For more in-depth information about each railroad operating in Iowa, refer to Appendix D. Note that the CN is a Class I railroad that owns and operates track in Iowa, but reports its operations under the names of two subsidiary railroads: Chicago, Central and Pacific Railroad (Class II) and Cedar River Railroad (Class III).

Railroads Operating in Iowa (2008)

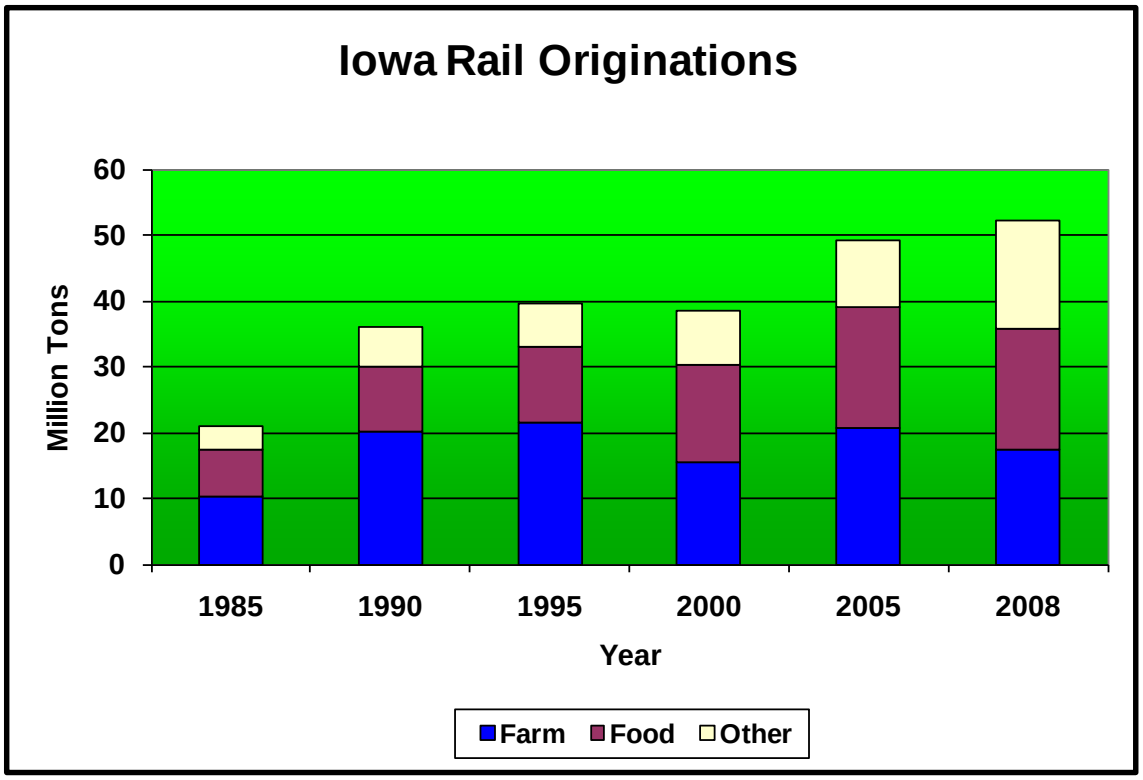
Railroad	Miles owned	Percent of total	Trackage rights
Class I			
BNSF Railway	636	16.11	39
CN* – Chicago, Central and Pacific Railroad Co.	538	13.63	0
CN*– Cedar River Railroad Co.	83	2.10	0
Norfolk Southern Railway Co.	7	0.18	37
Union Pacific Railroad	1,341	33.98	94
Subtotal	**2,605**	**66.00**	**170**
Class II			
Dakota, Minnesota & Eastern Railroad Corp.	0	0.00	24
Iowa Interstate Railroad Ltd.	334	8.46	27
Iowa, Chicago & Eastern Railroad Corp.	651	16.49	9
Subtotal	**985**	**24.96**	**60**
Class III			
Appanoose County Community Railroad Inc.	35	0.89	0
Boone & Scenic Valley Railroad	2	0.05	0
Burlington Junction Railway	5	0.13	0
CBEC Railway Inc.	6	0.15	0
Cedar Rapids and Iowa City Railway Co.	60	1.52	0
D & I Railroad Co.	0	0.00	39
D & W Railroad, LLC	19	0.48	6
Iowa Northern Railway Co.	134	3.39	35
Iowa Northwestern Railway**	0	0.00	0
Iowa River Railroad Inc.	43	1.09	0
Iowa Traction Railroad Co.	13	0.33	0
Keokuk Junction Railway Co.	1	0.03	0
Subtotal	**318**	**8.06**	**80**
Other			
State of South Dakota	**39**	**0.99**	**0**
Total	**3,947**	**100.00**	**310**

*Includes CN subsidiaries of Chicago, Central and Pacific Railroad Co. and Cedar River Railroad Co.
**Inactive during 2008, abandonment effective October 2008.

Source: Railroads' annual reports

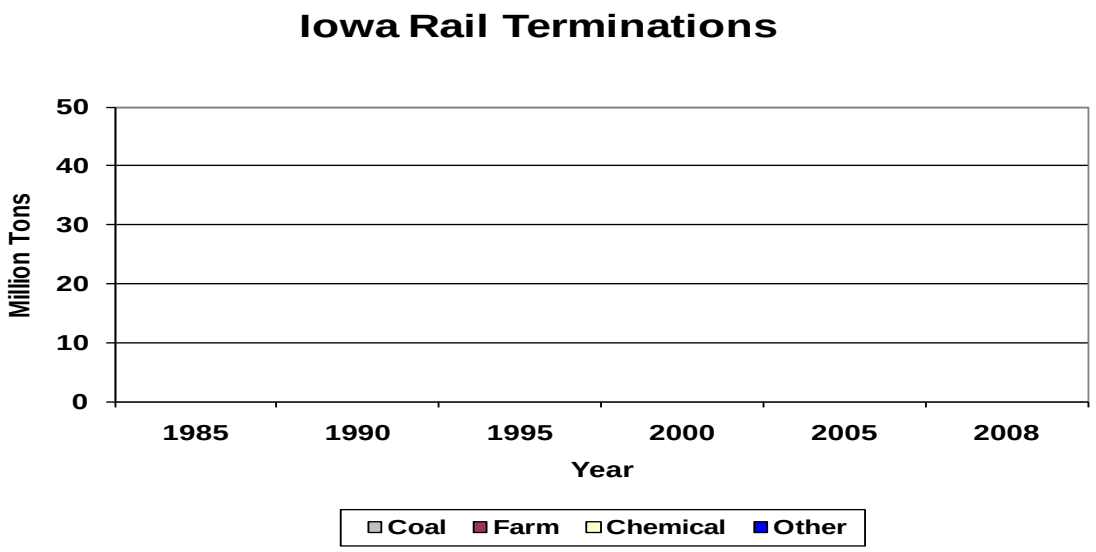
Key commodities

Iowa's railroad traffic consists primarily of pass-through traffic, as well as originating and terminating traffic of various commodities, mostly agriculture or energy products. The primary commodities with railroad trips originating in Iowa are farm and food products. Farm products are goods such as raw corn and soybeans. Food products include refined value-added products, such as oils and high-fructose corn syrup.



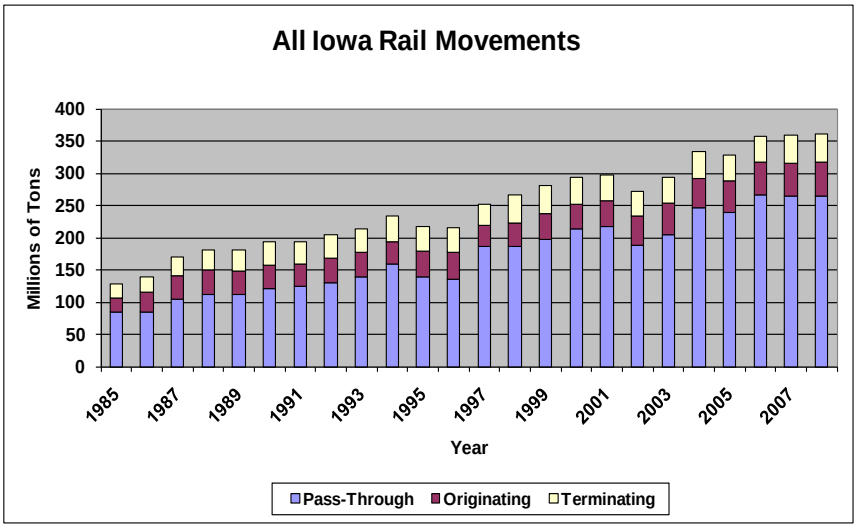
Source: Railroad's annual reports

The primary commodities for rail freight trips terminating in Iowa are coal, and farm and chemical products. Coal is largely imported to Iowa's coal-fired power stations from the Powder River Basin in Wyoming for electricity generation around the state. Farm product terminations include corn and soybeans for processing and barge departures, as well as goods to other food production facilities. The primary chemical products are fertilizers for agriculture.



Source: Railroads' annual reports

Although trucking holds a considerably higher share of freight originations, terminations and especially intrastate traffic, the bulk of rail freight movements in Iowa involve pass-through commodities. Iowa has experienced a general increase of pass-through traffic over the last 20 years, primarily resulting from economic shifts in global markets and in the railroad industry. This trend has also correlated well with the growth of the U.S. economy. Iowa is an important linking state for the UP and BNSF. It is important to keep the railroad capacity at an adequate level for originating, terminating and especially pass-through railroad traffic.



Source: Railroads' annual reports

Passenger rail service

Passenger rail service in Iowa can be classified as national, intercity passenger and commuter rail.

Amtrak provides the **national** or long-distance system for passenger rail in the United States. Ticket revenues and the federal government support Amtrak's long-distance routes. No state funding is required for the long-distance network. Iowa has two national Amtrak routes – the California Zephyr and Southwest Chief.

Intercity passenger rail is normally short trips of less than 500 miles, several hours in length and focused on basic transportation rather than the "travel experience." Routes normally connect larger cities for frequent and repeat travel, which is important to the business travel market. Intercity passenger rail are state-sponsored routes (funded by the state or a combination of federal and state funding and ticket revenues).

Commuter rail refers to shorter distance routes between nearby cities or suburbs to city center, and supports commuting trips to and from work. A Passenger Transportation Funding Study, currently under way, will look at commuter rail in Iowa.

National routes

National Railroad Passenger Corp. (Amtrak)

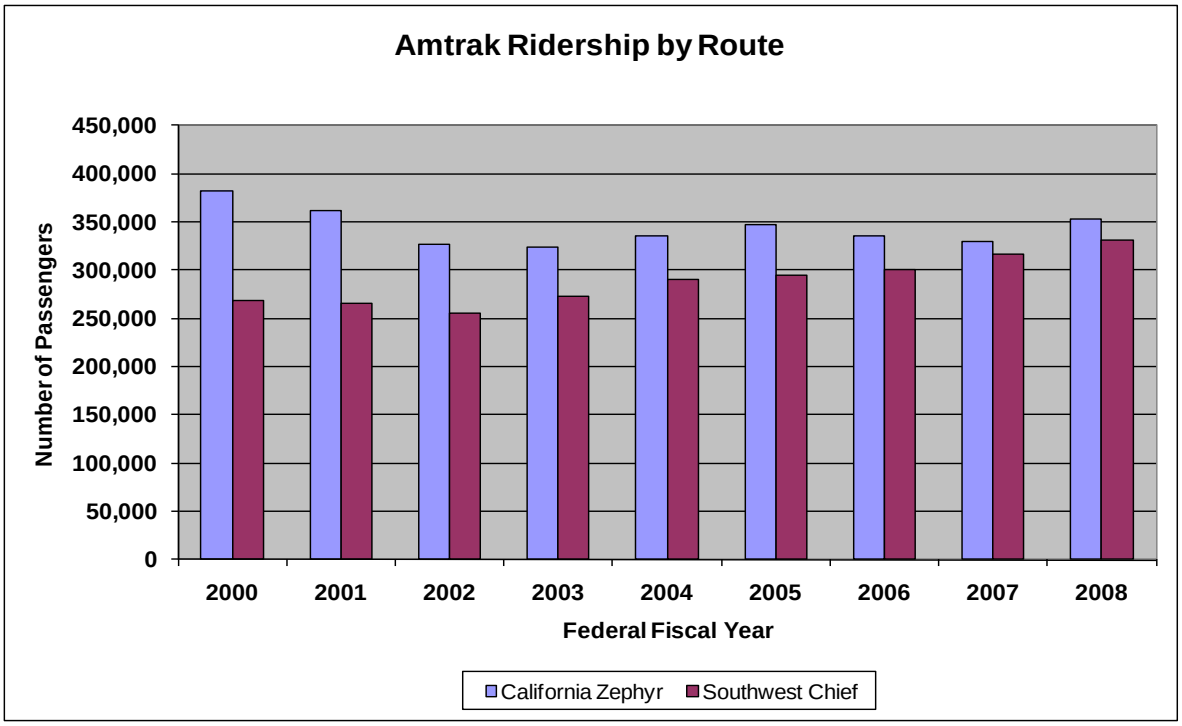
Two lines of the National Railroad Passenger Corp.'s (more commonly known as Amtrak) railroad system currently serve Iowa, the California Zephyr and Southwest Chief. The California Zephyr operates across Iowa as it runs from Chicago to Oakland and serves five stops in Iowa along the BNSF rail line in the southern portion of the state: Burlington, Mount Pleasant, Ottumwa, Osceola, and Creston. The Southwest Chief line runs from Chicago to Los Angeles, crossing the southeast tip of Iowa with one stop in Fort Madison.

Amtrak Routes in Iowa

Iowa's two Amtrak routes operate at a maximum speed of 79 mph, which are not considered to be high-speed rail corridors. FRA refers to trains traveling at speeds of 90 to 300 mph as high-speed rail. A number of states are planning high-speed rail systems that typically involve upgrades of existing rail line rather than entirely new rail lines. Amtrak has 150 mph service, which operates in the Northeast Corridor.

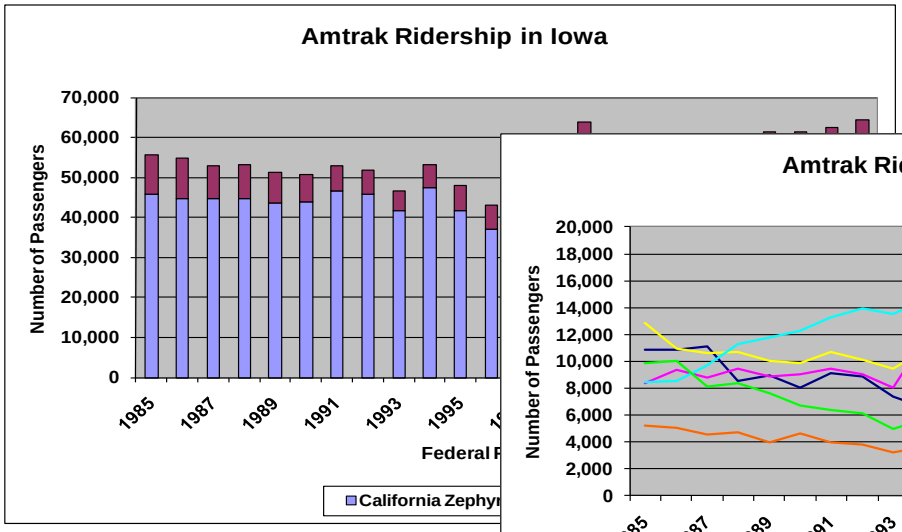
Ridership

National ridership on the entire California Zephyr and Southwest Chief routes in 2008 totaled about 340,000 each. Since 2000, ridership on the Zephyr has declined slightly while the Southwest Chief has been growing. In 2007, trips on the California Zephyr averaged 825 miles (one-third of the total distance between Chicago and San Francisco). Trips on the Southwest Chief averaged 950 miles (40 percent of the total route distance).

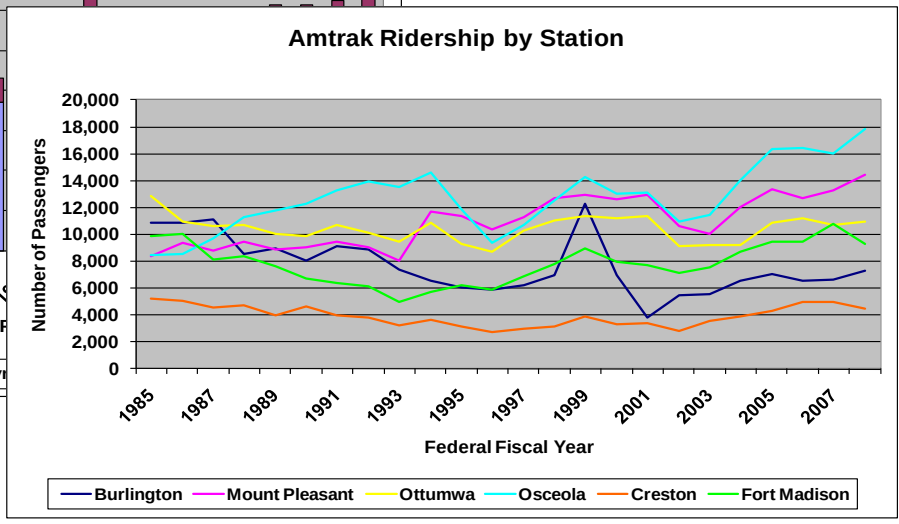


Source: Amtrak

Amtrak ridership in Iowa has remained rather steady over the long term, hovering between 50,000 and 60,000 passengers. In recent years, the trend has increased, returning to 1999 levels with an 18,000-rider increase between 2002 and 2008. All stations in Iowa experienced general increases in ridership during that same period. Recent increases in fuel prices have likely boosted Iowa's Amtrak ridership to its highest level since 1985 at 64,260 rides. Iowa accounts for 16 percent of the ridership on the California Zephyr route and 3 percent on the Southwest Chief.



Source: Amtrak



Source: Amtrak

Fares

During 2007, the most popular destinations for riders boarding the train in Iowa were Chicago, Denver and Kansas City. Based on these destinations, one-way fare information is presented in the following table. In addition to the popular destinations, fares to California are included for comparison. Additional fare information is available on Amtrak's Web site at www.amtrak.com.

Typical fares from Iowa stations leaving June 1, 2008

Service	From	To	Mileage	Duration	One-way fare
Zephyr	Osceola, Iowa	Chicago, Ill.	359	7h 10m	$ 53
Zephyr	Osceola, Iowa	Denver, Colo.	679	12h 6m	$ 77
Zephyr	Osceola, Iowa	Emeryville, Calif.	2,078	48h 1m	$ 158
Southwest Chief	Fort Madison, Iowa	Chicago, Ill.	220	4h 9m	$ 46
Southwest Chief	Fort Madison, Iowa	Kansas City, Mo.	217	3h 14m	$ 53
Southwest Chief	Fort Madison, Iowa	Los Angeles, Calif.	2,036	35h 18m	$ 172

Source: Amtrak

Schedules

Both the California Zephyr and Southwest Chief provide daily service in both directions through Iowa. The California Zephyr travels 2,438 miles between Chicago and Oakland. The westbound and eastbound trip from Chicago to San Francisco takes about 54 hours to complete. The Southwest Chief travels 2,256 miles between Chicago and Los Angeles taking about 39 hours. The average speed for the California Zephyr and the Southwest Chief is 45 and 52 mph, respectively. The schedule for each route is shown in the following tables.

California Zephyr schedule: Chicago – Denver – Oakland

Westbound Daily Read down	Mile						Eastbound Daily Read up
2:00 p.m.	0	↓	Dp	Chicago, Ill. - Union Station	Ar	↑	3:50 p.m.
2:34 p.m.	28		Dp	Naperville, Ill.	Dp		2:13 p.m.
3:44 p.m.	104		Dp	Princeton, Ill.	Dp		1:05 p.m.
4:38 p.m.	162		Dp	Galesburg, Ill.	Dp		12:14 p.m.
5:25 p.m.	205		Dp	Burlington, Iowa	Dp		11:26 a.m.
5:59 p.m.	233		Dp	Mount Pleasant, Iowa	Dp		10:54 a.m.
6:53 p.m.	279		Dp	Ottumwa, Iowa	Dp		10:09 a.m.
8:09 p.m.	359		Dp	Osceola, Iowa	Dp		8:40 a.m.
8:41 p.m.	392		Dp	Creston, Iowa	Dp		8:04 a.m.
10.39 p.m.	500		Dp	Omaha, Neb.	Dp		6:14 a.m.
8:05 a.m.	1038		Dp	Denver, Colo.	Dp		8:10 p.m.
11:30 p.m.	1608		Dp	Salt Lake City, Utah	Dp		4:35 a.m.
6:10 p.m.	2438		Ar	Emeryville, Calif.	Dp		8:10 a.m.

Some stations between Omaha and Emeryville have not been included on this table.
Source: Amtrak System Timetable, winter 2008

Southwest Chief schedule: Chicago – Albuquerque – Los Angeles

Westbound daily read down	Mile						Eastbound daily read up
3:15 p.m.	0	↓	Dp	Chicago, Ill.- Union Station	Ar	↑	3:20 p.m.
3:50 p.m.	28		Dp	Naperville, Ill.	Dp		2:44 p.m.
4:39 p.m.	83		Dp	Mendota, Ill.	Dp		1:21 p.m.
5:01 p.m.	104		Dp	Princeton, Ill.	Dp		1:00 p.m.
5:53 p.m.	162		Dp	Galesburg, Ill.	Dp		12:10 p.m.
6:57 p.m.	220		Dp	Fort Madison, Iowa	Dp		11:11 a.m.
8:06 p.m.	298		Dp	La Plata, Mo.	Dp		9:57 a.m.
10:55 p.m.	437		Dp	Kansas City, Mo.	Dp		7:45 a.m.
3:55 p.m.	1332		Dp	Albuquerque, N.M.	Dp		12:55 p.m.
9:57 p.m.	1691		Dp	Flagstaff, Ariz.	Dp		6:11 a.m.
8:15 a.m.	2256		Ar	Los Angeles, Calif.	Dp		6:45 p.m.

Some stations between Kansas City and Los Angeles have not been included on this table.
Source: Amtrak System Timetable, winter 2008

Revenues and expenses

Total operating revenues and expenses for the two national Amtrak routes serving Iowa are shown in the following table. Operating revenues include income from tickets, food and beverage, mail, and other transportation (package express and baggage). The majority of total operating revenues come from tickets. The summer months of June, July and August account for one-third of the year's revenues.

As shown in the following table, operating revenues dropped from 2002 to 2005, largely due to the loss of mail and express revenues. Since 2005, operating revenues have increased on both routes, while Amtrak has been able to keep operating expenses at a steady level. As a result, the cost-recovery ratio (operating revenues divided by

operating expenses) has increased from its low point in 2005.

Operating revenues and expenses

Federal fiscal year	California Zephyr			Southwest Chief		
	Operating revenues*	Operating expense*	Cost recovery ratio	Operating revenues*	Operating expense*	Cost recovery ratio (percent)
2002	$ 50.0	$ 117.5	42.6%	$ 69.8	$ 154.2	45.3
2003	$ 42.3	$ 115.7	36.6%	$ 53.3	$ 154.6	34.5
2004	$ 40.6	$ 117.4	34.6%	$ 51.4	$ 158.0	32.5
2005	$ 36.5	$ 106.9	34.1%	$ 35.6	$ 111.1	32.0
2006	$ 39.8	$ 110.6	36.0%	$ 39.2	$ 114.1	34.4
2007	$ 40.0	$ 109.7	36.5%	$ 41.3	$ 100.9	40.9

* In million dollars
Source: Amtrak

Iowa has actively been looking at adding additional passenger rail service from Chicago to Quad Cities to Iowa City and from Chicago to Dubuque. Amtrak has conducted feasibility studies on the Chicago to Iowa City and Chicago to Dubuque routes. Iowa has also participated with several Midwestern states in the Midwest Regional Rail Initiative (MWRRI), with the primary hub in Chicago. Results of this initiative are detailed in Appendix C.

Intermodal facilities
Modal connections are important in the movement of both freight and passengers. Railroads, through their connections with other modes, are involved in many intermodal traffic movements. Rail intermodal is typically thought of as a trailer-on-flat-car (TOFC) or container-on-flat-car (COFC) movement where rail provides the long-haul portion of the movement. Intermodal shipments often combine the low cost and energy efficiency of rail line haul with the fast, door-to-door service time and flexibility of trucks.

The trend in intermodal facilities is toward development of regional hub facilities located outside of Iowa (Chicago, Minneapolis/St. Paul, Kansas City, St. Louis, etc.) that are fully mechanized to transfer the trailer and containers between rail and truck. This trend has affected Iowa in that the number of facilities has decreased from 13 in 1985 to one at the present time. The TOFC/COFC facility is located in Council Bluffs served by IAIS and UP.

In addition, railroads provide intermodal service through other facilities, including barge terminals, grain elevators and Amtrak passenger stations, as previously discussed. Iowa currently has 43 barge terminals that are served by rail, 198 grain elevators that are capable of loading more than 25 cars at one time and six Amtrak stations.

Key challenges and future issues
Impacts of economic changes on capacity: As a result of the economic and logistic changes described further in the next section of this report, railroad system capacity is becoming a constraining factor on Class I railroads nationwide as they seek to retain or increase their freight modal share against trucking. It is in the interest of the Iowa DOT to reserve the use of rail for freight, as this helps reduce congestion on Iowa's highways

and lowers maintenance costs. Because a single 100-car train may carry the equivalent of nearly 400 semi-trailers, congestion implications on Iowa interstates and highways are obvious. A shift toward trucking, however, is unavoidable unless rail can provide the desired level of service. To achieve such efficiency may require infrastructure enhancements that can offer faster travel times and shorter dwell times, allowing supply chain and inventory costs to be reduced dramatically.

Impacts of economic changes on mode choices: As explained in the performance measures section, changes in rail shipping have favored the use of larger and heavier freight cars for more efficient shipments. This is especially true for coal and grain shipments. In the past, local elevators were the primary destinations of farmers unloading harvested goods. Today, however, larger-capacity elevators located along main line railroads are more attractive to farmers because of higher rates. Producing 75- or 100-car trains, these large elevators receive better shipping rates from the railroads, which enable them to offer increased rates to farmers. This, coupled with larger farms able to afford larger trucks, shifts traffic from short-line railroads to truck-on-highway trips to the larger elevators.

The driving factor for this trend are longer, more efficient trains of 75, 100 or more cars referred to as “unit” or ”shuttle” trains. However, newer rail cars that can handle 286,000 pounds (up from the previous standard of 263,000 pounds) require upgrades to some track (rail and ties) and roadbed (substructure and ballast). In addition, not all elevators can handle the length of the shuttle trains, and will require upgrading. Higher-capacity equipment and longer trains have inevitably reduced the number of grain elevators.

Increases in freight: Iowa’s freight traffic is projected to grow significantly. This increase in freight will impact rail as well as other modes of transport, especially trucking. Between 1985 and 2008, through traffic on Iowa railroads more than doubled, as Iowa’s freight growth in general. In 2003, the American Association of State Highway Transportation Officials (AASHTO) published a report concerning future freight projection, as well as investment needs. Using these projections, the Iowa DOT has projected a 44 percent freight growth by 2020 and funding needs of approximately $14 million for track upgrades, as well as $18 million for present economic opportunities and future economic development through spur tracks.

Spur tracks are an essential element to attracting rail-dependent industry. Connection to larger rail lines is becoming integral in the larger globalized economy, as different industry locations become stops in a lengthened supply chain. From an economic development standpoint, the ability to construct spur tracks will be necessary to attract and maintain an industry presence in Iowa communities. Spur installation should be encouraged by the Iowa DOT's Office of Rail Transportation and supported by the Iowa Legislature.

Biofuels production impacts: As discussed above, the production of ethanol and other biofuels is increasing in Iowa. This increase will have many impacts across the state, including impacts on rail and highway freight. The primary input for ethanol is grain, and the finished ethanol product and other agricultural outputs, such as distillers dried grains [DDGs] used as livestock feed, must leave the plant following production. Because ethanol cannot run in a pipeline like other forms of motor fuel, it must move by rail or truck.

The Iowa DOT estimates that a 50-million gallon capacity ethanol plant would require 80 trucks per day to satisfy inputs alone. For all of the trucks necessary for all constructed and planned ethanol plants in Iowa, the number of inbound trucks rises to 10,465.

Outbound freight requirements will depend on the modal split of the exiting freight. Part of this mode selection will depend on the final destination, with rail being a more desirable alternative if the ethanol is shipped to a distant destination (e.g., California) rather than a local destination. The following table displays the number of rail cars and mix of rail cars and trucks depending on possible scenarios for outbound ethanol-related freight. The Iowa DOT must work with ethanol producers to plan for increases in truck and rail traffic, and possible capacity issues as ethanol industries move from planning to operation.

Outbound requirements for Iowa ethanol freight

Mode	Output	50 million gallons	100 million gallons	Existing plants	Existing and planned Sites
100% rail	Corn	4,630	9,260	208,704	612,222
100% rail	Ethanol	1,667	3,333	75,133	220,400
	DDGs	1,574	3,148	70,959	208,156
	Total cars	**3,241**	**6,481**	**146,093**	**428,556**
67% rail	Ethanol	1,083	2,167	48,834	143,260
63% rail	DDGs	881	1,763	39,737	116,567
	Total cars	**1,965**	**3,930**	**88,574**	**259,827**
33% truck	Ethanol	2,188	4,375	98,613	289,275
37% truck	DDGs	2,770	5,541	124,888	366,354
	Total trucks	**4,958**	**9,916**	**223,501**	**655,629**

Source: Iowa DOT

Increases in agricultural production: As the amount of freight moving through Iowa by rail continues to increase, so does the production levels of Iowa's agricultural commodities. Corn and soybean production are increasing and forecasted to exceed 2 billion bushels and 550 million bushels, respectively, by 2010.

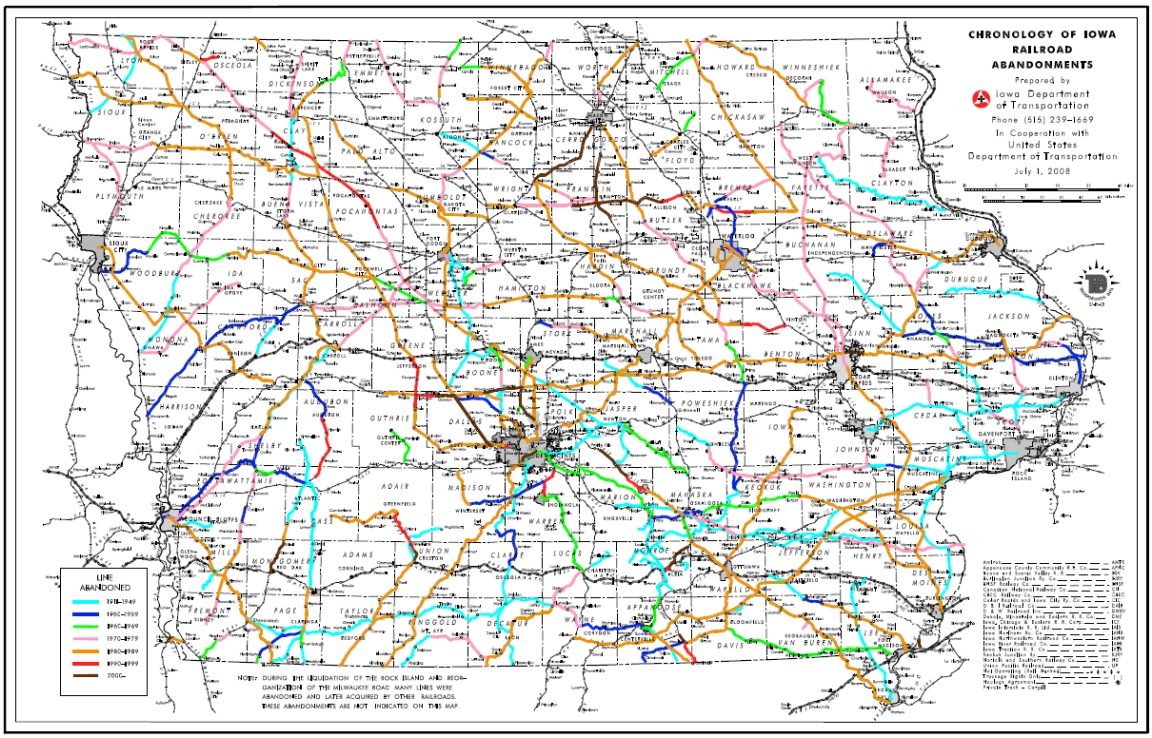
Railroad abandonment: Railroad abandonment is an option for railroad companies in which the companies may discontinue service on segments of railroad. This may be brought on by various factors, including low service, industry closures or deferred track maintenance. The Iowa DOT is involved in any abandonment proposals, which must be approved by the Surface Transportation Board. This involvement includes public meetings to assess concerns from the affected community and impacts to various stakeholder groups, as well as a staff report documenting the Iowa DOT's findings.

Railroad abandonments have varying impacts on local communities. In some instances, the railroad may have simply become irrelevant, and the effect of its departure on the community will be minimal. In others, the abandonment may result in significant changes to the community's and local industry's shipment of goods. Loss of the rail line may hinder future economic development attractiveness, as potential industries may desire rail for inbound or outbound shipment of goods.

Rural communities with grain elevators served by rail might be especially affected by abandonment. The State of Kansas has done several studies concerning the effects of rail abandonment and found that a loss of rail service for local grain elevators affects the grain shipment process in two ways. First, the farmer might ship his/her grain to a terminal farther away with rail access to obtain a higher rate. Second, loss of rail service affects the stage of shipment in which the local county elevator ships grain to a larger terminal elevator by truck instead of by rail. This can have major impacts on pavement damage to local, county and state roads. One study found that maintenance costs of farm-to-elevator routes increased 43 percent, while elevator-to-terminal route maintenance costs would increase 50 percent. These second-stage costs would be borne primarily by the Iowa DOT's maintenance funds.

With these considerations in mind, the Iowa DOT should work closely with railroads and affected communities to prevent abandonment where feasible. Funding assistance can be sought from the Iowa Railroad Revolving Loan and Grant Program. A chronology of Iowa's railroad abandonments appears on the following map. As of July 1, 2009, only one section of track from Des Moines to Bondurant in central Iowa is undergoing study for abandonment.

Chronology of Iowa railroad abandonment



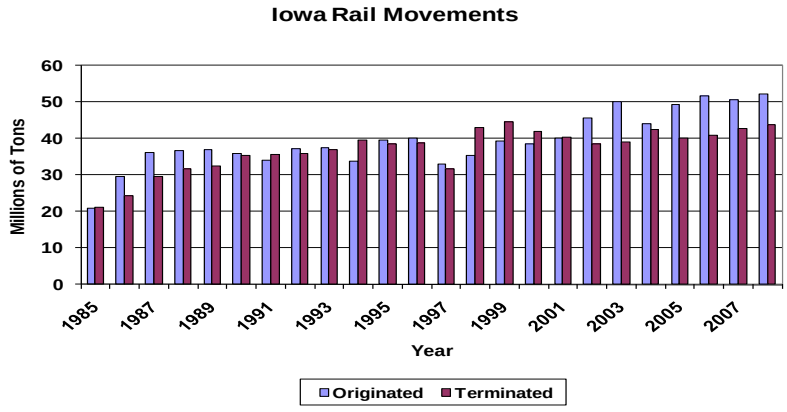
Passenger rail: As with much of the United States, Iowa's passenger rail service is crippled. The reliability of Amtrak is often called into question — usually running several hours behind schedule, especially when coming from the west. As the passenger rail proposals, including the MWRRI move forward, Iowa should participate actively in system planning and development to ensure that Iowans are well served and represented by any investments. Part I and Appendix C outlines the passenger rail proposals.

Railroad freight and Iowa's economy

As shown in the chart on page 66 and explained in the previous section, Iowa's railroad network has shrunk considerably since its peak in the early 1900s. Through "route rationalization," larger railroads have shed their less profitable lines by either selling them to smaller carriers or through line abandonment. Although Iowa has experienced a large extent of abandonment, the economic importance of the network for freight remains critical. In fact, as Iowa continues to develop as a center for the production of biofuels and the broader bioeconomy, railroads will become more rather than less important.

Railroad employment: In 2007, railroads employed nearly 4,038 Iowans paying $276 million in salaries. In that same year, 8,970 Iowans were retired railroad beneficiaries.

Rail use and freight flow: Railroads carry a large amount of freight to and from Iowa each year, and play an important role in the Iowa economy. Railroads currently serve 90 of Iowa's 99 counties, 449 of 949 cities, 43 of 69 river terminals, and 519 of 967 grain elevators. As the number of rail-miles decreased over time, the amount of freight traveling on those miles has increased. Rail- and truck-based freight transport contributes nearly 70 percent of originating and terminating freight traffic in Iowa. Considering the much greater capacity of a rail car (up to five times that of a trailer), maintaining a healthy railroad system is essential in keeping the burden on the state's highways and interstates at a reasonable level. The following chart shows movements of rail freight originating or terminating in Iowa.



Source: Railroads' annual reports

Rail's share of the total value is noticeably smaller when compared to its share of the tonnage. Rail's main commodities being of a lower value, such as grain and coal, explains this difference. Iowa railroads carry 27 percent and 21 percent of Iowa's outbound and inbound freight, respectively, with 5 percent of the inbound freight value and 8 percent of the outbound freight value. The freight values are lower than freight percentages, because much of the rail freight tends to be lower value goods and commodities. When considering the primary inbound commodity is coal, used to power most of Iowa's power plants and provide electricity to homes and businesses, rail benefits multiply.

Freight tons shipped by mode (2002)

Mode	Intrastate		Originating		Terminating	
	million tons	%	million tons	%	million tons	%
Truck	164.5	91	69.6	42	68.4	46
Rail	1.3	<1	44.3	27	31.8	21
Water	<0.1	<1	8.7	5	0.2	<1
Air, air and truck	<0.1	<1	0.1	<1	<0.1	<1
Truck and rail	<0.1	<1	0.2	<1	0.3	<1
Other intermodal	<0.1	<1	1.3	<1	0.4	<1
Pipeline	15.6	9	40.9	25	48.3	32
Total	**181.6**	**100**	**165**	**100**	**149.4**	**100**

Source: FHWA Freight Analysis Framework

Value shipped by mode (2002)

Mode	Intrastate		Originating		Terminating	
	$ (millions)	%	$ (millions)	%	$ (millions)	%
Truck	42,096.70	91	75,478.60	71	60,994.50	67
Rail	174.4	<1	9,038.10	8	4,744.40	5
Water	3.4	<1	1,113.70	1	9.5	<1
Air, air and truck	12.7	<1	2,122.90	2	539.5	<1
Truck and rail	14	<1	1,000.70	<1	300.8	<1
Other intermodal	629.3	1	5,046.60	5	8,922.50	10
Pipeline	3,433.60	7	13,161.40	12	15,334.40	17
Total	**46,364.20**	**100**	**106,962.00**	**100**	**90,845.80**	**100**

Source: FHWA Freight Analysis Framework

Economic impacts on rail freight: As the global economy continues to shift to a more integrated network, changes will affect all modes of freight, especially rail. Many of these changes are already apparent. First, businesses have shifted from “pull” logistics to “push” logistics, where shippers rely on carriers to make on-time deliveries for businesses that use less warehousing and rely on just-in-time deliveries. This is the model characteristic of many of the big-box stores, as well as many manufacturing facilities.

This economic shift puts pressure on rail in multiple ways. It requires a smaller window of arrival times at a destination, and it increases the amount of freight in transit and length of rail freight trips, especially as product parts and finished goods are shipped across the United States or the world as part of the supply chain. As national freight levels are expected to increase 67 percent between 2000 and 2020 (AASHTO), and as Iowa’s freight traffic is projected to grow 44 percent, railroads must remain competitive by increasing capacity and accommodating heavier rail cars.

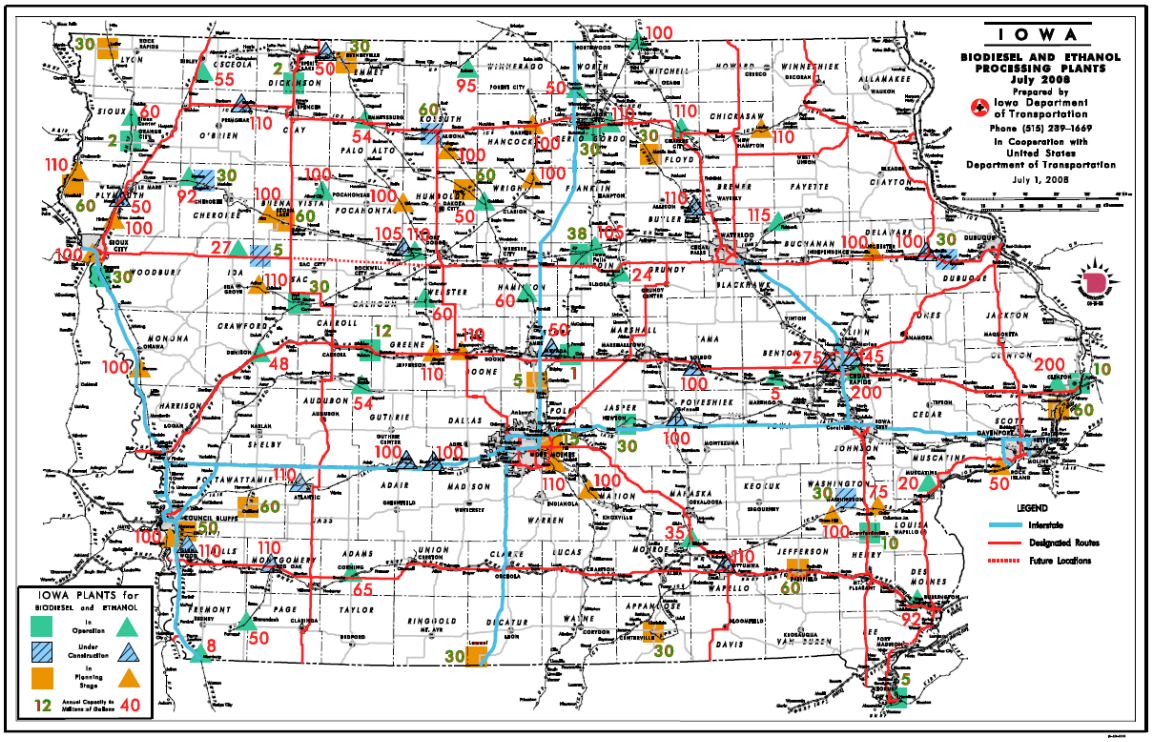
Pass-through-state and congestion: While Iowa has a significant amount of rail origins and destinations, it also plays an important part in the health of the national economy as a key pass-through state. At 265-million tons per year, 73 percent of Iowa's rail freight has an origin and destination outside of Iowa. For the UP and BNSF, Iowa accounts for approximately 25 percent of the tons hauled by those railroads.

Economic interdependence dictates that Iowa's economy reflects the health of the national economy; thus, Iowa has an interest in preserving the role of rail as a reliable and efficient mode of transportation.

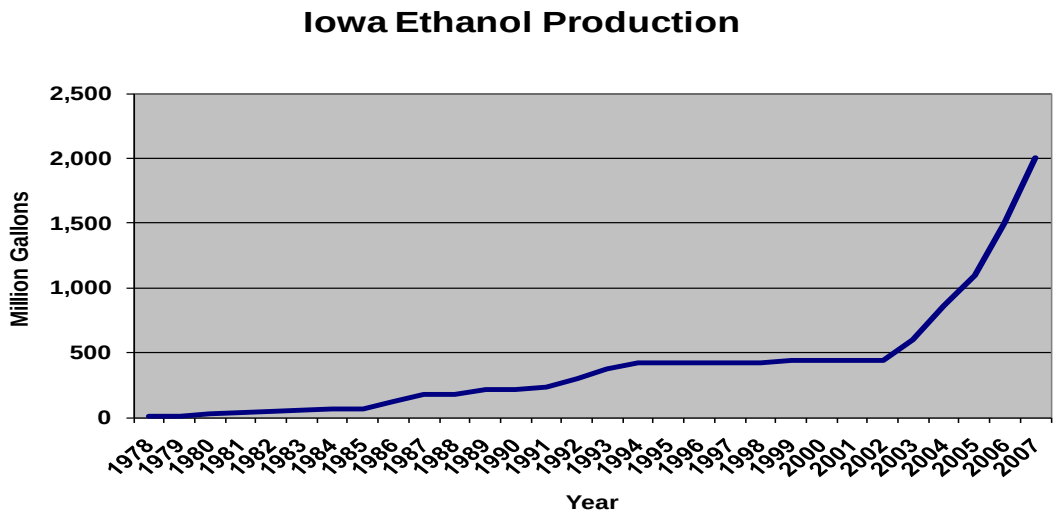
Coordinated planning for ethanol and other value-added industries: Providing rail access to ethanol production facilities through spur tracks can provide valuable economic benefits. Ethanol is a form of value-added product, where lower value corn is exported as a higher-value fuel product. There is a need for coordination between rail service providers and ethanol facilities from the early phases of planning for ethanol plants. The Iowa DOT's Office of Rail Transportation plays a facilitating role between ethanol producers and railroads.

Other value-added industries, such as livestock feed, biodiesel production plants and pharmaceutical companies using Iowa agricultural products, would also benefit from cooperation with the Iowa DOT for interest in rail spur planning, coordination and funding assistance. As shown by the spatial distribution of ethanol and biodiesel plants in following map, rail serves as an important link for these facilities. However, biofuels production will require multiple modes of transport as grain moves from farm to plant, as the fuel moves from the production plant to final destinations, and as production by-products are moved.

Biofuel facilities in Iowa



Ethanol (biofuels) plants and production: Ethanol has become a significant component of the American fuel market, with federal policy increasing research and support for ethanol production. Iowa has long been at the forefront of the ethanol movement — producing approximately 2 billion gallons in 2007. The ethanol industry creates approximately 4,000 jobs in the state, contributes nearly $480 million to local communities throughout Iowa and increases in production revenues for corn growers.



Source: Iowa Renewal Fuels Association

Ethanol production is not a panacea for the state economy. Like any industry, ethanol is subject to market forces of supply and demand. Indeed, it is currently influenced by government subsidies, and policy changes could affect the industry in Iowa. With these political realities in mind, supporting ethanol plants is advantageous for the state of Iowa, and rail policy can contribute to that end.

The impact of the biofuels industry on Iowa freight railroading is significant. Both ethanol and biodiesel production have experienced dramatic increases during recent years, and this trend is expected to continue as the United States attempts to reduce its dependence on foreign oil. The following table shows the number of plants for biodiesel and ethanol in various states of operations.

Iowa biofuel plant status (mid-2008)

	Plants		Capacity (million gallons) in		
	status	**number**	**existing**	**construction**	**planned**
Ethanol (corn)	Operational	31	2254	0	598
	Construction	15	0	1635	0
	Planning	23	0	0	2125
	Totals	**69**	**2254**	**1635**	**2723**
Biodiesel (soybeans)	Operational	13	228	0	0
	Construction	5	0	155	0
	Planning	13	0	0	490
	Totals	**31**	**228**	**155**	**490**

Source: Iowa DOT

Rail passenger service and Iowa's economy

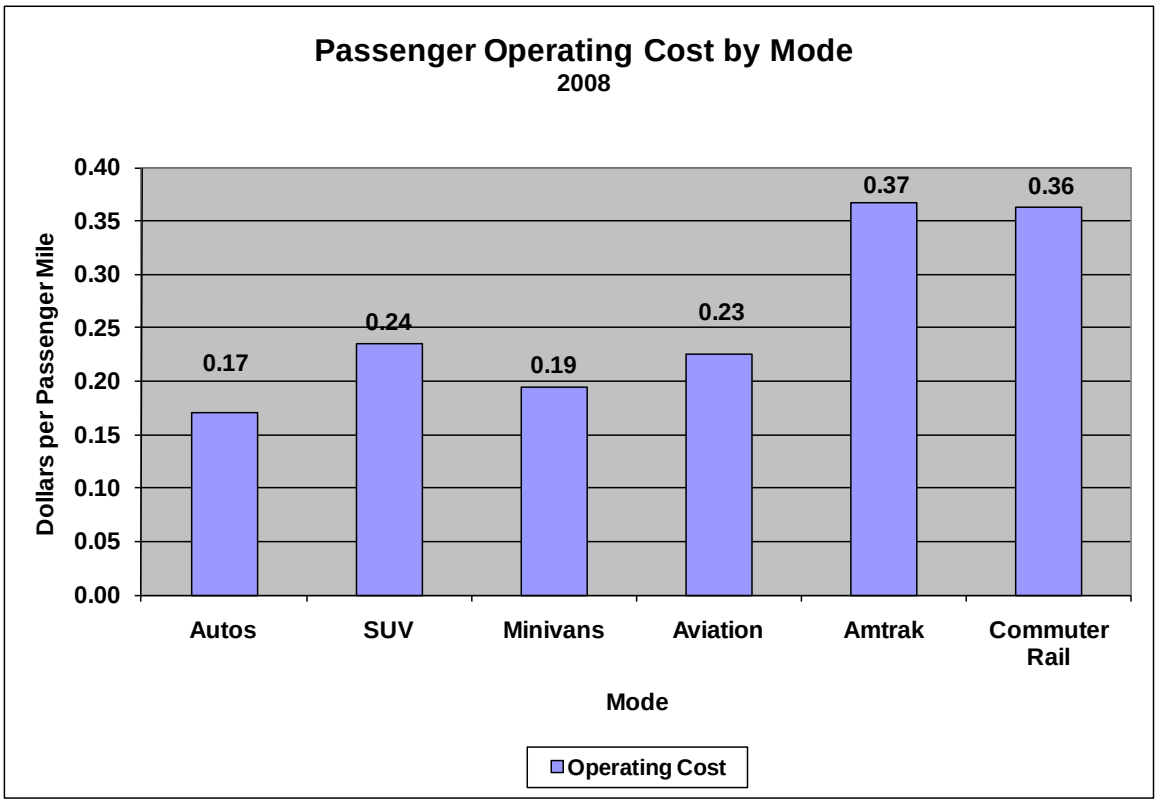
A balanced transportation system is one that accommodates the safe and efficient flow of people and goods using an integrated system of highways, aviation, rail, intercity bus, and public transit. Reviving passenger rail service in Iowa has many benefits. The expansion of intercity passenger rail would improve the nation's transportation system by reducing congestion on other modes and offering mobility options to travelers. Rail passenger service will improve access between Iowa communities. This access supports existing industries, fosters the growth of new businesses and expands the job base.

Rail passenger service can:

- Offer alternative transportation choices for:
  - 200 to 500 mile air travel trips.
  - Senior citizens.
  - Business travel.
  - Medical trips to major hospitals, such as the University of Iowa hospitals and clinics.
  - University students (30 percent of the University of Iowa's freshman class is from Chicago).
- Provide mobility options for individuals who do not wish to drive or fly.
- Create economic development and tourism opportunities.
- Reduce travel times and costs that users of other transportation modes receive because of lower congestion levels.
- Reduce emissions resulting from travelers being diverted from air, bus and auto to rail passenger.
- Relieve highway and air congestion.
- Improve public safety.
- Reduce fuel consumption per passenger-mile, potentially reducing the nation's dependence on imported oil.
- Help mitigate the negative impacts of short or prolonged energy supply disruptions and energy price increases.

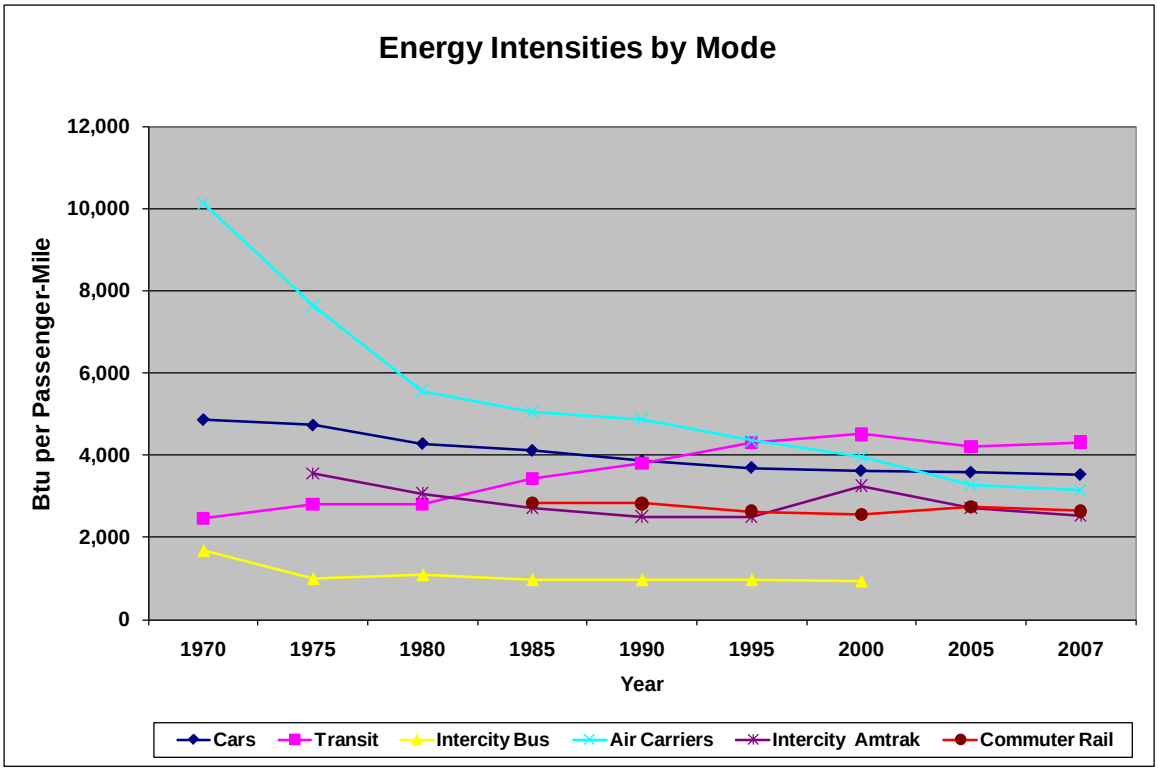
- Provide land use and travel pattern change that could improve air and water quality, as well as aesthetic appeal.
- Provide mobility and economic development opportunities to smaller communities with little or no other access to public transport.
- Assure a redundant transportation mode for use in emergencies.

The cost per passenger-mile for the various modes is presented in the following chart.



Source: AAA and U.S. Department of Transportation's Bureau of Transportation Statistics

Rail passenger service provides an alternative to auto and air travel that promotes potential environmental benefits, including reduced air pollutant emissions, less land use, and fewer habitat and water resource impacts compared to expanding existing highways and airports. The following chart shows that Amtrak service has historically used less BTUs (British thermal units) per passenger-mile than air carriers and cars.



Source: Transportation Energy Data Book, U.S. Department of Energy

In an environment of rising oil prices, rail passenger service can offer an energy-efficient and cost-effective alternative to air and automobile travel that will connect businesses and individuals with cities and towns across the Midwest.

Safety of Iowa's railroad system

Railroad network safety and security

The safety of a railroad begins with the conditions of its infrastructure and equipment. Regular examination and upkeep are critical in preventing most major incidents, such as derailments. Employee awareness and training are also integral to operating safely and ensuring that the tracks are properly maintained. As new technologies are developed and the demand for capacity grows, so should the attention to safety.

Track conditions

As stated above, the condition of the railroad track is a key factor to the safety of the railroad's general operations. Much effort must be taken to ensure that the track is maintained to an optimal level to minimize such track-related incidents, including human observation and automated track inspection techniques.

In addition to the railroad personnel that are constantly working to keep the system safe, the FRA employs inspectors in five disciplines to enforce federal safety standards, including track, operating practice, motive power and equipment, signal and train control, and hazardous materials. Inspectors from each discipline inspect railroad operations and rail infrastructure in Iowa. They identify deviations from the standards, issue violations and assess civil penalties when standards are not met. These standards differ

depending on the classification of a particular section of track. FRA classifications for railroad track are based on the maximum allowed operating speed.

Classes of track

Track classification	Freight speed	Passenger speed
Excepted	10	N/A
Class 1	10	15
Class 2	25	30
Class 3	40	60
Class 4	60	80
Class 5	80	90

Source: FRA § 213.9

Since the mid-1970s, the Iowa DOT has employed two full-time track inspectors to supplement the federal track inspectors, providing regulatory oversight of the railroad track safety to enhance railroad compliance with federal law. The Iowa DOT track inspectors are certified and licensed through the FRA and travel throughout the state visually inspecting the railroad track conditions. Each railroad also employs its own track inspectors. It is the railroad's responsibility to inspect its tracks regularly in accordance with the FRA guidelines. Failure to comply is not only hazardous to operations safety, it may also come with penalty from the FRA. FRA requirements for the frequency of track inspection are listed in the following table.

Track inspection schedule

Track classification	Type of track	Required frequency
Excepted track and Class 1, 2 and 3 track	Main track and sidings	Weekly with at least an interval of three calendar days between inspections, or before use, if the track is used less than once a week, or twice weekly with at least an interval of one calendar day between inspections, if the track carries passenger trains or more than 10 million gross tons of traffic during the preceding calendar year.
Excepted track and Class 1, 2 and 3 track	Other than main track and sidings	Monthly with at least an interval of 20 calendar days between inspections.
Class 4 and 5 track	All	Inspect twice weekly with at least an interval of one calendar day between inspections.

Source: FRA § 213.233

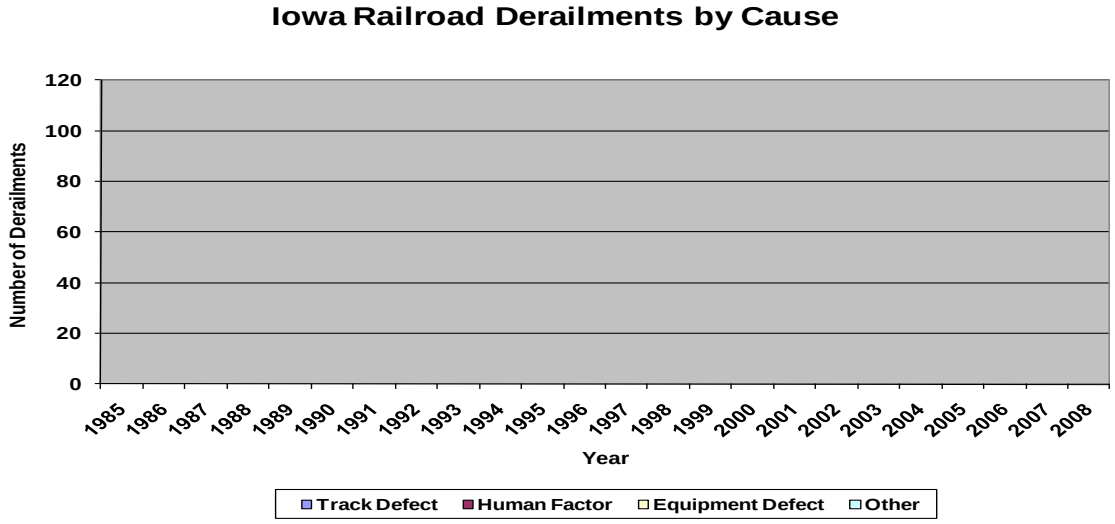
The FRA supplements human inspections with its Automated Track Inspection Program (ATIP). The ATIP uses track geometry vehicles that travel on the rails and have the ability to measure and record data related to the conditions of the track that are not able to be detected by people. The data collected is used primarily to:

- Monitor and assess the railroad's compliance with Federal Track Safety Standards.
- Function as an early indicator of the safety trends within the industry.
- Create a track data management system (TDMS).

The TDMS serves as an archive for safety studies, as well as a tool to set priorities for compliance and enforcement activities.

Derailments
A derailment occurs when on-track equipment leaves the rail for a reason other than a collision, explosion, highway-rail crossing impact or similar event. Since 1985, there has been a general decline in the number of derailments in Iowa decreasing from 86 to 53.

Most derailments are either track-related or human factor-related. Track problems mainly include broken or otherwise damaged rails. On rare occasions involving flooding, washouts may occur, endangering a train. Human factors are any type of error by the operators. This may include factors such as fatigue, communication problems or distraction. Types of equipment failures include broken flanges or couplers, bearings overheating and other similar problems. Factors not included in any of the previous three types are classified as "other." Causes of these derailments include anything from vandalism to shifting loads to even something rare, like high winds blowing cars or locomotives off the track.



Source: FRA's Office of Safety Analysis

The following table describes the number of derailments by railroad in Iowa over the last five years. The number of derailments has fluctuated among the various railroads. Certainly, the larger volume carriers represent a higher number of incidents. A discrepancy between the total number of derailments from the table below and the chart above has a simple explanation. A derailment occurring on trackage rights or from a transfer may be reported by more than one railroad. For instance, if a DAIR train were to derail on a BNSF-owned transfer track in Sioux City, the DAIR would report the derailment for its damaged equipment, whereas the BNSF may report the derailment for

track damages, as was the case on July 27, 2006.

Derailments in Iowa by railroad

Railroad	2004	2005	2006	2007	2008	Total
BNSF Railway	15	7	9	11	9	**51**
Great Western Railway of Council Bluffs	0	1	0	0	0	**1**
Cedar Rapids and Iowa City Railway Co.	3	0	1	3	3	**10**
CN (CC & CEDR)	1	2	3	5	2	**13**
D & I Railroad Co.	0	0	2	0	0	**2**
DME/ICE	33	16	9	6	12	**76**
Iowa Interstate Railroad Ltd.	2	5	6	1	7	**21**
Iowa Northern Railway Co.	2	0	3	6	1	**12**
Keokuk Junction Railway Co.	1	0	0	0	1	**2**
Union Pacific Railroad	31	30	36	34	22	**153**
Total	**88**	**61**	**69**	**66**	**57**	**341**

Source: FRA's Office of Safety Analysis

Hazardous materials in Iowa

Rail incidents involving hazardous materials occur infrequently in Iowa, but they have the potential for significant health, safety and/or property impacts. An increasing interest in national security and the potential of terrorists targeting hazardous material shipments may require added safety measures in the future. Railroads have invested hundreds of millions of dollars to upgrade and maintain their tracks, install new signal systems to regulate train operations and protect the public at highway-rail crossings, and continually educate their employees in safe handling of the trains.

Hazardous materials incidents

Year	State of Iowa			United States		
	injury	fatal	total	injury	fatal	total
2001	1	0	**15**	43	3	**899**
2002	1	0	**13**	13	1	**870**
2003	0	0	**7**	12	0	**802**
2004	0	0	**5**	99	3	**753**
2005	1	0	**17**	587	10	**736**
Total	**3**	**0**	**57**	**754**	**17**	**4060**

Source: FRA's Office of Safety Analysis

Security

Recent events, especially the 2004 Madrid, Spain, and 2005 London, England, train bombings, have increased the level of concern for the security of the nation's railroad network. By its nature, a large portion of railroad infrastructure is easily accessible and generally unprotected. For this reason, railroads are conceivable targets for terrorist organizations and individuals. Thus, a high priority has been placed on reducing the potential for railroad equipment and infrastructure to be used for terrorist attacks. Railroads and their customers have long been targets of more conventional crimes, including larceny, robbery, shipment of stolen goods or contraband, and theft of services.

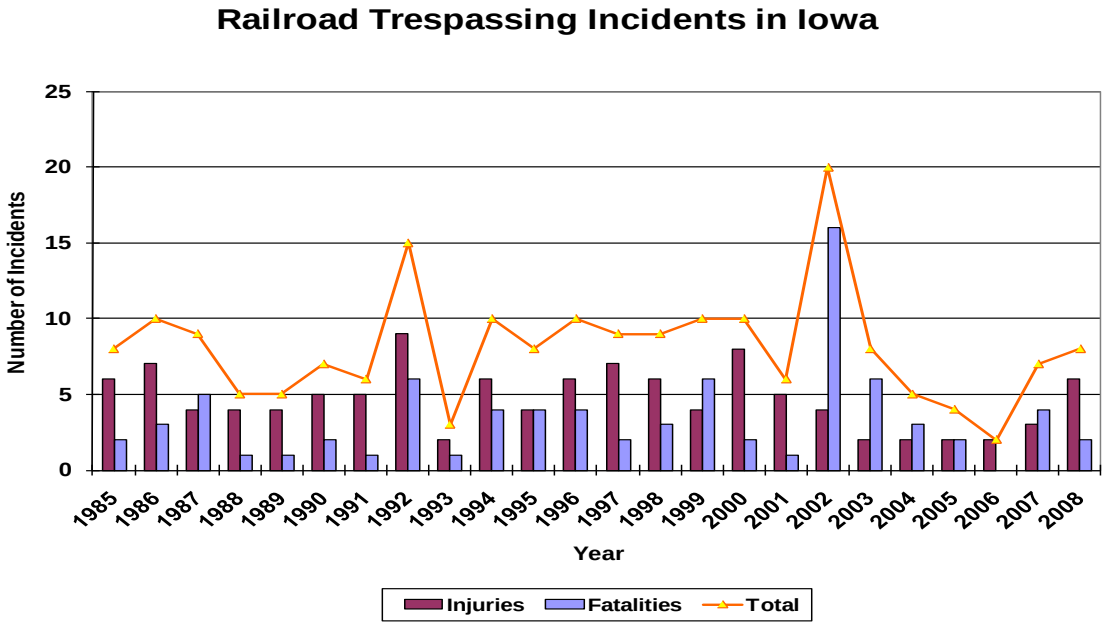
Railroads could be vulnerable to attack in numerous ways, including:

- A train hijacked to use passengers or cargo as hostages.
- Deliberate derailment of a train carrying hazardous cargo through an urban area could be detrimental to the health of its population.
- Destruction of key bridges could result in a long-term interruption of railroad service, causing economic hardship to shippers and consumers.
- A weapon placed on a train for use within a populated area or strategic location.

At the local level, railroads can help prevent such crimes and terrorism by physically blocking access to vulnerable portions of the infrastructure, such as bridges; carefully screening people who have access to the property; examining goods and containers that are presented for shipment; or in extreme cases, placing armed guards on the premises. Screening procedures can be time consuming and may require expensive equipment such as X-rays, thermal imaging, metal or radiation detectors or real-time background checks. Further, the need to make such investments or implement such procedures should be evaluated in comparison with other potential security targets. In doing so, the nation's investment in security can be directed toward the most at-risk points. Nonetheless, there are many things that can be done to improve security with little or no additional investment, including employee training, local police surveillance, and citizen involvement regarding the spotting and reporting of suspicious activity.

Trespassing
Railroad tracks, yards and bridges are private property. Generally, railroad property extends at least 50 feet from the center of the track. Any unauthorized person on railroad property is a trespasser and may be charged with trespassing. Utilizing railroad property for any use other than railroad business is illegal. Some common examples of trespassing include hunting, hiking, biking, joy riding, and taking a shortcut across a set of tracks at a location other than at a grade crossing.

Trespasser casualties occur when an individual is injured or killed while on railroad property and whose presence is prohibited, forbidden or otherwise unlawful. Trespasser casualty statistics do not include those incidents that occur at a public highway-rail grade crossing; these are included with the highway-rail crossing incident statistics.



Source: FRA's Office of Safety Analysis

Trends for trespasser casualties are very sporadic and vary greatly over a period of years. During 2008 in Iowa, there were eight incidents associated with trespassing; six involving injuries and two fatalities. In 2002, there was a special situation and is something that is currently of great concern. The situation was at a grain elevator outside of Denison, where 11 illegal immigrants from Mexico were found dead in a grain hopper. As immigration reform debates continue in Congress, this type of trespassing may become more prevalent. The Iowa DOT may want to get involved with any legislation regarding border security, especially if it deals with car- or container-screening processes at international terminals.

Remote-control locomotives

For the last several years, larger railroads — including BNSF and UP — have been developing remote-control technology for use within their yards. A 2006 FRA report on the use of remote-control locomotives (RCL) shows a slight increase in human-related incidents for use of RCL compared to conventional switching methods. The FRA found this increase very minimal and claims that the use of RCL in urban areas poses no more risk than conventional switching methods. Council Bluffs (UP), Des Moines (UP) and Sioux City (BNSF) each have RCL programs in operation. Clinton County and Fort Madison each have ordinances restricting the use of RCL technology until it is further studied.

Positive train control
Positive train control (PTC) refers to technology that will automatically stop or slow a train if there is danger ahead. PTC systems are integrated command, control, communications and information systems for controlling train movements. PTC is expected to improve railroad safety by reducing collisions between trains, casualties with railroad workers, damage to equipment, and over speed accidents. In addition to the safety benefits, PTC systems will assist railroads in measuring and managing costs including energy.

Prior to October 2008, various carriers were voluntarily installing PTC systems. On Oct. 16, 2008, the Rail Safety Improvement Act of 2008 was signed requiring certain freight and passenger railroads to implement PTC by December 2015. PTC will need to be installed on main lines that carry at least 5 million gross-tons annually over which intercity or commuter passenger rail is regularly provided, poison or toxic-by-inhalation hazardous materials are transported, or such other tracks prescribed by regulation or by the U.S. Secretary of Transportation. Currently, all of the affected railroads are aggressively pursuing development of the PTC as required and adapting their individual PTC systems to maximize interoperability.

Railroad and community interaction
Railroads are private companies and are not public infrastructure in the same sense as highways and water systems. However, railroad rights of way often pass through towns, by public and private property. Thus, physical interactions between railroads and the people and communities they serve are unavoidable, and the relationship can be positive. Cooperative efforts from both the railroads and the communities can make this a constructive coexistence. Many such programs are in place in Iowa, focusing especially on efficiency, safety and quality of life.

Railroad crossings
Safety: The most noticeable interaction between railroads and communities occurs around at-grade railroad crossings, where public roadways intersect with railroad tracks. At these points, the railroad has the right of way and road traffic must yield. Many safety measures and programs can increase safety at these junctions for the benefit of both the railroad and the community.

Railroad safety improvements can be approached in many ways, though a distinction is frequently made between education, enforcement and engineering; commonly referred to as “the three Es.” For example, Iowa’s involvement with Operation Lifesaver, a nonprofit organization sponsored by federal, state and local authorities (including the Iowa DOT) contributes to the education component. Operation Lifesaver programs educate drivers, pedestrians and school children about the dangers of railroad crossings in an effort to help them make safer decisions. Recently in coordination with the UP, Operation Lifesaver has offered many communities the opportunity to ride a portion of the railroad, educating the passengers of safety along the way.

Maintenance: Jurisdictional authority varies, depending on the classification of the roadway intersecting the railroad. While the railroad installs, owns and maintains the crossing and often the right of way to either side (generally 25 feet), the appropriate municipality (or, sometimes, private land owner) maintains the roadway approaching the crossing. Despite the multiple authorities, the *roadway must remain consistent, safe and functional for the driver who is passing by and is not much concerned with the*

maintenance responsibilities. To that end, the Iowa DOT provides funding for the state's Grade Crossing Surface Repair Program, as explained in Appendix B.

Highway-rail grade crossing incident trends

The highway-rail grade crossing safety trends presented herein were derived from the FRA's Office of Safety Analysis data displayed at the organization's Web site (http://safetydata.fra.dot.gov/officeofsafety/). Information was summarized into a database that could then be queried to discern trends.

Incidents at highway-rail crossings and accidents involving trespassers on railroad right of way continue to be critical railroad safety problems. In 2004, these two categories accounted for 94 percent of railroad-related fatalities, as reported by the Association of American Railroads (www.aar.org/Rail-Safety). According to the FRA, Iowa has 7,282 grade crossings — 4,404 are public and 2,878 are private. Of the public crossings, 922 are equipped with lights and gates, 860 with other active warning devices (i.e., lights and/or bells) and 2,622 crossings are equipped with passive devices (i.e., crossbucks or stop signs).

As a whole, the number of highway-rail incidents at public grade crossings decreased between 2004 and 2008. The percentage of incidents with injuries also declined. Despite that fact, the number of fatalities has remained about the same, leading to a higher percentage overall. In 2004, the percentage of incidents with injuries was 31 percent, while in 2008 the percentage was 35. The percentage of fatal incidents was six in 2004, but it was 7 percent in 2008.

Highway-Rail crossing incidents in Iowa

Year	All accidents			At public crossings			At private crossings		
	number	fatalities	injuries	number	fatalities	injuries	number	fatalities	injuries
2004	81	5	25	78	5	25	3	0	0
2005	77	6	32	70	6	30	7	0	2
2006	69	6	20	60	5	15	9	1	5
2007	82	7	27	74	7	27	8	0	0
2008	72	5	25	64	5	24	8	0	1

Source: FRA's Office of Safety Analysis

Accidents by warning device: The majority of crossings in Iowa are marked with passive warning devices, such as a crossbuck sign, that instructs drivers to yield to train traffic. Other crossings with higher train and/or vehicle traffic or other safety concerns are equipped with active warning devices, such as flashing lights and/or gates, which warn of an approaching train. More than 2,600 Iowa public at-grade crossings are passive crossings, where the crossing is marked by a crossbuck. Nearly 1,800 Iowa public at-grade crossings are equipped with active warning devices.

Historically, the number of incidents at Iowa's public grade crossings has been higher for those with passive warning devices. Over the last five years, the data shows a slight decrease in the overall number of incidents. However, there are still more incidents at crossings with passive warning devices, as 55 percent of the accidents occurred at crossings with only passive warning signs.

Iowa incidents at public crossings by warning device

Year	Total	Active devices		Passive devices	
		number	percent	number	percent
2004	**78**	34	44	44	56
2005	**70**	43	61	27	39
2006	**60**	25	42	35	58
2007	**74**	27	36	47	64
2008	**64**	27	42	37	58
Totals	**346**	**156**	**45**	**190**	**55**

Source: FRA's Office of Safety Analysis

Accidents by county: From 2004 to 2008, the five Iowa counties with the highest number of incidents were Black Hawk, Polk, Pottawattamie, Scott, and Woodbury. Of the 346 total highway-rail incidents over that period, these five counties accounted for nearly 25 percent of the incidents.

Although the overall safety record for Iowa and the railroad industry has improved over the past five years, a significant number of train incidents continue to occur. Moreover, recent train incidents have highlighted specific issues that need government and industry attention, and the strong growth of rail and highway traffic continues to drive up exposure at highway-rail grade crossings. The Iowa DOT will work with industry and organizations such as Operation Lifesaver to aggressively address these critical issues and implement a plan to improve railroad safety.

Iowa counties with the most incidents at public crossings

County	Year					Totals	
	2004	2005	2006	2007	2008	number	percentage
Black Hawk	3	5	5	6	1	**20**	**5.8**
Polk	3	4	3	0	1	**11**	**3.2**
Pottawattamie	9	7	2	5	2	**25**	**7.2**
Scott	4	3	1	3	0	**11**	**3.2**
Woodbury	4	5	3	4	4	**20**	**5.8**
All of Iowa	***78***	***70***	***60***	***74***	***64***	***346***	***100***

Source: FRA's Office of Safety Analysis

Blocked crossings

In an emergency, the public expects emergency response vehicles to reach the scene of an incident as quickly as possible. In everyday commuting, drivers have expectations about travel times between origins and destinations. A blocked railroad crossing can frustrate these expectations.

Iowa Code makes Iowa better managed than states without regulations, but in the area of emergency response, these regulations can still pose a problem. Local jurisdictions may pass ordinances further limiting this time if it can be shown that there are public health, safety or convenience justifications. The Iowa DOT should work with local communities to address the issue of blocked crossings on emergency response routes.

Iowa Code (§ 327G.32) explains that trains may not block a crossing for more than 10 minutes unless the following conditions apply.

- When it is necessary to comply with signals affecting the safe movement of trains;
- When it is necessary to avoid striking an object or person on the track;
- When the train is disabled; or
- When it is necessary to comply with government safety regulations, including, but not limited to, speed ordinances and regulations.

Quiet zones

One emerging community issue is the creation of "quiet zones." This issue deals with the effects on nearby residents from trains that blow their horns for grade crossings. The FRA recently released the "Final Rule on the Use of Locomotive Horns at Highway-Rail Grade Crossings," which explains the requirements for communities wishing to have "no-horn zones" in their areas or for communities needing to upgrade in order to maintain pre-existing "whistle bans." By law, a train must blow its whistle when approaching an at-grade crossing. Exceptions to this rule are available at crossings that meet a standard of safety measures for preventing collisions without a whistle. These measures include improved signing and lighting to notify drivers visually and barriers, such as gates and curbs (so drivers cannot drive around gates), to prevent collisions physically.

Part III. Appendices

This section of the *2009 Iowa Railroad System Plan* provides additional information for select topics mentioned in the plan. The topics covered in the appendices include:

- Appendix A: Government interaction with railroads.
- Appendix B: Government financial assistance programs.
- Appendix C: Midwest Regional Rail Initiative.
- Appendix D: 2008 Iowa railroad profiles.
- Appendix E: Performance measures for Iowa's railroad system.

Appendix A. Government interaction with railroads

Government activities with respect to rail transportation in Iowa can be categorized by federal or state agency involvement. At the federal level, the primary organizations involved are the Federal Railroad Administration (FRA), Surface Transportation Board (STB) and U.S. Department of Transportation (DOT). At the state level, rail interests are mainly handled by the Office of Rail Transportation within the Iowa DOT, as well as by the Iowa Department of Inspections and Appeals.

Brief historical overview

Throughout American history, rail regulation has varied in intensity. Railroads were initially given extensive land tracts and the freedom to develop their track systems. The early 1900s saw the creation of the Interstate Commerce Commission (ICC), which, among other duties, regulated railroad routes and rates. Economic troubles struck the industry in the 1970s, and multiple pieces of legislation, most notably the Stagger's Rail Act of 1980, deregulated much of the industry. As a result, railroads shed many of their less-efficient tracks (either bought by other railroads or abandoned), and increased flexibility in setting rates, routes and negotiating contracts with shippers.

The ICC was replaced by the STB in 1995, with remaining functions primarily focusing on noncompetitive routes, as well as mergers. Deregulation has been widely regarded as a positive change that has improved the financial vitality of railroads and increased return on investment, as well as funds for capital, safety and maintenance improvements.

The industry has now become consolidated into fewer large carriers focusing on primary shipping routes. Additionally, 55 percent of rail traffic now moves by negotiated contracts between the railroads and shippers. Legislative debate remains, however, about fairness of rates for shippers in communities served by only one railroad, where some shippers argue they are captive to a railroad's rates. Rail carriers respond that they are competing against other modes as well (i.e., truck carriers); therefore, they need rate flexibility across their contracts.

Federal railroad regulatory agencies

Surface Transportation Board

This STB is affiliated with the U.S. DOT and primarily serves as an arbitrator for railroad disputes concerning rates and services, as well as a regulatory authority over other transportation modes (i.e., pipelines, trucks and buses). In addition, the STB regulates industry structure through approvals of mergers, sales and acquisitions, abandonment, and the conversion of rail lines into recreational trails. Further information on the STB can be found at http://www.stb.dot.gov/.

Federal Railroad Administration
The FRA is part of the U.S. DOT. The primary responsibility of the FRA concerns enforcement of railroad safety legislation. In addition, the FRA administers railroad funding programs, and conducts policy and safety research. Further information on the FRA can be found at http://www.fra.dot.gov/.

Iowa rail regulatory agency

Iowa Department of Transportation
The primary rail regulator within the state of Iowa is the Iowa DOT. However, the Iowa DOT has limited regulatory authority. It participates in the railroad abandonment process and is involved in developing federal legislation, but it has little authority over the mostly deregulated arena of rail rates and services. When applicable, the Iowa DOT can facilitate service disputes between shippers and carriers through the Iowa Department of Inspections and Appeals.

Other areas of Iowa DOT involvement include long-range planning for railroads and financing. Financing involves loans and grants for construction and maintenance of track, maintenance and safety improvements at grade highway-rail crossings, and developing new spur tracks for economic development.

Appendix B. Government financial assistance programs

Many crossing safety programs are partially federally funded through the FRA or U.S. DOT, and sometimes through the authority of the Federal Highway Administration (FHWA) (when these programs involve highways). Common safety improvements with these funds include pavement markings, active warning devices, elimination of hazards, and crossing closures. These are primarily federally funded improvements determined by the state, with some costs shared by the state, local communities or railroads.

The Iowa DOT's Office of Rail Transportation provides detailed information on its Web site (www.iowarail.com) about many of the state and federal governmental financial assistance programs described below.

Economic development

Railroad Revolving Loan and Grant Program

The Railroad Revolving Loan and Grant Program (RRLGP) provides assistance to improve rail facilities that will spur economic development and job growth, and otherwise aid railroads in the preservation and improvement of the rail transportation system. The program can provide assistance as loans, grants or combinations thereof, but grant funding is limited to 50 percent of the total funds available. Industries, railroads, local governments or economic development agencies may apply for financial assistance for projects such as:

- Building rail spurs to a new or expanding development.
- Building or rebuilding sidings to accommodate growth.
- Purchasing or rehabilitating existing rail infrastructure.
- Rehabilitating existing rail lines to increase capacity.
- Developing other rail-related projects.

Demand for assistance from the RRLGP has far exceeded available funds. Fifty seven projects requested more than $34.3 million in assistance competing for $9.6 million in awards to 25 projects. In 2008, the Iowa legislature appropriated $2 million to the fund. The Iowa DOT has a funding initiative to increase state funding for the program called Access Rail.

Railroad Revolving Loan and Grant Program

As of December 12, 2008

SUMMARY (since origination of RRLGP)

57 projects
$34.2 million requested
25 awards
$9.6 million in total awards
Assisted in creation of **1,175 jobs**
$1.4 billion in private capital investment is associated with the awards (excludes flood restoration candidates)

June 2006 Awards

Applicant	Location	Grant	Loan	Awarded Total
Absolute Energy LLC	Mitchell Co.	$246,000	$254,000	$500,000
Cascade Lumber Company	Pleasantville	$214,000	$320,000	$534,000
Eastern Iowa Ind. Center	Davenport	$450,000	$310,791	$760,791
Green Plains Renewable Energy	Shenandoah	$126,000	$154,000	$280,000
Iowa Cold Storage	Altoona	$120,000	$259,500	$379,500
Iowa Renewable Energy LLC	Washington	$168,000	$132,000	$300,000
Marco Group International	Davenport	$22,500	$0	$22,500
Metzler Automotive	Keokuk	$60,000	$0	$60,000
	Total	**$1,406,500**	**$1,430,291**	**$2,836,791**

December 2006 Awards

Applicant	Location	Grant	Loan	Awarded Total
Siemens Wind Power	Ft. Madison	$326,000	$0	$326,000
Southern Iowa BioEnergy	Osceola	$100,000	$150,000	$250,000
	Total	**$426,000**	**$150,000**	**$576,000**

October 2007 Awards

Applicant	Location	Grant	Loan	Awarded Total
CR Terminal - IANR	Palo	$36,000	$206,000	$242,000
Norfolk Iron & Metal	Durant	$810,000	$30,000	$840,000
Big River Resources	Grinnell	$75,000	$0	$75,000
Oregon Trail Energy	Alta	$75,000	$0	$75,000
Raccoon Valley Bio Diesel	Strom Lake	$50,000	$0	$50,000
Unity Ethanol - Cedar River	Louisa County	$0	$270,000	$270,000
Unity Ethanol -Ottumwa	Ottumwa	$159,000	$111,000	$270,000
	Total	**$1,205,000**	**$617,000**	**$1,822,000**

May 2008 Immediate Opportunity Award

Applicant	Location	Grant	Loan	Awarded Total
City of Newton/Trinity Towers	Newton	$165,795	$165,795	$331,590
	Total	**$165,795**	**$165,795**	**$331,590**

July 2008 Awards - Flood Recovery

Applicant	Location	Grant	Loan	Awarded Total
Burlington Junction Railway	Track restoration	$0	$71,000	$71,000
Cedar Rapids and Iowa City Railway Co.	Track restoration	$0	$320,000	$320,000
Keokuk Junction Railway Co.	Track restoration	$0	$554,000	$554,000
Iowa, Chicago and Eastern Railroad Corp.	Track restoration	$0	$1,417,000	$1,417,000
Iowa Interstate Railroad Ltd.	Track restoration	$0	$772,000	$772,000
Iowa Northern Railway Co.	Track restoration	$0	$681,000	$681,000
Iowa River Railroad	Track restoration	$0	$184,000	$184,000
	Total	**$0**	**$3,999,000**	**$3,999,000**

TOTAL (since origination of RRLGP)	$3,203,295	$6,362,086	$9,565,381

For further program information or questions, please contact the Iowa DOT's Office of Rail Transportation at 515-239-1140 or iowarail.com.

Safety and maintenance programs

Railway-Highway Grade Crossing Safety Fund

This federally funded program provides financial assistance to improve rail crossings over highways. Approved projects are 90 percent federally funded, with 10 percent provided by the railroad and/or highway authority. These funds are used to install new crossing signal devices, upgrade existing signals, improve crossing surfaces, and provide low-cost improvements such as increased sight distance, widened crossings, increased signal lens size or crossing closures.

Funding is competitive, determined by a cost-benefit analysis that considers costs, estimated benefits and the severity of crash risk at a location. The proposed project must be approved by the Iowa DOT and Iowa Transportation Commission before being placed in the Statewide Transportation Improvement Program. Annual funding is approximately $4 to $5 million.

Railway-Highway Grade Crossing Safety Program
(Federal-Aid)
2009 Construction Program

Federal ID #	Railroad	Highway jurisdiction	Road location	Type of improvement	Federal funds
865627B	ICE	Bettendorf	Shoreline Drive	Signals w/gate arms	$ 195,000
376147P	ICE	Guttenberg	Herder Street	Signals w/gate arms	$ 230,000
079145H	BNSF	Monroe County	Monroe County Road T-55	Signals w/gate arms	$ 185,000
376129S	ICE	Dubuque	Hawthorne Street	Signals w/gate arms	$ 145,000
864238S	NS	Des Moines	Maury Street	Signals w/gate arms	$ 200,000
385535M	ICE	Garner	Allen Street	Signals w/gate arms	$ 180,000
376145B	ICE	Guttenberg	Koerner Street	Signals	$ 145,000
607883H	IAIS	Polk County	Northeast 86th Street	Signals	$ 120,000
063225D	BNSF	Albia	North Eighth Street	Circuitry upgrade - CWT	$ 150,000
876065N	UP	Story County	West Maple Avenue	Signals w/gate arms	$ 190,000
307818Y	CC	Linn County	C Avenue Extension	Signals w/gate arms	$ 140,000
097449W	BNSF	DOT	Iowa 10	Signals w/gate arms	$ 140,000
307004E	CC	Delaware County	332nd Avenue	Signals w/gate arms	$ 160,000
382079E	BNSF	DOT	Riverside Boulevard	Circuitry upgrade - CWT	$ 45,000
307008G	CC	Delaware County	330th Avenue	Signals w/gate arms	$ 160,000
307286X	CC	Hardin County	JJ Avenue	Signals w/gate arms	$ 170,000
086564X	BNSF	Sioux City	Fourth Street	Signals w/gate arms	$140,000
063327W	BNSF	Middletown	Boundary Street	Circuitry upgrade - CWT	$ 180,000
380039A	ICE	Grafton	Third Street	Signals w/gate arms	$ 150,000
307508E	CC	Storm Lake	Geneseo Street	Signals w/gate arms	$ 150,000
307459K	CC	Fonda	Main Street	Signals w/gate arms	$ 150,000
078048V	BNSF	Lee County	263rd Avenue	Signals w/gate arms	$ 150,000
307705B	CC	Buchanan County	Golf Course Boulevard	Signals w/gate arms	$ 150,000
082356H	BNSF	Lyon County	Lyon County Road K-42	Signals w/gate arms	$ 120,000
190983D	UP	Crawford County	N Avenue	Signals w/gate arms	$ 190,000
307597Y	CC	Cherokee County	F Avenue	Signals w/gate arms	$ 150,000
				Crossing closure statewide	$ 25,000
				Yield sign pilot project	$ 110,446
Total					$4,220,446

2009 Railway-Highway Grade Crossing Safety Program
(Federal-Aid)
Surface Repair Projects

County	Federal ID #	Railroad	Highway jurisdiction	Road location	Federal safety funds (60%)
Clinton	376036X	ICE	Clinton	17th Avenue North	$ 63,485
Hamilton	307338M	CC	Webster City	Broadway Street	$ 55,260
Benton	607647D	IANR	Vinton	Eighth Avenue	$ 39,480
Black Hawk	911786J	CEDR	Cedar Falls	Lone Tree Road	$ 33,120
Clinton	190350N	ICE	Clinton	Fourth Avenue North	$ 32,100
Linn	376722W	CIC	Cedar Rapids	L Street Southwest – 900 Block	$ 45,000
Muscatine	606852F	IAIS	West Liberty	North Calhoun Street	$ 34,263
Black Hawk	607537T	IANR	La Porte City	Commercial and Eighth streets	$ 21,246
Polk	603713A	IAIS	Des Moines	Southeast Second Street	$ 37,200
Cedar	606860X	IAIS	Cedar County	Baker Avenue	$ 36,688
Muscatine	606851Y	IAIS	West Liberty	Prairie Street	$ 37,171
Linn	190494T	UP	Cedar Rapids	10th Street Southeast and Otis Road	$ 74,415
Dubuque	306988P	CC	Farley	Third Street Northeast	$ 39,720
Lee	078050W	BNSF	Lee County	Ortho Road	$ 23,040
Polk	603710E	IAIS	Des Moines	Southeast Fifth Street	$ 37,200
Black Hawk	308802F	CEDR	Cedar Falls	Dunkerton Road	$ 36,060
Lee	078040R	BNSF	Lee County	245th Avenue	$ 23,040
Crawford	308332A	CC	Crawford County	Nelson Park Road	$ 32,880
Floyd	308897R	CC	Floyd County	220th Street	$ 31,800
Lee	078041X	BNSF	Lee County	245th Avenue	$ 23,040
Linn	190500U	UP	Cedar Rapids	Ninth Avenue Southeast and Fourth Street	$ 98,430
Mitchell	309012D	CC	Mitchell County	Mitchell County Road A-19	$ 28,800
Lee	078276H	BNSF	Lee County	180th Street	$ 23,040
Sac	190931L	CC	Sac County	360th Street	$ 48,960
Linn	190499C	UP	Cedar Rapids	10th Avenue Southeast – 400 Block	$ 40,200
Total					$ 995,638

Railway-Highway Grade Crossing Safety Program
(Federal-Aid)
2009 Preliminary Engineering and 2010 Construction Program

Federal ID #	Applicant*	Railroad	Highway jurisdiction	Road location	Present warning device	Type of improvement	B/C ratio	Federal funds
191103A	RR	UP	Pottawattamie County	Joslin Avenue	Signals	Signals w/gate arms	5.2	$ 175,000
307110 M	RR	CC	Waterloo	North Evans Road	Crossbucks	Signals w/gate arms	3.2	$ 175,000
307177U	RR	CC	Waterloo	Wagner Road	Signals	Signals w/gate arms	2.8	$ 125,000
385521E	RR	ICE	Ventura	McIntosh Road	Crossbucks	Signals	2.8	$ 150,000
307112B	RR	CC	Waterloo	Osage Road	Crossbucks	Signals w/gate arms	2.6	$ 175,000
095276C	RR/HA	BNSF	Mills County	262nd Street	Crossbucks	Signals w/gate arms	2.3	$ 180,000
876128R	RR	UP	Hardin County	140th Street	Crossbucks	Signals w/gate arms	2.3	$ 200,000
190676E	RR	UP	Marshall County	Canfield Avenue	Crossbucks	Signals w/gate arms	2.3	$ 210,000
608601T	RR	UP	Winnebago County	20th Avenue	Signals	Signals w/gate arms	2.3	$ 180,000
185856S	HA	UP	Osceola County	260th Street	Crossbucks	Signals w/gate arms	2.2	$ 200,000
191084X	RR	UP	Pottawattamie County	Desota Avenue	Signals	Signals w/gate arms	2.1	$ 175,000
876184X	RR/HA	UP	Cerro Gordo County	130th Street	Crossbucks	Signals w/gate arms	2.0	$ 190,000
876082E	RR	UP	Story County	210th Street	Crossbucks	Signals w/gate arms	1.9	$ 220,000
378243Y	HA	IAIS	Council Bluffs	South 17th Street	Crossbucks	Signals w/gate arms	1.9	$ 175,000
876083L	RR	UP	Story County	200th Street	Crossbucks	Signals w/gate arms	1.9	$ 220,000
191348R	RR/HA	UP	Sioux City	Donner Avenue	Crossbucks	Signals w/gate arms	1.9	$ 185,000
876113B	RR	UP	Hardin County	220th Street	Crossbucks	Signals w/gate arms	1.9	$ 220,000
307510F	HA	CC	Storm Lake	Ontario Street	Crossbucks	Signals w/gate arms	1.8	$ 175.000
307185L	RR	CC	Cedar Falls	Main Street East	Signals	Signals w/gate arms	1.8	$ 175,000
						Crossing closures		$ 22,500
						statewide yield sign pilot project		$ 40,000
Total								$ 3,567,500

2010 Railway-Highway Grade Crossing Safety Program
(Federal-Aid)
Surface Repair Projects

County	Federal ID #	Railroad	Highway jurisdiction	Road location	Federal safety funds (60%)
Des Moines	078061J	BNSF	Des Moines County	120th Avenue	$ 23 040
Muscatine	606835P	IAIS	Muscatine County	Muscatine County Road X-54	$ 36,000
Muscatine	606824C	IAIS	Wilton	Chestnut Street	$ 36,000
Muscatine	606821G	IAIS	Muscatine County	Muscatine County Road Y-14 and Taylor Avenue	$ 36,000
Muscatine	606822N	IAIS	Wilton	Cypress Street	$ 36,000
Muscatine	606828E	IAIS	Wilton	Liberty Street	$ 36,000
Woodbury	382070T	BNSF	Sioux City	Hamilton Boulevard	$ 67,200
Muscatine	607211C	ICE	Muscatine	Oregon Street	$ 157,000
Woodbury	064026E	BNSF	Sioux City	18th Street	$ 90,000
Woodbury	064029A	BNSF	Sioux City	11th Street	$ 67,200
Washington	607322U	ICE	Washington	North Fourth Avenue	$ 77,601
Woodbury	382038A	BNSF	Sioux City	Virginia Street	$ 48,000
Muscatine	607215E	ICE	Muscatine	Sampson Avenue	$ 111,524
Buchanan	307085G	CC	Jesup	Main Street	$ 71,919
Cerro Gordo	385471D	ICE	Cerro Gordo County	Thrush Avenue	$ 327,692
Total					$ 931,976

Railway-Highway Grade Crossing Safety Fund
(Federal-Aid)
2010 Accomplishment Program Candidates

Federal ID #	Applicant*	Railroad	Highway jurisdiction	Road location	Present warning device	Type of improvement	B/C ratio	Federal funds
191103A	RR	UP	Potawattamie County	Joslin Avenue	Signals	Signals w/gate arms	5.2	$ 180,000
307110M	RR	CC	Waterloo	North Evans Road	Crossbucks	Signals w/gate arms	3.2	$ 175,000
307177U	RR	CC	Waterloo	Wagner Road	Signals	Signals w/gate arms	2.8	$ 140,000
385521E	HA	ICE	Ventura	McIntosh Road	Crossbucks	Signals	2.8	$ 160,000
307112B	RR	CC	Waterloo	Osage Road	Crossbucks	Signals w/gate arms	2.6	$ 175,000
095276C	RR/HA	BNSF	Mills County	262nd Street	Crossbucks	Signals w/gate arms	2.3	$ 180,000
876128R	RR	UP	Hardin County	140th Street	Crossbucks	Signals w/gate arms	2.3	$ 200,000
190676E	RR	UP	Marshall County	Canfield Avenue	Crossbucks	Signals w/gate arms	2.3	$ 210,000
608601T	RR	UP	Winnebago County	20th Avenue	Signals	Signals w/gate arms	2.3	$ 180,000
185856S	HA	UP	Osceola County	260th Street	Crossbucks	Signals w/gate arms	2.2	$ 200,000
191084X	RR	UP	Pottawattamie County	Desota Avenue	Signals	Signals w/gate arms	2.1	$ 180,000
876184X	RR/HA	UP	Cerro Gordo County	130th Street	Crossbucks	Signals w/gate arms	2.0	$ 190,000
876082E	RR	UP	Story County	210th Street	Crossbucks	Signals w/gate arms	1.9	$ 220,000
378243Y	HA	IAIS	Council Bluffs	South 17th Street	Crossbucks	Signals w/gate arms	1.9	$ 175,000
876083L	RR	UP	Story County	200th Street	Crossbucks	Signals w/gate arms	1.9	$ 220,000
191348R	RR/HA	UP	Sioux City	Donner Avenue	Crossbucks	Signals w/gate arms	1.9	$ 195,000
876113B	RR	UP	Hardin County	220th Street	Crossbucks	Signals w/gate arms	1.9	$ 220,000
307510F	HA	CC	Storm Lake	Ontario Street	Crossbucks	Signals w/gate arms	1.8	$ 175,000
307185L	RR	CC	Cedar Falls	Main Street East	Signals	Signals w/gate arms	1.8	$ 175,000
						Crossing closures statewide yield sign pilot project		$ 22,500
								$ 40,000
Total								$ 3,612,500

*HA = Highway authority

Highway-Railroad Grade Crossing Surface Repair Fund

This sate-funded program is similar to the federal crossing safety fund. Railroad companies, private rail operators or governmental jurisdictions may apply for funding from the Iowa DOT. This fund will support 60 percent of the project costs, with the remainder coming from the railroad (20 percent) and public road jurisdiction (20 percent), both of whom enter into a project agreement with the Iowa DOT.

Projects are approved by the Iowa DOT and Iowa Transportation Commission. Funding stands at approximately $900,000 per year, but is currently backlogged by four years (Iowa Admin. Code r. 761-821).

2008 Highway-Railroad Grade Crossing Surface Repair Program (State Funded)

County	Federal ID #	Railroad	Highway jurisdiction	Road location	State surface repair fund (60%)
Muscatine	606733W	ICE	Muscatine	Steward Road	$ 54,863
Muscatine	607216L	ICE	Muscatine	33rd Street	$ 31,792
Hancock	385572P	COOP	Hancock County	Eden Avenue	$ 26,820
Hancock	385572P	ICE	Hancock County	Eden Avenue	$ 24,318
Clay	385734P	COOP	Everly	North Main Street	$ 28,009
Clay	385734P	ICE	Everly	North Main Street	$ 28,009
Polk	607889Y	IAIS	Mitchellville	Center Avenue South	$ 44,035
Polk	607886D	IAIS	Polk County	Cotton Avenue Northwest	$ 37,721
Polk	607887K	IAIS	Mitchellville	Elm Avenue Northwest	$ 32,518
Polk	607890T	IAIS	Mitchellville	Arch Avenue Southeast	$ 44,083
Jasper	607891A	IAIS	Jasper County	West 148th Street South	$ 31,316
Webster	308165D	CC	Webster County	Webster County Road P-29	$ 33,960
Webster	307410B	CC	Webster County	Webster County Road P-29	$ 33,960
Pocahontas	307461L	CC	Pocahontas County	130th Avenue	$ 31,035
Pocahontas	307451F	CC	Pocahontas County	190th Avenue	$ 31,035
Pocahontas	307458D	CC	Pocahontas County	140th Avenue	$ 40,230
Linn	840221V	CIC	Cedar Rapids	76th Avenue Southwest	$ 35,300
Clinton	376043H	ICE	Clinton	30th Avenue North	$ 51,815
Clinton	865520Y	ICE	Clinton	13th Avenue South	$ 37,900
Crawford	308276V	CC	Crawford County	C Avenue	$ 29,520
Black Hawk	607684F	IANR	La Porte City	Bishop Avenue	$ 37,338
Black Hawk	307897M	CC	Waterloo	Rainbow Drive	$ 54,900
Marion	484075K	BNSF	Hamilton	East Depot Street	$ 32,040
Black Hawk	607534X	IANR	La Porte City	Cedar Street	$44,274
Total					$ 876,791

2009 Highway-Railroad Grade Crossing Surface Repair Program (State Funded)

County	Federal ID #	Railroad	Highway jurisdiction	Road location	State surface repair fund (60%)
Floyd	607724B	IANR	Rockford	Fourth Street Southwest	$ 20,400
Floyd	607725H	IANR	Rockford	West Main Avenue	$ 29,700
Scott	604343C	IAIS	Davenport	Brown Street	$ 60,000
Chickasaw	385296P	ICE	Chickasaw County	Chickasaw County Road B-57	$ 42,433
Chickasaw	385310H	ICE	Chickasaw County	Chickasaw County Road T-76	$ 30,296
Clayton/Allamakee	385177F	ICE	Clayton/Allamakee County	Hardin Drive	$ 40,306
Calhoun	307418F	CC	Calhoun County	Xavier Avenue	$ 34,260
Calhoun	308187D	CC	Calhoun County	Sigourney Avenue	$ 34,260
Calhoun	308234J	CC	Calhoun County	Dakota Avenue	$ 34,800
Calhoun	308219G	CC	Calhoun County	Jennings Avenue	$ 34,800
Appanoose	375695Y	ICE	Appanoose County	200th Avenue	$ 33,780
Appanoose	375697M	ICE	Appanoose County	Appanoose County Road J-29	$ 33,780
Appanoose	375692D	ICE	Appanoose County	First Street	$ 33,780
Wright	197025R	UP	Goldfield	Cedar Street	$ 49,815
Black Hawk	308807P	CEDR	Black Hawk County	Black Hawk County Road C-57	$ 34,740
Washington	607323B	ICE	Washington County	12th Avenue	$ 38,975
Washington	375878S	ICE	Washington County	North B Avenue	$ 41,010
Lee	063235J	BNSF	Fort Madison	20th Street	$ 18,238
Lee	063236R	BNSF	Fort Madison	19th Street	$ 18,238
Lee	063240F	BNSF	Fort Madison	18th Street	$ 18,238
Lee	078036B	BNSF	Fort Madison	Henry Layden Road	$ 18,238
Dallas	603374X	IAIS	Dexter	Marshall Street	$ 72,120
Dallas	603371C	IAIS	Dexter	Barton Street	$ 60,540
Black Hawk	307900T	CC	Waterloo	Maynard	$ 35,640
Total					$ 868,928

2010 Highway-Railroad Grade Crossing Surface Repair Program
(State Funded)

County	Federal ID #	Railroad	Highway jurisdiction	Road location	State surface repair fund (60%)
Black Hawk	307119Y	CC	Waterloo	Glenwood Street	$ 91,200
Mills	074388T	BNSF	Mills County	Allis Road	$ 21,000
Mills	074379U	BNSF	Mills County	Hanna Road	$ 21,000
Clay	385702J	ICE	Clay County	260th Avenue	$ 60,510
Clay	385693M	ICE	Clay County	300th Street	$ 60,510
Clay	385699D	ICE	Clay County	270th Avenue	$ 60,510
Clay	385690S	ICE	Clay County	320th Street	$ 60,510
Buena Vista	307528R	CC	Buena Vista County	West Highway M-31	$ 37,980
Buena Vista	307475U	CC	Buena Vista County	Rogers Road	$ 37,980
Total					$ 451,200

2009 Highway-Railroad Grade Crossing Surface Repair Program by Highway Jurisdiction
(State Funded)

County	Federal ID #	Railroad	Highway jurisdiction	Road location	Government funding source	
Cost distribution		20%	20%		State surface repair fund 60%	Federal-aid rail-highway safety fund 60%
Appanoose	375695Y	ICE	Appanoose	200th Avenue	$ 33,780	
Appanoose	375697M	ICE	Appanoose	Appanoose County Road J-29	$ 33,780	
Appanoose	375692D	ICE	Appanoose	First Street	$ 33,780	
Black Hawk	308807P	CEDR	Black Hawk	Black Hawk County Road C-57	$ 34,740	
Calhoun	307418F	CC	Calhoun	Xavier Avenue	$34,260	
Calhoun	308187D	CC	Calhoun	Sigourney Avenue	$ 34,800	
Calhoun	308234J	CC	Calhoun	Dakota Avenue	$ 34,800	
Calhoun	308219G	CC	Calhoun	Jennings Avenue	$ 34,800	
Cedar	606860X	IAIS	Cedar	Baker Avenue		$ 36,688
Black Hawk	911786J	CEDR	Cedar Falls	Lone Tree Road		$ 33,120
Black Hawk	308802F	CEDR	Cedar Falls	Dunkerton Road		$ 36,060
Linn	376722W	CIC	Cedar Rapids	L Street Southwest – 900 Block		$ 45,000
Linn	190494T	UP	Cedar Rapids	10th Street Southeast and Otis Road		$ 74,415
Linn	**190500U**	**UP**	**Cedar Rapids**	**Ninth Avenue Southeast and Fourth Street**		**$ 98,430**
Linn	190499C	UP	Cedar Rapids	10th Avenue Southeast – 400 Block		$ 40,200
Chickasaw	385296P	ICE	Chickasaw	Chickasaw County Road B-57	$ 42,433	
Chickasaw	385310H	ICE	Chickasaw	Chickasaw County Road T-76	$ 30,296	
Clayton/Allamakee	385177F	ICE	Clayton/Allamakee	Hardin Drive	$ 40,306	
Clinton	376036X	ICE	Clinton	17th Avenue North		$ 63,485
Clinton	190350N	ICE	Clinton	Fourth Avenue North		$ 32,100
Crawford	308332A	CC	Crawford	Nelson Park Road		$ 32,880
Scott	604343C	IAIS	Davenport	Brown Street	$ 60,000	
Polk	603713A	IAIS	Des Moines	Southeast Second Street		$ 37,200
Polk	603710E	IAIS	Des Moines	Southeast Fifth Street		$ 37,200
Dallas	603374X	IAIS	Dexter	Marshall Street	$ 72,120	
Dallas	603371C	IAIS	Dexter	Barton Street	$ 60,540	
Dubuque	306988P	CC	Farley	Third Street Northeast		$ 39,720
Floyd	308897R	CC	Floyd	220th Street		$ 31,800
Lee	063235J	BNSF	Fort Madison	20th Street	$ 18,238	
Lee	063236R	BNSF	Fort Madison	19th Street	$ 18,238	
Lee	063240F	BNSF	Fort Madison	18th Street	$ 18,238	
Lee	078036B	BNSF	Fort Madison	Henry Layden Road	$ 18,238	
Wright	197025R	UP	Goldfield	Cedar Street	$ 49,815	
Black Hawk	607537Y	IANR	La Porte City	Commercial and Eighth streets		$ 21,246
Lee	078050W	BNSF	Lee	Ortho Road		$ 23,040
Lee	078040R	BNSF	Lee	245th Avenue		$ 23,040
Lee	078041X	BNSF	Lee	245th Avenue		$ 23,040
Lee	078276H	BNSF	Lee	180th Street		$ 23,040
Mitchell	309012D	CC	Mitchell	Mitchell County Road A-19		$ 28,800
Floyd	607724B	IANR	Rockford	Fourth Street Southwest	$ 20,400	
Floyd	607725H	IANR	Rockford	West Main Avenue	$ 29,700	
Sac	190931L	CC	Sac	360th Street		$ 48,960
Benton	607647D	IANR	Vinton	Eighth Street		$ 39,480
Washington	607323B	ICE	Washington	12th Avenue	$ 38,975	

Washington	375878S	ICE	Washington	North B Avenue	$ 41,010	
Black Hawk	307173S	CC	Waterloo	Burton Avenue	$ 79,680	
Hamilton	307338M	CC	Webster City	Broadway Street		$ 55,260
Muscatine	606852F	IAIS	West Liberty	North Calhoun Street		$ 34,263
Muscatine	606851Y	IAIS	West Liberty	Prairie Street		$ 37,171
Totals					$ 912,968	$ 995,638

2010 Highway-Railroad Grade Crossing Surface Repair Program by Highway Jurisdiction (State Funded)

County	Federal ID #	Railroad	Highway jurisdiction	Road location	Government funding source	
Cost Distribution		20%	20%		state surface repair fund 60%	Federal-aid rail-highway safety fund 60%
Story	196987F	UP	Ames	16th Street	$ 24,600	
Story	197071S	UP	Ames	Ninth Street	$ 19,680	
Buena Vista	307528R	CC	Buena Vista	West Highway M-3	$ 37,980	
Buena Vista	307475U	CC	Buena Vista	Rogers Road	$ 37,980	
Cerro Gordo	385471D	ICE	Cerro Gordo	Thrush Avenue		$ 37,692
Clay	385702J	ICE	Clay	260th Avenue	$ 60,510	
Clay	385693M	ICE	Clay	300th Avenue	$ 60,510	
Clay	385699D	ICE	Clay	270th Avenue	$ 60,510	
Clay	385690S	ICE	Clay	320th Avenue	$ 60,510	
Des Moines	078061J	BNSF	Des Moines	120th Avenue		$ 23,040
Buchanan	307086N	CC	Jesup	Sixth Street		$ 42,731
Buchanan	307085G	CC	Jesup	Main Street		$ 71,919
Mills	074388T	BNSF	Mills	Allis Road	$ 21,000	
Mills	074379U	BNSF	Mills	Hanna Road	$ 21,000	
Muscatine	606835P	IAIS	Muscatine	Muscatine County Road X-54		$ 36,000
Muscatine	606821G	IAIS	Muscatine	Muscatine County Road Y-14 and Taylor Avenue		$ 36,000
Muscatine	607211C	ICE	Muscatine	Oregon Street		$ 157,800
Muscatine	607215E	ICE	Muscatine	Sampson Avenue		$ 111,524
Woodbury	382070T	BNSF	Sioux City	Hamilton Boulevard		$ 67,200
Woodbury	064026E	BNSF	Sioux City	18th Street		$ 90,000
Woodbury	064029A	BNSF	Sioux City	11th Street		$ 67,200
Woodbury	382038A	BNSF	Sioux City	Virginia Street		$ 48,000
Washington	607322U	ICE	Washington	North Fourth Avenue		$ 77,601
Black Hawk	307119Y	CC	Waterloo	Glenwood Street	$ 91,200	
Black Hawk	307116D	CC	Waterloo	Polk Street	$ 93,600	
Black Hawk	307167N	CC	Waterloo	Dawson Street	$ 93,600	
Black Hawk	307168V	CC	Waterloo	Columbia Street	$ 88,620	
Black Hawk	307115W	CC	Waterloo	Colorado Street	$ 64,920	
Black Hawk	307900T	CC	Waterloo	Maynard Street	$ 35,640	
Muscatine	606824C	IAIS	Wilton	Chestnut Street		$ 36,000
Muscatine	606822N	IAIS	Wilton	Cypress Street		$ 36,000
Muscatine	606828E	IAIS	Wilton	Liberty Street		$ 36,000
Totals					$ 871,860	$ 974,707

Highway Grade Crossing Safety Program

This state-funded program helps railroads pay for up to 75 percent of the maintenance costs of active warning systems installed after 1973. Applicable expenses include costs incurred by a railroad associated with the repair or replacement of obsolete, worn out, damaged or missing component parts of an approved active warning device.

This program is administered by the Iowa DOT's Office of Rail Transportation, which may be contacted for more information (Iowa Admin. Code r. 761-820).

Capital improvement and maintenance programs

Railroad Rehabilitation and Improvement Financing (RRIF) Program

This program, administered by the FRA, provides direct loans and loan guarantees to acquire, improve or rehabilitate intermodal or rail facilities, develop new intermodal or rail facilities, or refinance outstanding debt. The program is open to a wide range of rail interests, including railroads, railroad partnerships, local and state governments, and government-sponsored authorities.

The program was reauthorized under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and was granted the authority to offer financial assistance of up to $35 billion. Of this amount, $7 billion is reserved for Class II and III railroads. SAFETEA-LU also increased the scope and focus of potential applicants, allowing loans to focus on congestion problems on nationally significant rail lines.

Applications and further program information can be found on FRA's Web site at www.fra.dot.gov or the Railroad Rehabilitation and Improvement Financing Program's Web site at http://www.fra.dot.gov/us/content/177.

Appendix C. Midwest Regional Rail Initiative

The MWRRI is a cooperative, multi-agency effort that began in 1996 and involves nine Midwest states (Indiana, Illinois, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin). The MWRRI is an evolving plan to expand passenger rail service throughout the Midwest from a Chicago hub. Cooperation between a consortium of the state departments of transportation (DOTs), Amtrak and FRA has produced a plan for a proposed 3,000-mile rail network connecting major Midwestern cities by high-performance rail service, with additional feeder bus routes connecting other communities to rail stations.

The focus of the MWRRI is to:

- Reduce travel times.
- Improve service reliability.
- Expand regional travel services.
- Improve passenger and freight train safety.
- Create development opportunities.

Routes
The system is modeled as a “hub-and-spoke” network, with the center (or hub) located in Chicago and spokes radiating out to other cities. The following map shows the general route plan.

The system would utilize existing freight tracks (via agreements with freight railroads). Trains moving at maximum speeds ranging from 79 to 110 mph would serve the major metropolitan corridors of the region. The study found that approximately 90 percent of the region’s population would be within a one-hour ride/drive of a railroad station and/or within 30 minutes of a feeder bus station, as shown as dashed lines in following map.

Proposed MWRRI Network

Source: Midwest Regional Rail System, Executive Report, September 2004

The 1998 Iowa Rail Route Alternatives Analysis study evaluated the potential for rail passenger service on three routes across Iowa: the existing Amtrak routing on the BNSF following U.S. 34 through southern Iowa; IAIS along I-80; and UP following U.S. 30 through Cedar Rapids and Ames. This Iowa study concluded that the most attractive route would be the IAIS because of its superior connectivity, convenience and proximity to population centers. Details of the study are located at http://www.iowarail.com/passenger/mwrail_iarouteanaylysis_1998.pdf.

Ridership

Systemwide ridership has been projected at 13.6 million passengers in 2025, assuming the system is fully constructed at that time. Ridership along the Iowa portion of the Chicago-Omaha corridor is projected to be 605,000 in 2010 and increase to 688,000 in 2020.

Fares

For the markets served, the MWRRI is expected to provide a level of service, comfort, convenience, and a wide range of fares that will attract a broad spectrum of travelers.

Example of one-way fares

City pairs	Estimated fares	
	Nonbusiness	Business
Des Moines-Omaha	$30	$40

Source: Midwest Regional Rail System, Executive Report, September 2004

Schedule

The schedule was designed to first attract the business traveler, and second the social traveler. The normal travel time schedule assumes that service would stop in all principal towns en route, while the express schedule would skip several stops along the way. The MWRRI service plan includes four round trips per day Omaha and Des Moines, and five round trips each day from Des Moines to Chicago. According to the operating schedule, the operating speed from Chicago to Omaha averages about 67 mph.

Proposed operating schedule
Chicago to Omaha

Station	Milepost	Travel time (normal)	Travel time (express)
Chicago, Ill.	0.0	0:00	0:00
Naperville, Ill.	28.4	0:21	
Princeton, Ill.	104.4	1:13	
Quad Cities, Ill.	165.5	2:08	2:01
Iowa City, Iowa	221.0	3:06	3:00
Newton, Iowa	306.7	4:21	4:15
Des Moines, Iowa	341.9	5:02	4:55
Atlantic, Iowa	424.2	6:14	6:08
Omaha, Neb.	479.0	7:11	7:05

Source: Iowa Rail Route Alternative Analysis

Improvements and funding

The MWRRI would require improvements in track infrastructure to handle the proposed speeds of the trains. Approximate needs for improvements were estimated to be $638 million for infrastructure (including track, signaling and stations) and $167 million for train equipment, totaling $805 million for the entire Chicago-Omaha corridor in 2004 (2002 dollars). These costs would be shared between Illinois, Iowa, Amtrak, and the federal government.

Revenues and expenses

The goal of the MWRRI is to improve rail passenger service with public investments in infrastructure and equipment. The MWRRI is expected to be a cost-effective system to operate and its financial performance to improve as the system matures. All corridors are projected to generate sufficient operating revenues to cover operating costs by the year 2025. However, during the construction and startup phases, system revenues will not be sufficient to cover all system operating costs.

Operating revenues and expenses

	Operating revenues (millions of 2002 $)		Operating and maintenance cost (millions of 2002 $)		Operating ratio	
	2014	2025	2014	2025	2014	2025
Chicago-Omaha	$53	$61	$59	$60	0.90	1.02
Total MWRRI System	$528	$632	$453	$466	1.17	1.36

Source: Midwest Regional Rail System, Executive Report, September 2004

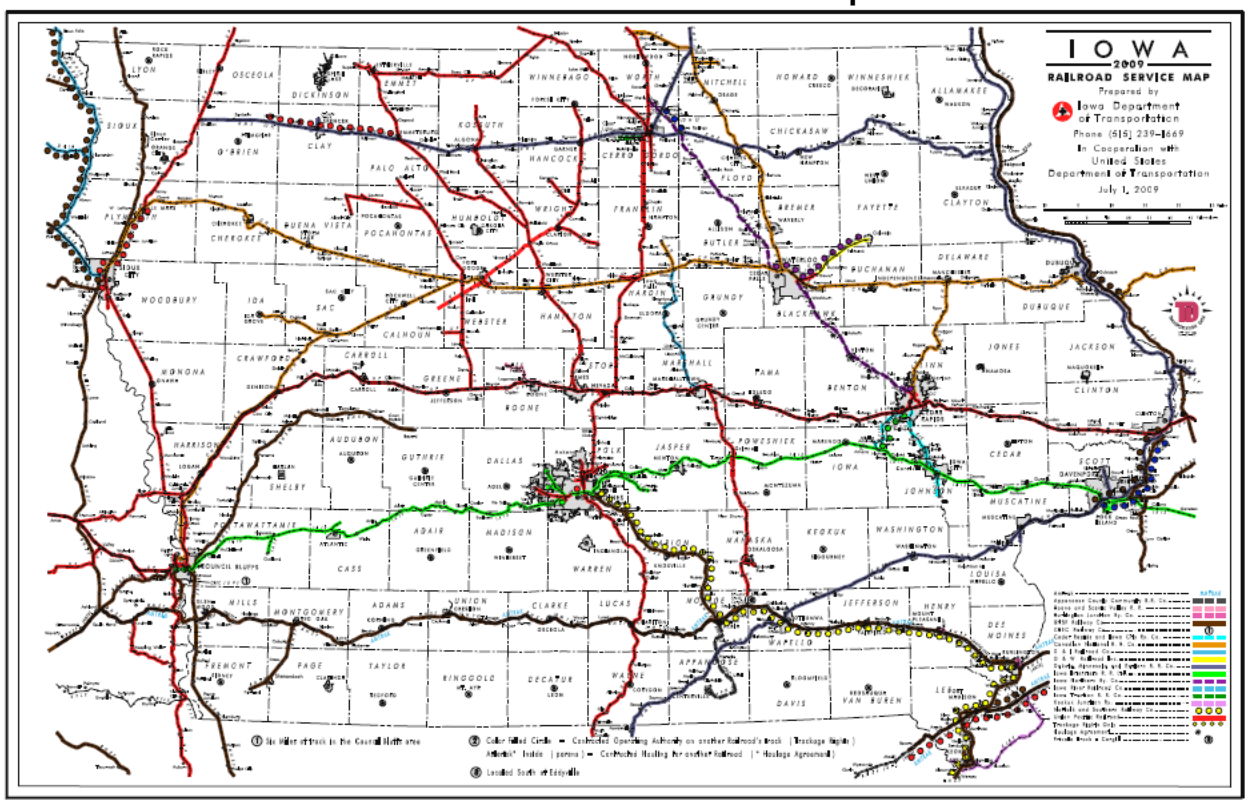
Appendix D. 2008 Iowa railroad profiles

Iowa is served by 19 railroad companies that operate a total of 3,947 miles of track within the state. Five of these railroads are Class I railroads, operating throughout the United States. These railroads operate approximately 66 percent of Iowa's total route miles.

Of the remaining 14 railroads, three are Class II and 11 are Class III. The Class II railroads account for nearly 25 percent of the total route miles, Class III have just more than 8 percent.

The following pages provide information for each railroad operating in Iowa. The map on the next page shows the current (July 2009) railroad network in Iowa.

2009 Iowa Railroad Service Map



Appanoose County Community Railroad Inc. (APNC) - 2008
The APNC was formed in 1983 by the town of Centerville, utilizing abandoned sections of the Burlington Northern, Rock Island and Norfolk Southern railroads. The railroad is a nonprofit railroad headquartered in Centerville.

The APNC operates 35 miles from Centerville to Albia. The line connects with the BNSF and Norfolk Southern Railway (NS) at Albia, and Dakota, Minnesota & Eastern Railroad (DME, formerly the Iowa, Chicago & Eastern Railroad) at Moravia. Current employment totals six people, all located in Iowa.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	APNC		
FRA classification	Class III		
Type of service	Switching		
States operated in	1		
Miles operated	35	35	100
Operating revenues (millions)	$0.2	$0.2	100
Operating expenses (millions)	$0.7	$0.7	100
Net ton-miles (millions)	0.04	0.04	100
Cars received and forwarded	138	138	100
Rehabilitation expenses (millions)	$0.00	$0.00	100
Track maintenance expenses (millions)	$0.03	$0.03	100
Freight cars in service	NA	NA	NA
Locomotives in service	2	2	100
Fuel used in gallons	10,207	10,207	100
Employment	6	6	100

NA = Not available

BNSF Railway Co. (BNSF) - 2008
BNSF began operating in Iowa Sept. 22, 1995, following the merger of the Burlington Northern and Atchison, Topeka and Santa Fe railroads. BNSF is owned by its holding company Burlington Northern Santa Fe Corp., which is headquartered in Fort Worth, Texas.

BNSF is among the largest railroads in the United States today with operating mileage totaling nearly 32,200 miles covering 28 states and two Canadian provinces. BNSF covers the western two-thirds of the United States from major Pacific Northwest and California ports to the Midwest, Southeast and Southwest; and from Canada to Mexico. The railroad operates 673 miles of track in Iowa, which runs from Burlington to Glenwood in southern Iowa (Amtrak also operates on this stretch under trackage rights) and northward from Sioux City in northwest Iowa. BNSF also operates several branch lines that stem off its main line, including a line from Des Moines to Albia. The railroad employs nearly 40,000 people.

The main products handled by the BNSF in Iowa include coal, food products, grain, chemicals, and fertilizers.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	BNSF		
FRA classification	Class I		
Type of service	Line-haul		
States operated in	28		
Miles operated	32,166	673	2.1
Operating revenues (millions)	$18,132.4	$424.1	2.3
Operating expenses (millions)	$14,308.9	NA	NA
Net ton-miles (millions)	670,381.5	21,717.4	3.2
Tons hauled (millions)	620.2	155.2	25.0
Rehabilitation expenses (millions)	$2,078.9	NA	NA
Track maintenance expenses (millions)	$1,937.6	NA	NA
Freight cars in service	82,319	NA	NA
Locomotives in service	6,510	NA	NA
Fuel used in gallons	1,415,015,000	NA	NA
Employment	39,639	NA	NA

NA = Not available

Boone & Scenic Valley Railroad (BSV) - 2008
BSV is a nonprofit operating museum located in Boone. In 1983, BSV purchased 12 miles of track that was scheduled for abandonment from the Chicago and North Western. A nonprofit historical society was established and began passenger service later that year. Since 1983, BSV has operated a passenger excursion train over the 12 miles of track from Boone to Wolf. In February 2001, BSV obtained an additional 1.66 miles of right of way from downtown Boone eastward to the Boone Industrial Park from the UP to serve the industries located in the park.

Freight service is only provided on the 1.66 miles to the Boone Industrial Park. Current employment totals six people, all located in Iowa.

The main commodity handled by the BSV is empty containers.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	BSV		
FRA classification	Class III		
Type of service	Switching		
States operated in	1		
Miles operated	1.66	1.66	100
Operating revenues (millions)	$0.020	$0.020	100
Operating expenses (millions)	$0.002	$0.002	100
Net ton-miles (millions)	0.0	0.0	100
Tons hauled (millions)	0.0	0.0	100
Rehabilitation expenses (millions)	$0.0	$0.0	100
Track maintenance expenses (millions)	$0.0	$0.0	100
Freight cars in service	NA	NA	NA
Locomotives in service	0	0	100
Fuel used in gallons	280	280	100
Employment	6	6	100

NA = Not available

Burlington Junction Railway (BJRY) - 2008
BJRY was formed in 1985 to operate the former Chicago, Rock Island & Pacific Railroad track in Burlington in southeastern Iowa. In 1996, the BJRY began switching operations in Mount Pleasant. In 2003, BJRY leased two line segments near Quincy, Ill., from the BNSF and began operations. The railroad is headquartered in Burlington.

Currently, BJRY provides switching operations in Iowa at Burlington, West Burlington, Mount Pleasant, and Ottumwa; and Illinois at Quincy, Rochelle and Montgomery connecting to the BNSF. The railroad operates a total of 22 miles of which 4.5 miles are located in Iowa. BJRY employs a total of 22 people of which six are located in Iowa.

Major commodities handled by BJRY include lumber, wallboard, flour, salt, fertilizer, grain, paper rolls, plastic pellets, and miscellaneous products.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	BJRY		
FRA classification	Class III		
Type of service	Switching		
States operated in	2		
Miles operated	22.0	4.5	20.5
Operating revenues (millions)	$4.3	$1.8	41.9
Operating expenses (millions)	$3.7	NA	NA
Net ton-miles (millions)	NA	NA	NA
Cars received and forwarded	NA	3,325	NA
Rehabilitation expenses (millions)	$0.34	$0.09	17.6
Track maintenance expenses (millions)	$0.02	$0.01	50.0
Freight cars in service	NA	NA	NA
Locomotives in service	10	NA	NA
Fuel used in gallons	38,456	NA	NA
Employment	22	6	27.3

NA = Not available

CBEC Railway Inc. (CBEC) - 2008
CBEC was formed in 1992 by MidAmerican Energy Co. in Council Bluffs. CBEC is a wholly-owned subsidiary of MidAmerican, and is headquartered in Des Moines.

CBEC owns 6 miles of track in the Council Bluffs area, which were installed in 1997. The track is primarily used by BNSF and UP to haul coal to the utility plant located south of Council Bluffs. Administrative services are provided by MidAmerican Energy.

The main product handled by the CBEC is coal.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	CBEC		
FRA classification	Class III		
Type of service	Switching		
States operated in	1		
Miles operated	6	6	100
Operating revenues (millions)	$3.6	$3.6	100
Operating expenses (millions)	$0.9	$0.9	100
Net ton-miles (millions)	42.1	42.1	100
Tons hauled (millions)	7.2	7.2	100
Rehabilitation expenses (millions)	$0	$0	--
Track maintenance expenses (millions)	$0.3	$0.3	100
Freight cars in service	0	0	--
Locomotives in service	0	0	--
Fuel used in gallons	0	0	--
Employment	0	0	--

Cedar Rapids and Iowa City Railway Co. (CIC) - 2008
CIC (also known as the CRANDIC) began operations in 1904. The railroad operated as a passenger line until 1953. CIC is a wholly-owned subsidiary of Alliant Energy Transportation, and is headquartered in Cedar Rapids.

The railroad operates 60 miles of track in eastern Iowa. CIC's main line runs from Cedar Rapids to Iowa City. In 1981, the railroad expanded by purchasing 23 miles of the Milwaukee Road from Cedar Rapids to Homestead. It also purchased the Iowa City to Hills line from the Chicago, Rock Island & Pacific Railroad in 1982. CIC also provides switching operations in Cedar Rapids. The railroad interchanges traffic with the Chicago, Central and Pacific Railroad (CC), Iowa Northern Railway and UP in Cedar Rapids. The railroad interchanges with the IAIS in Homestead and Iowa City. The railroad employs 78 people, all located in Iowa.

The main products handled by the CIC include food products, coal, grain, and paper.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	CIC		
FRA classification	Class III		
Type of service	Line-haul		
States operated in	1		
Miles operated	60	60	100
Operating revenues (millions)	$24.4	$24.4	100
Operating expenses (millions)	$16.0	$16.0	100
Net ton-miles (millions)	4.4	4.4	100
Tons hauled (millions)	3.6	3.6	100
Cars received and forwarded	26,783	26,783	100
Rehabilitation expenses (millions)	$5.9	$5.9	100
Track maintenance expenses (millions)	$0.9	$0.9	100
Freight cars in service	400	400	100
Locomotives in service	9	9	100
Fuel used in gallons	301,106	301,106	100
Employment	78	78	100

Cedar River Railroad Co. (CEDR) - 2008
CEDR was established in 1991 with acquisition of the Cedar Valley Railroad. Cedar Valley was formed in 1984 with the purchase of track from the Chicago, Rock Island & Pacific Railroad. CEDR is a subsidiary of the Chicago Central and Pacific Railroad (CC). CC is part of CN as a result of a merger with the Illinois Central Railroad.

CEDR operates 103 miles of track from Waterloo to Glenville, Minn., approximately, 83 miles are located in Iowa, including a branch line to Stacyville. The railroad interchanges traffic with the CC at Waterloo, as well as with the DM&E in Charles City and Lyle, Minn., and with the DM&E and the UP in Glenville, Minn. CEDR does not directly employ any people; the employees are part of the CC.

The main products handled by the CEDR include grain, food products and chemicals.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	CEDR		
FRA classification	Class III		
Type of service	Line-haul		
States operated in	2		
Miles operated	103	83	80.6
Operating revenues (millions)	$5.8	$5.4	93.1
Operating expenses (millions)	$5.2	NA	NA
Net ton-miles (millions)	57.9	53.3	92.1
Tons hauled (millions)	0.9	0.7	77.8
Rehabilitation expenses (millions)	$2.0	$2.0	100.0
Track maintenance expenses (millions)	$0.10	$0.08	80.0
Freight cars in service	NA	NA	NA
Locomotives in service	0	NA	NA
Fuel used in gallons	93,526	NA	NA
Employment	NA	NA	NA

NA = Not available

Chicago, Central and Pacific Railroad Co. (CC) - 2008
The CC was formed in December 1985 as a spin-off from the Illinois Central Gulf Railroad. In June 1996, the Illinois Central Railroad repurchased the CC. Currently, the CC is a subsidiary of the CN system, which resulted from the CN and Illinois Central Railroad merger July 1, 1999.

CC operates 732 miles of track in Iowa, Illinois and Nebraska, with 558 miles located in Iowa. The line in Iowa extends from Dubuque through Fort Dodge to Council Bluffs. The railroad also operates a line from Fort Dodge to Sioux City, along with several branches. CC currently employs 240 people system-wide, with 203 people located in Iowa.

The main products handled by the railroad include coal, farm products, food products, and chemicals/fertilizers.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	CC		
FRA classification	Class II		
Type of service	Line-haul		
States operated in	3		
Miles operated	732	558	76.2
Operating revenues (millions)	$115.6	$70.1	60.6
Operating expenses (millions)	$64.3	NA	NA
Net ton-miles (millions)	3,055.5	1,861.0	60.9
Tons hauled (millions)	10.0	8.6	86.0
Rehabilitation expenses (millions)	$17.0	$11.9	70.0
Track maintenance expenses (millions)	$2.4	$1.8	75.0
Freight cars in service	NA	NA	NA
Locomotives in service	0	NA	NA
Fuel used in gallons	5,017,188	NA	NA
Employment	240	203	84.6

NA = Not available

D & I Railroad Co. (DAIR) - 2008
DAIR was incorporated in 1981 to operate part of the Milwaukee Road purchased by South Dakota in northwest Iowa. The railroad is owned by L.G. Everist Inc., a construction company, and is headquartered in Sioux Falls, S.D.

DAIR operates on 266 miles of track that is owned by South Dakota from Sioux City to Dell Rapids, S.D., and from Hawarden to Bereford, S.D. DAIR also has trackage rights from Canton, S.D., to Wolsey, S.D. About 39 miles are located in Iowa. The railroad shares trackage rights with the BNSF. DAIR connects with the BNSF, CC and the UP in Sioux City. In Sioux Falls, the railroad connects with the BNSF and DM &E in Wolsey, S.D. The railroad employs 10 people, none located in Iowa.

The main products handled by DAIR include nonmetallic metals, stone products, food products, and grain.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	DAIR		
FRA classification	Class III		
Type of service	Line-haul		
States operated in	2		
Miles operated	266	39	14.7
Operating revenues (millions)	$5.2	$1.8	34.6
Operating expenses (millions)	$4.3	NA	NA
Net ton-miles (millions)	119.6	40.7	34.0
Tons hauled (millions)	1.5	0.8	53.3
Rehabilitation expenses (millions)	$0	$0	--
Track maintenance expenses (millions)	$0	$0	--
Freight cars in service	NA	NA	NA
Locomotives in service	25	NA	NA
Fuel used in gallons	300,508	NA	NA
Employment	10	0	0.0

NA = Not available

D & W Railroad, LLC (DWRV) - 2008
With an agreement dated December 2005, Transco Railway Products and Hawkeye Renewables formed the DWRV. Transco transferred the existing assets of the DWRV, which was formed in 2002 by Transco to acquire the rail line from Dewar to Oelwein from the UP in lieu of abandonment. Their headquarters are located in Fairbank, Iowa.

DWRV owns 19 miles of track. The railroad has contracted with the Iowa Northern Railway to maintain the line and provide service to shippers.

The main products handled on the line include grain, ethanol, feed, and rail cars to be repaired or rebuilt.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	DMRV		
FRA classification	Class III		
Type of service	Contracts with IANR to provide service.		
States operated in	1		
Miles operated	19	19	100
Operating revenues (millions)	$0.0	$0.0	--
Operating expenses (millions)	$0.0	$0.0	--
Net ton-miles (millions)	*	*	
Tons hauled (millions)	*	*	
Rehabilitation expenses (millions)	$0.0	$0.0	--
Track maintenance expenses (millions)	$0.04	$0.04	100
Freight cars in service	NA	NA	NA
Locomotives in service	0	0	--
Fuel used in gallons	0	0	--
Employment	0	0	--

* Information reported by the Iowa Northern Railway.
NA = Not available

Dakota, Minnesota & Eastern Railroad Corp. (DME)
DME was formed in 1986, taking over lines owned by the Chicago and North Western located in South Dakota and Minnesota. The railroad is based in Sioux Falls, S.D. In 2002, DME formed the ICE, which took over the operations of the I & M Rail Link (IMRL). On Oct. 30, 2008, the Canadian Pacific Railroad (CP) acquired the DME and ICE through its U.S. subsidiary, the Soo Line Railroad Co. To simplify the corporate structure of CP's holdings in the United States, ICE has been merged into the DME, and ICE no longer exists. Currently, DME plans to build 262 miles and rebuild 650 miles of track, allowing the railroad access to coal located in the Powder River Basin in Wyoming.

The combined DME operates more than 2,500 miles of track running from Rapid City, S.D., to Winona, Minn. (located on the Mississippi River); and Minneapolis to Chicago and Kansas City, paralleling the Mississippi River through Iowa. The railroad has access to all major railroads at gateways in Chicago, Kansas City and St. Paul.

See ICE for Iowa information.

Iowa, Chicago & Eastern Railroad Corp. (ICE) — 2008
ICE purchased the assets of the former IMRL and began operation July 31, 2002. ICE is a railroad formed by DME. Both ICE and DME are under the common management of Cedar American Rail Holdings Inc. that is headquartered in Sioux Falls, S.D. On Oct. 30, 2008, the Canadian Pacific Railroad (CP) acquired DME and ICE through its U.S. subsidiary, the Soo Line Railroad Co. To simplify the corporate structure of CP's holdings in the United States, ICE was merged into DME.

ICE operates 1,412 miles of track from Minneapolis to Chicago and Kansas City, paralleling the Mississippi River through Iowa. The railroad also operates a line across northern Iowa and one across southern Minnesota. Iowa operations consist of 660 miles. The railroad has access to all major railroads at gateways in Chicago, Kansas City and St. Paul. Current employment totals 1,002, with 312 located in Iowa.

The main products handled by ICE include coal, farm products, food products, chemicals, waste products, primary metal products, nonmetallic metals, and stone.

2008 information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	ICE		
FRA classification	Class II		
Type of service	Line-haul		
States operated in	5		
Miles operated	1,412	660	46.7
Operating revenues (millions)	$232.5	$141.0	60.6
Operating expenses (millions)	$154.8	NA	NA
Net ton-miles (millions)	7,504.9	4,552.5	60.7
Tons hauled (millions)	21.2	18.7	88.2
Rehabilitation expenses (millions)	$35.4	$24.0	67.8
Track maintenance expenses (millions)	$13.9	$6.4	46.0
Freight cars in service	NA	NA	NA
Locomotives in service	98	NA	NA
Fuel used in gallons	12,161,372	NA	NA
Employment	1,002	312	31.1

NA = Not available

Iowa Interstate Railroad, Ltd. (IAIS) - 2008
IAIS was founded in 1984 to operate the former Chicago, Rock Island & Pacific Railroad line between Chicago and Omaha. IAIS is a subsidiary of Railroad Development Corp. (RDC), which acquired both the railroad and property from Heartland Rail Corp. in December 2003. Effective July 1, 2006, IAIS purchased OmniTRAX's Great Western Railway of Iowa consisting of 30 miles of yard and industry tracks in Council Bluffs. RDC is headquartered in Pittsburgh, Pa., and operates several overseas railroads. IAIS is headquartered in Cedar Rapids.

The railroad operates 597 miles of track from Chicago to Omaha through the Quad Cities, Iowa City and Des Moines, as well as several branch lines. Intermodal service is provided at Chicago, and Council Bluffs. IAIS operations in Iowa include 361 miles. Employees of the railroad total 194 with 128 located in Iowa.

The main products handled by the IAIS in Iowa include farm products, food products, waste and scrap products, lumber, and chemicals/fertilizers.

2008 information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	IAIS		
FRA classification	Class II		
Type of service	Line-haul		
States operated in	2		
Miles operated	597	361	60.5
Operating revenues (millions)	$70.8	$39.9	56.4
Operating expenses (millions)	$56.5	NA	NA
Net ton-miles (millions)	1,376.9	775.9	56.4
Tons hauled (millions)	9.4	8.1	86.2
Rehabilitation expenses (millions)	$10.8	$8.6	79.6
Track maintenance expenses (millions)	$5.1	$3.8	74.5
Freight cars in service	NA	NA	NA
Locomotives in service	45	NA	NA
Fuel used in gallons	4,157,696	NA	NA
Employment	194	128	66.0

NA = Not available

Iowa Northern Railway Co. (IANR) - 2008
IANR was incorporated in 1984 and is one of the first short-line railroads in the state. IANR was formed from the bankrupt Chicago, Rock Island & Pacific Railroad. The railroad is headquartered in Greene. The railroad was originally owned by a group of grain elevators located along the line. The line was sold in 1994 to its current owners.

IANR operates 169 miles in Iowa between Cedar Rapids and Manly in north central Iowa, including the line (18.8 miles) between Dewar and Oelwein under an operating agreement with DWRV. The railroad connects with CIC in Cedar Rapids; CC in Cedar Rapids and Waterloo; DME in Nora Springs and Plymouth Junction.; UP in Cedar Rapids and Manly; and DME in Manly. The railroad employs 83 people, all located in Iowa.

The main products handled by the IANR include grain, chemicals/fertilizers, food products, stone, ethanol, and machinery.

2008 Information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	IANR		
FRA classification	Class III		
Type of service	Line-haul		
States operated in	1		
Miles operated	169	169	100
Operating revenues (millions)	$16.6	$16.6	100
Operating expenses (millions)	$15.1	$15.1	100
Net ton-miles (millions)	164.5	164.5	100
Tons hauled (millions)	3.2	3.2	100
Rehabilitation expenses (millions)	$2.3	$2.3	100
Track maintenance expenses (millions)	$1.2	$1.2	100
Freight cars in service	500	500	100
Locomotives in service	21	21	100
Fuel used in gallons	973,414	973,414	100
Employment	83	83	100

Iowa River Railroad Inc. (IARR) - 2008
IARR was formed in 2006 when the railroad purchased UP's line from Marshalltown to Steamboat Rock. The railroad also acquired the rail-banked (dormant) portion of track from Steamboat Rock to Ackley from the North Central Railway Association (shippers on the formerly operational line). The railroad is headquartered in Steamboat Rock.

IARR operates 43 miles in Iowa between Marshalltown and Ackley in central Iowa. The railroad connects with UP in Marshalltown and CC (owned by CN) at Ackley. The railroad employs three people, all located in Iowa.

The main products handled by the IARR include ethanol, grain and chemicals/fertilizers.

2008 information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	IARR		
FRA classification	Class III		
Type of service	Line-haul		
States operated in	1		
Miles operated	43	43	100
Operating revenues (millions)	$0.43	$0.43	100
Operating expenses (millions)	$0.86	$0.86	100
Net ton-miles (millions)	0.18	0.18	100
Tons Hauled (millions)	0.18	0.18	100
Rehabilitation expenses (millions)	$0.0	$0.0	100
Track maintenance expenses (millions)	$0.16	$0.16	100
Freight cars in service	NA	NA	100
Locomotives in service	1	1	100
Fuel used in gallons	15,729	15,729	100
Employment	3	3	100

NA = Not available

Iowa Traction Railroad Co. (IATR) -2008
IATR was incorporated in 1986 and is privately owned. IATR is the last freight-hauling 600-volt DC-electric railroad in the country. The line was previously known as the Iowa Terminal Railroad, and it is headquartered in Mason City.

IATR operates 13 miles between Clear Lake and Mason City in northern Iowa. The railroad connects with ICE and UP in Mason City. IATR employs four people, all located in Iowa.

The main products handled by IATR include food products, and waste and scrap materials.

2008 information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	IATR		
FRA classification	Class III		
Type of service	Switching		
States operated in	1		
Miles operated	13	13	100
Operating revenues (millions)	$0.96	$0.96	100
Operating expenses (millions)	$0.84	$0.84	100
Net ton-miles (millions)	0.82	0.82	100
Tons hauled (millions)	0.33	0.33	100
Rehabilitation expenses (millions)	$0.0	$0.0	--
Track maintenance expenses (millions)	$0.50	$0.50	100
Freight cars in service	NA	NA	NA
Locomotives in service	5	5	100
Fuel used in gallons	0	0	--
Employment	4	4	100

NA = Not available

Keokuk Junction Railway Co. (KJRY) - 2008
KJRY was incorporated in May 1980 to purchase the Chicago, Rock Island & Pacific Railroad yard track in Keokuk. In December 1986, the railroad expanded its operations by purchasing the line between Keokuk, Iowa, and La Harpe, Ill., from the Atchison, Topeka and Santa Fe Railway. In March 1996, KJRY was purchased by Pioneer Railcorp, which is a short-line railroad holding company operating 16 railroads in 10 states totaling more than 535 miles. Its headquarters are located in Peoria, Ill. The KJRY has a main office in Keokuk.

In December 2001, KJRY purchased 12 miles from La Harpe to Lomax, Ill., and acquired trackage rights to Fort Madison, Iowa. KJRY added 76 miles in February 2005, acquiring the line from La Harpe to Peoria, Ill. With these purchases, the railroad currently operates a total of 127 miles, with 1 mile located in Iowa, which serves as a switching carrier in Keokuk. KJRY interchanges with a number of railroads in Peoria, as well as BNSF in Keokuk and UP in Fort Madison.

The KJRY employs a total of 21 people, with 18 located in Iowa. The main products handled by the KJRY include grain, transportation equipment, food products, and waste products.

2008 information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	KJRY		
FRA classification	Class III		
Type of service	Line-haul		
States operated in	2		
Miles operated	127	1	0.8
Operating revenues (millions)	$5.7	$4.1	71.9
Operating expenses (millions)	$5.7	NA	NA
Net ton-miles (millions)	29.7	0.4	1.3
Tons hauled (millions)	0.8	0.4	50.0
Cars received and forwarded	4,903	NA	NA
Rehabilitation expenses (millions)	$1.04	$0.18	17.3
Track maintenance expenses (millions)	$0.45	$0.06	13.3
Freight cars in service	NA	NA	NA
Locomotives in service	11	NA	NA
Fuel used in gallons	212,248	NA	NA
Employment	21	18	85.7

NA = Not available

Norfolk Southern Railway Co. (NS) - 2008
NS was formed June 1, 1982, with the merging of the Norfolk and Western Railway and Southern Railway. In June 1997, NS and CSX Transportation filed a joint application to purchase the Conrail property. NS began operating about 7,200 miles of the former Conrail property June 1, 1999. NS is owned by Norfolk Southern Corp., which is based in Norfolk, Va.

The railroad operates 20,831 miles of track in 23 states in the Southeast and Midwest, as well as in Ontario, Canada. NS serves all major eastern ports. NS operates 44 miles of track in Iowa running from Des Moines to Burlington, most of which are trackage rights on the BNSF. The railroad employs more than 31,000 people systemwide.

The main products handled by NS in Iowa include grain and food products.

2008 information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	NS		
FRA classification	Class I		
Type of service	Line-haul		
States operated in	23		
Miles operated	20,831	44	0.21
Operating revenues (millions)	$10,661.3	$6.0	0.06
Operating expenses (millions)	$7,803.7	$4.4	0.06
Net ton-miles (millions)	195,616.4	108.1	0.01
Tons hauled (millions)	437.3	0.7	0.16
Rehabilitation expenses (millions)	$1,133.2	NA	NA
Track maintenance expenses (millions)	$1,350.5	$0.7	0.05
Freight cars in service	94,486	NA	NA
Locomotives in service	3,914	NA	NA
Fuel used in gallons	482,555,186	NA	NA
Employment	31,078	NA	NA

NA = Not available

Union Pacific Railroad Co. (UP) - 2008
UP was chartered in 1862 through an act of Congress. The railroad is comprised of the original Union Pacific, Missouri Pacific, Chicago and North Western, and Southern Pacific railroads. UP is a wholly owned subsidiary of the Union Pacific Corp., which is based in Omaha, Nebr.

UP is the largest railroad in the United States, operating 32,012 miles in 25 states in the western two-thirds of the United States. UP operation links major West Coast and Gulf ports with major gateways to the east including Chicago, St. Louis, Memphis, and New Orleans, and is a primary connection between the United States and Mexico. The railroad operates 1,435 miles in Iowa, including a main line from Clinton to Council Bluffs, and another north-south route through central Iowa, along with many branch lines. The railroad employs 48,951 people systemwide, with 2,042 located in Iowa.

The main products handled by UP in Iowa include grain, food products, coal, chemicals/fertilizers, and miscellaneous mixed shipments.

2008 information

Item	Systemwide	In Iowa	Percent in Iowa
Railroad abbreviation	UP		
FRA classification	Class I		
Type of service	Line-haul		
States operated in	25		
Miles operated	32,012	1,435	4.5
Operating revenues (millions)	$17,934.8	$997.3	5.6
Operating expenses (millions)	$14,075.0	$809.3	5.7
Net ton-miles (millions)	567,817.1	37,819.4	6.7
Tons hauled (millions)	611.3	152.8	25.0
Rehabilitation expenses (millions)	$2,653.9	NA	NA
Track maintenance expenses (millions)	$2,216.3	$129.0	5.8
Freight cars in service	90,005	NA	NA
Locomotives in service	8,448	NA	NA
Fuel used in gallons	1,240,874,008	NA	NA
Employment	48,951	2,042	4.2

NA = Not available

Appendix E. Performance measures for Iowa's railroad system

Having performance measures is important for determining whether goals are being met and assessing whether progress is being made. The following performance measures are intended to measure progress being made regarding railroad system safety, rail efficiency and impacts of railroad operations on the quality of life of the citizens of Iowa.

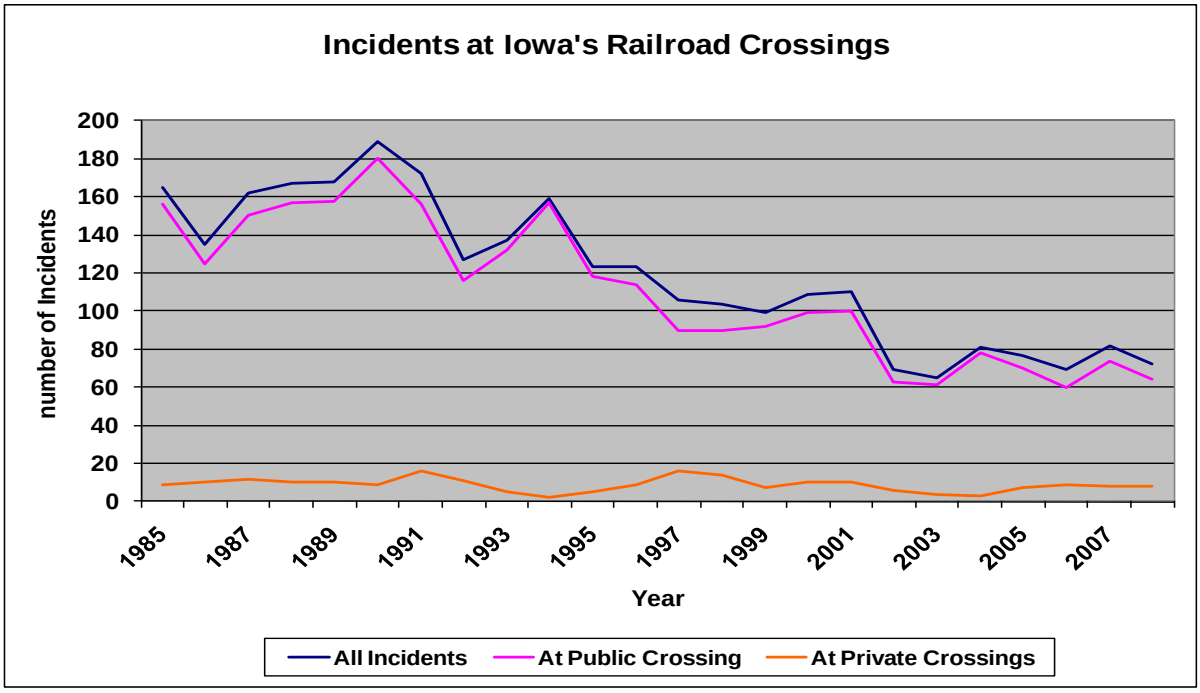
Freight performance measures

Total incidents at highway-railroad crossings (safety)

What this performance measure means. The total number of incidents at highway-rail crossings is a measure of safety calculated by summing all incidents that occur where roadways cross railroad tracks in Iowa.

Why this performance measure is important. The total number of incidents indicates the safety of the Iowa railroad crossings. With fewer incidents at these crossings, it is safer for trains to travel across the state and for motor vehicles to cross the railroad tracks.

Recent data and interpretation. The data shown in Figure 1 indicate a strong downward trend, which is desirable. One factor explaining this trend is that the number of grade crossings in Iowa has also been decreasing. In 1985, there were 165 incidents at highway crossings. Since then, this number has declined to 72, which is less than one-half of the total in 1985.



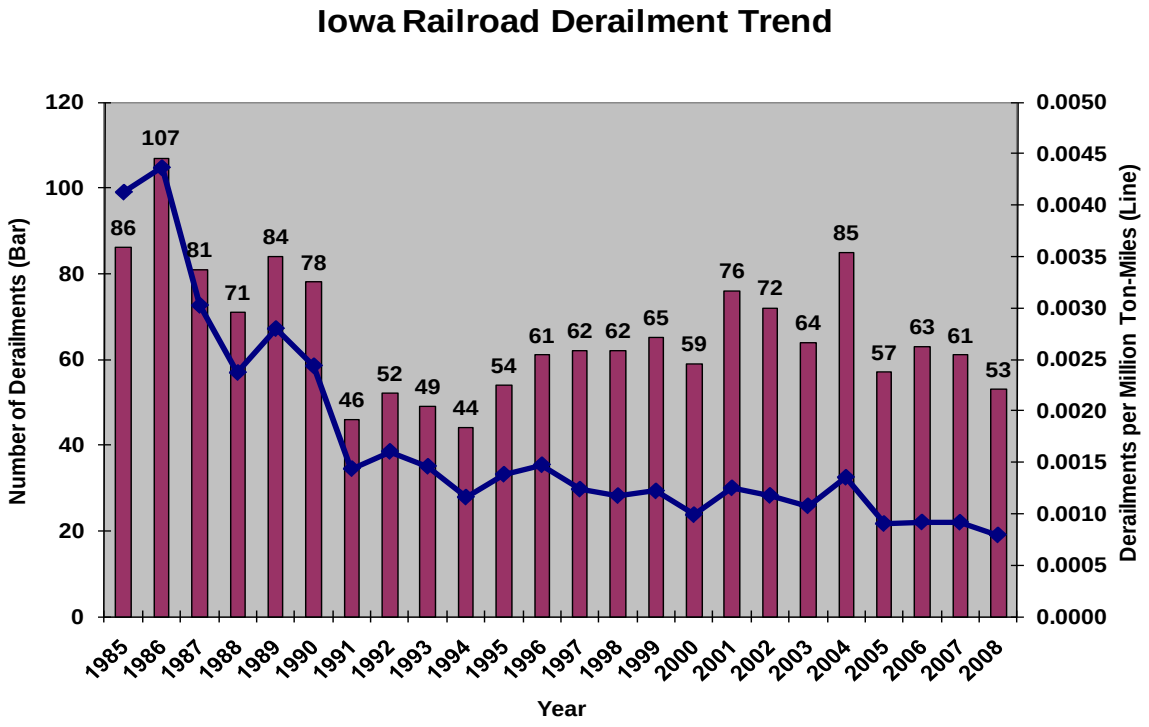
Source: FRA's Office of Safety Analysis

Railroad derailments per one million ton-miles (safety)

What this performance measure means. The number of train derailments per million ton-miles is a primary measure of the safety of Iowa railroad lines. This measure indicates the number of derailments in moving one ton of freight 1 million miles. A derailment is defined as one or more cars or locomotives leave the tracks for a reason other than a collision, explosion, or similar event. In 2008, Iowa's railroads moved nearly 67.1 billion ton-miles of freight across the state.

Why this performance measure is important. Derailments per million ton-miles are a measure of how safe it is to use Iowa railways. The lower this rate, the less likely it is to see a derailment in Iowa. A decrease in derailments not only means a safer railroad system in Iowa, but also a decrease in the cost of rail services.

Recent data and interpretation. Since 1985, the overall derailment rate has decreased drastically. Derailments per one million ton-miles have been cut by more than three-fourths since 1985, when it peaked at 0.004. Even in the last four years, this rate has decreased by approximately three-fourths, to under 0.001 per 1 million ton-miles. There were 33 fewer derailments in 2008 (53) than in 1985 (86), even though there was an increase of more than 9 billion ton-miles during that same time span. This performance measure, in conjunction with the crashes at highway-rail crossings, indicates a strong increase in safety performance.



Source: FRA's Office of Safety Analysis and railroads' annual reports

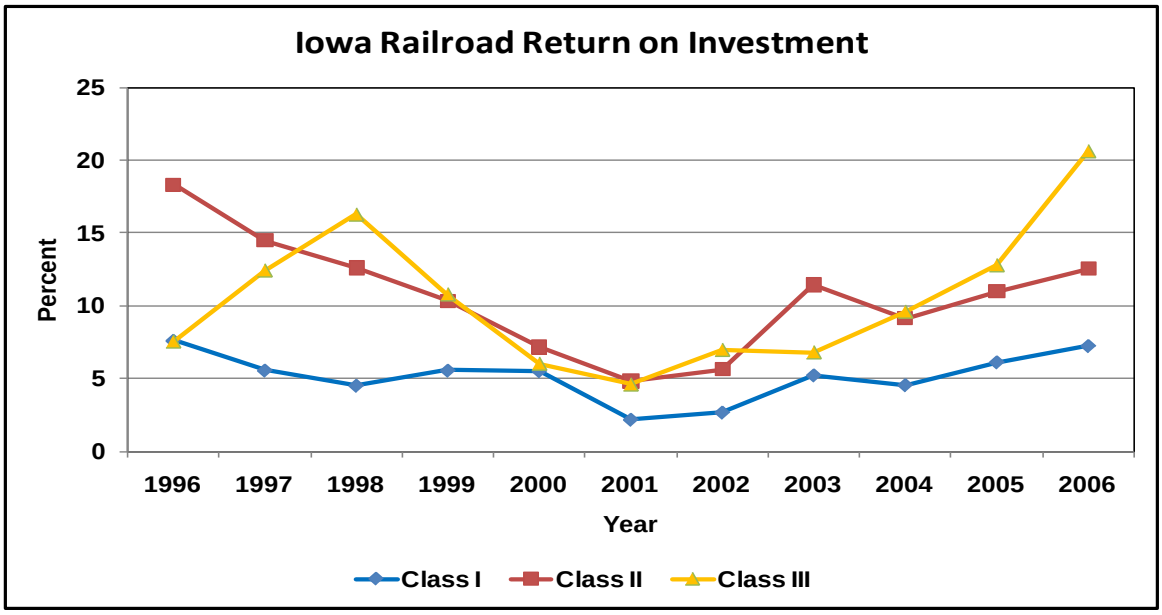
Railroad return on investment (efficiency)

What this performance measure means. The percentage of Iowa rail carriers earning a reasonable return on investment is a measure of efficiency. A higher return on investment means that for the money a railroad company puts into its business, the more it receives in profits. One measure of reasonable return on investment is whether the railroad company is meeting its cost of capital. This figure describes how much money (as a percentage) the company needs to make to maintain its physical capital.

Why this performance measure is important. The return on investment percentage of Iowa rail carriers measures the efficiency of those railroad companies that operate in Iowa. Railroad companies need to have a return on investment that is high enough to pay for upkeep of capital and investors to have returns on investments made. If a railroad cannot maintain a reasonable return, they may continue to shed some of their less profitable routes or in extreme cases go bankrupt.

Recent data and interpretation. Over the past decade, none of the Class I railroads have earned a return on investment of more than 10 percent. This indicates that these companies are not earning what would be considered a minimal reasonable return on their investments. This is not as big an issue as it may seem, as these railroads may be allocating more money into their important routes in Iowa and making up the difference in some other portion of their system. Overall, the average return on investment for the Class I railroads has been quite steady between 5 and 8 percent over the last 10 years.

The Class II and III railroads operating within the state show much more volatility because of their smaller sizes and revenues. Iowa routes account for a major percent of their trackage, if not their entire system. That mentioned; the variability of the return on investment for these railroads is obvious. In many cases, the return on investment for individual, smaller class railroads is negative because any system improvement will account for a much larger percent of their revenue as compared to the Class I railroads.



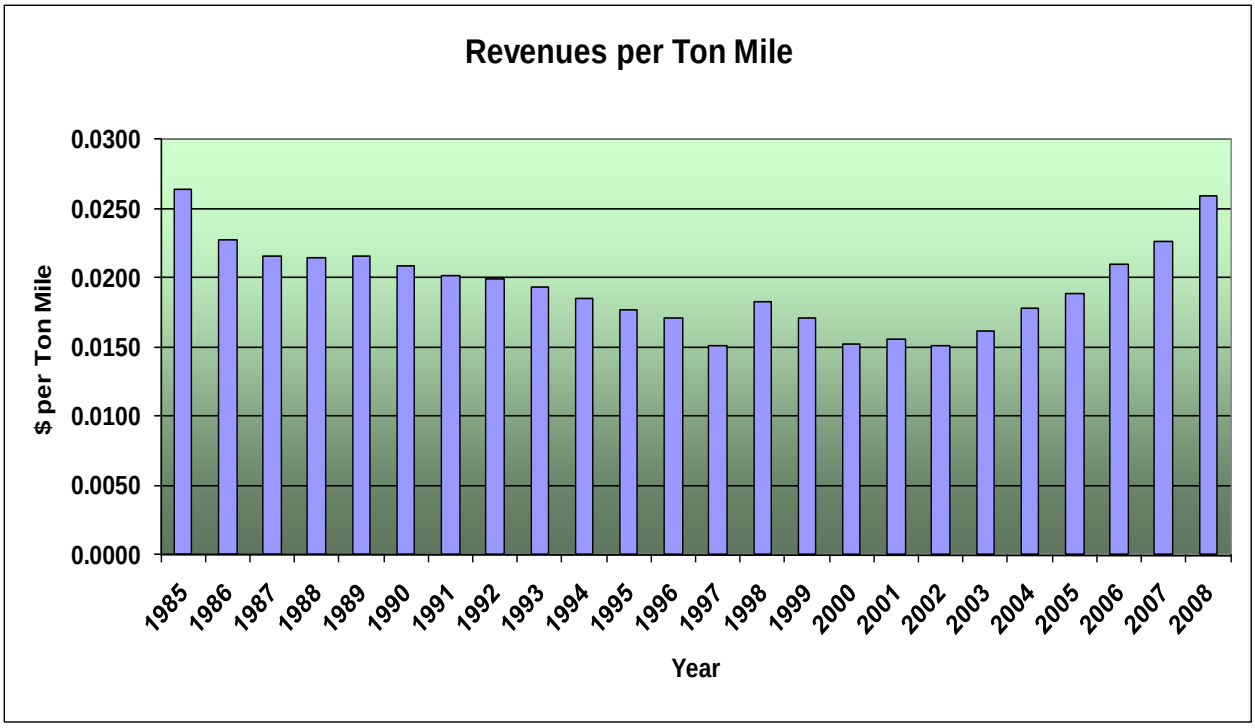
Source: Railroads' annual reports

Average rail revenue per ton-mile (efficiency)

What this performance measure means. Average rail revenue per ton-mile is a measure of efficiency that is calculated by dividing the total revenue by the number of ton-miles in Iowa. A ton-mile measures one ton of freight traveling one track-mile. Iowa had more than 67.1 billion ton-miles in 2008, showing a steady increase over the past two decades.

Why this performance measure is important. Average rail revenue per ton-mile is a measure of how efficient the railroad companies are that operate in Iowa. An increase in revenue per ton-mile would generally indicate a more efficient railroad system in Iowa. For the many railroad companies operating in Iowa, an increase in revenue per ton-mile would be necessary to achieve reasonable profits.

Recent data and interpretation. The overall trend since 1985 has been somewhat downward until 2000. Since then, the average rail revenue per ton-mile has risen 69 percent. The total revenue reached $1.74 billion moving 67.1 billion ton-miles in 2008. The downward trend from 1985 to 2000 is one factor in the poor returns on investment for most rail carriers in Iowa during that same period.



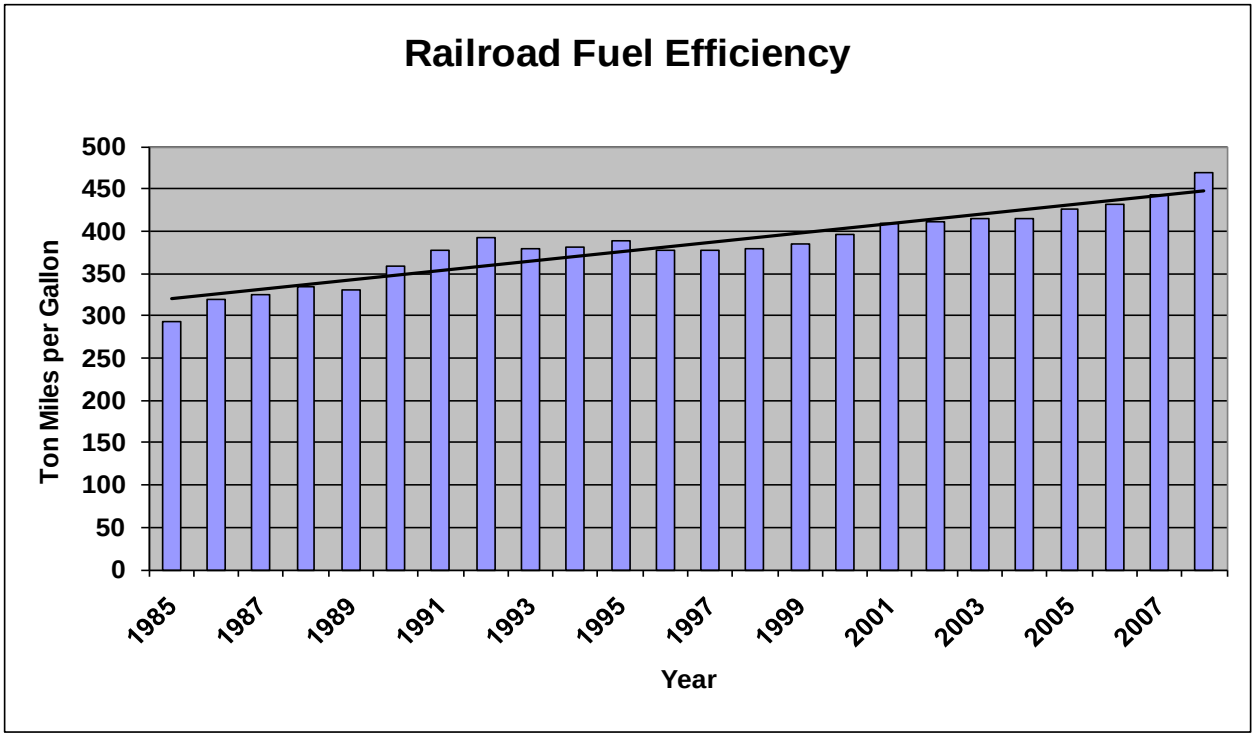
Source: Railroads' annual reports

Rail fuel use per ton-mile (efficiency)

What this performance measure means. Across Iowa in 2008, there were nearly 67.1 billion ton-miles of rail traffic. A ton-mile measures 1 ton of freight traveling 1 mile on railroad track. Rail fuel use per ton-mile, a measure of fuel efficiency, is the number of gallons of fuel it takes to move 1 ton of freight 1 mile.

Why this performance measure is important. Rail fuel use per ton-mile measures the efficiency of the railroad companies that operate in Iowa. With lower fuel consumption, operating costs and air pollution can decrease. Railroads are comparatively energy-efficient, but they can become even more efficient with targeted improvements.

Recent data and interpretation. In 1985, there were approximately 20.8 billion ton-miles in Iowa, which means ton-miles in Iowa have more than tripled since that time. Fuel consumption, however, has only doubled. The overall result is a fairly consistent downward trend in fuel use per ton-mile. Thus, Iowa railroads have become considerably more energy efficient over the past 23 years. Since 1985, railroads have increased their fuel efficiency by 175 ton-miles per gallon. A fleet of increasingly fuel-efficient of locomotives, especially in the Class I railroads, is undoubtedly a major factor in this trend. As railroads continue to upgrade their roster with newer, more efficient locomotives this trend should persist.



Source: Railroads' annual reports

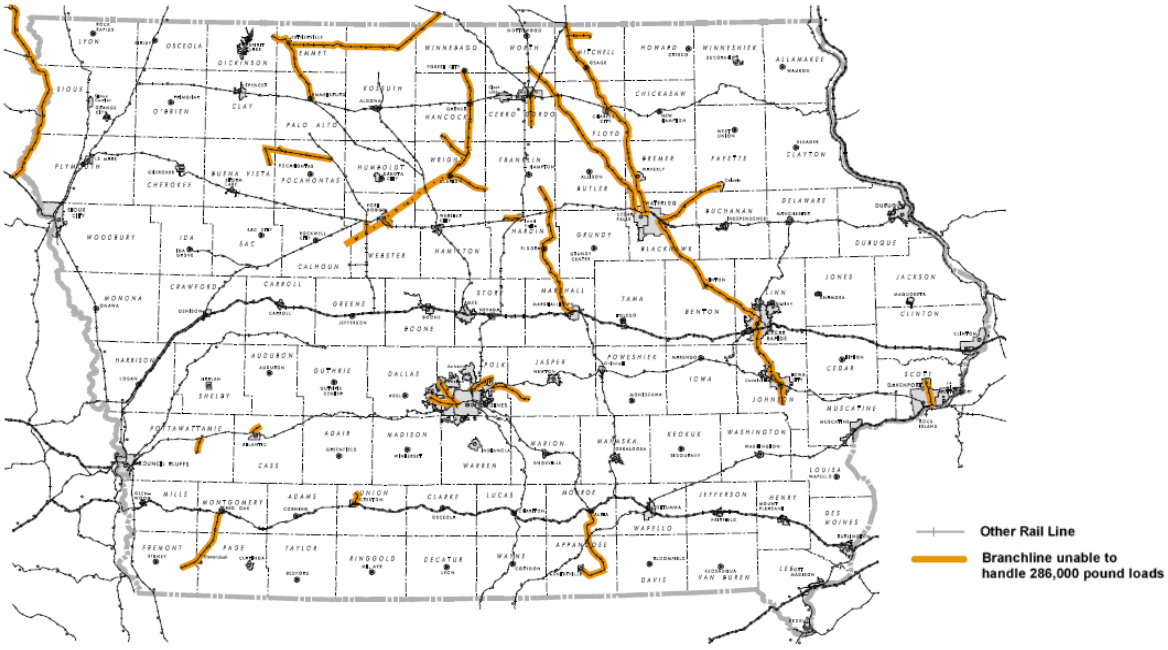
Percent of track-miles able to handle 286,000-pound cars (efficiency and quality of life)

What this performance measure means. The percent of track-miles able to handle 286,000-pound cars measures efficiency. This measure is calculated by comparing the track-miles that can carry this weight to those that cannot.

Why this performance measure is important. As the inventory of rolling stock becomes increasingly heavier, it is important that Iowa's railroad system be able to handle these cars. The industry standard for rail cars is 286,000 pounds (formerly it had been 263,000 pounds), and percent of track miles able to carry these cars is a measure of efficiency. Track unable to hold heavier loads require trains to either be split into multiple trains or train moved at a much slower speed. This affects the attractiveness of a community or rural area to development investments in agricultural or industrial businesses.

Recent data and interpretation. There are 3,947 track-miles in Iowa, of which 3,237 are able to carry 286,000-pound cars and 710 track-miles incapable of carrying that weight. Approximately 82 percent of Iowa's rails are able to carry cars of the critical weight, leaving 18 percent of the track-miles needing improvement.

Track-miles unable to handle 286,000-pound cars



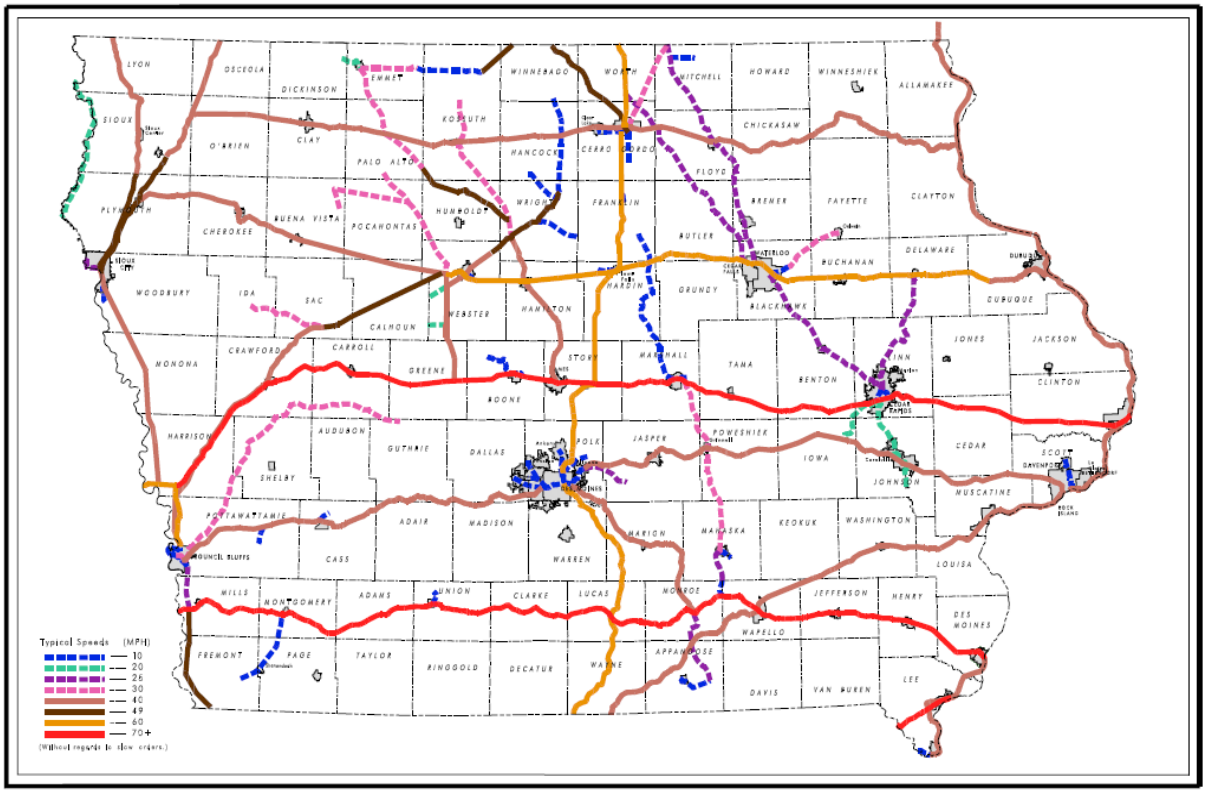
Percent of track-miles able to operate at least 40 mph (efficiency and quality of life)

What this performance measure means. The percentage of track-miles able to operate at 40 mph or more is a measure of speed for freight movement throughout Iowa. This measure compares track-miles that can operate at this speed.

Why this performance measure is important. The percentage of track-miles able to operate at 40 mph or more is another measure of the efficiency of railroads in Iowa. With an increase in speed, companies are able to send and receive freight faster and more efficiently. As the percentage of track-miles able to operate at this speed increases, freight movement around and across the state becomes faster and more efficient, allowing companies to spend less time with freight in transit. Slow track speeds usually indicate potential safety problems or tracks blocked by vehicular and pedestrian traffic, thus negatively impacting the local quality of life.

Recent data and interpretation. There are currently 3,947 track miles in Iowa. Of these, 2,756 (70 percent) can operate at 40 mph or more, which leaves 1,191 miles (30 percent) operating at less than 40 mph. The track miles owned by Class III rail companies operate at 30 mph or less. Most of the track operating at 40 mph or more is owned by Class I rail companies.

Railroad track speeds in Iowa



Passenger performance measures

Total accident/incidents relating to rail passenger service in Iowa (safety)

What this performance measure means. The total number of train accidents and highway-rail incidents at highway-rail crossings is a measure of safety calculated by summing all accidents/incidents relating to rail passenger operations in Iowa.

Why this performance measure is important. The total number of accidents/incidents indicates the safety of the Iowa train operations and crossings located along the rail lines that have passenger service. With fewer accidents/incidents, it is safer for trains to travel across the state and for motor vehicles to cross the railroad tracks. A decrease in the number of accidents/incidents not only means a safer rail passenger system in Iowa, but also a decrease in the cost of rail passenger services.

Recent data and interpretation. Since 1986, the overall number of accidents/ incidents has fluctuated between zero and two per year. The number of train accidents averaged 0.4 per year, while crossing incidents averaged 0.7 per year. During this time period, rail passenger service has remained the same, while the track structure and traffic control have improved. This performance measure indicates a strong safety performance.

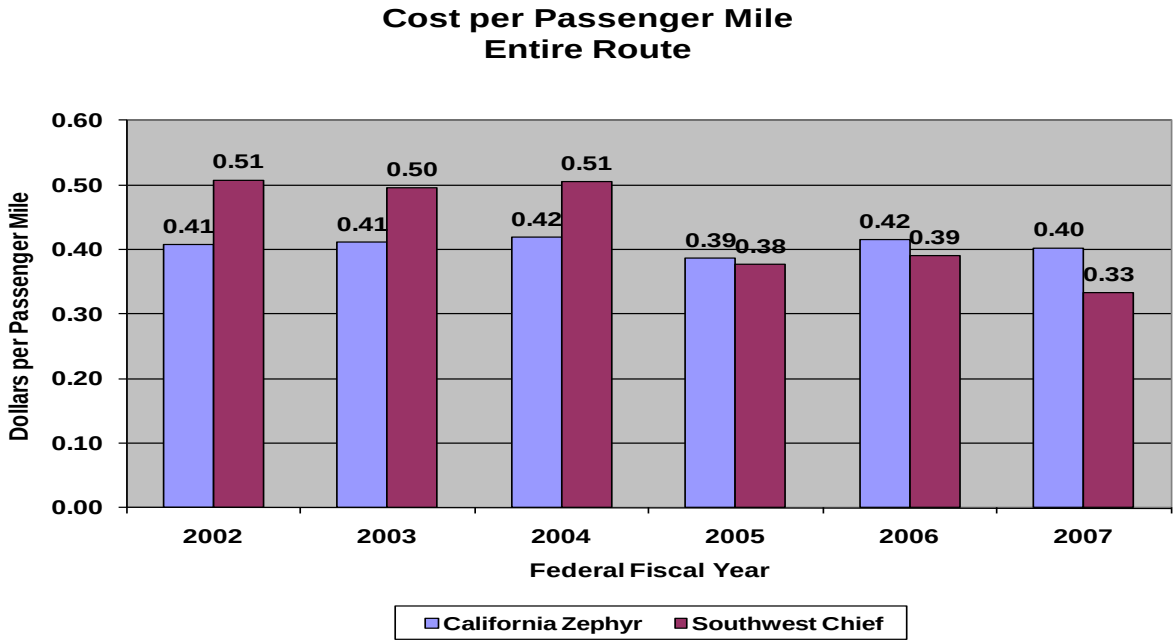
Source: FRA's Office of Safety Analysis

Cost per passenger-mile (efficiency)

What this performance measure means. Average rail cost per passenger-mile is a measure of efficiency, which is calculated by dividing the total cost by the number of passenger miles for the specific rail passenger route.

Why this performance measure is important. Average rail cost per passenger-mile is a measure of how efficient the passenger rail routes are that serve Iowa. Maintaining or decreasing the cost per passenger mile would generally indicate a more efficient rail passenger system serving Iowa.

Recent data and interpretation. The cost per passenger-mile on the entire California Zephyr route has remained the same since 2002 (approximately 40 cents). Cost per passenger mile on the entire Southwest Chief route has decreased by 35 percent since 2004 from 51 to 33 cents.



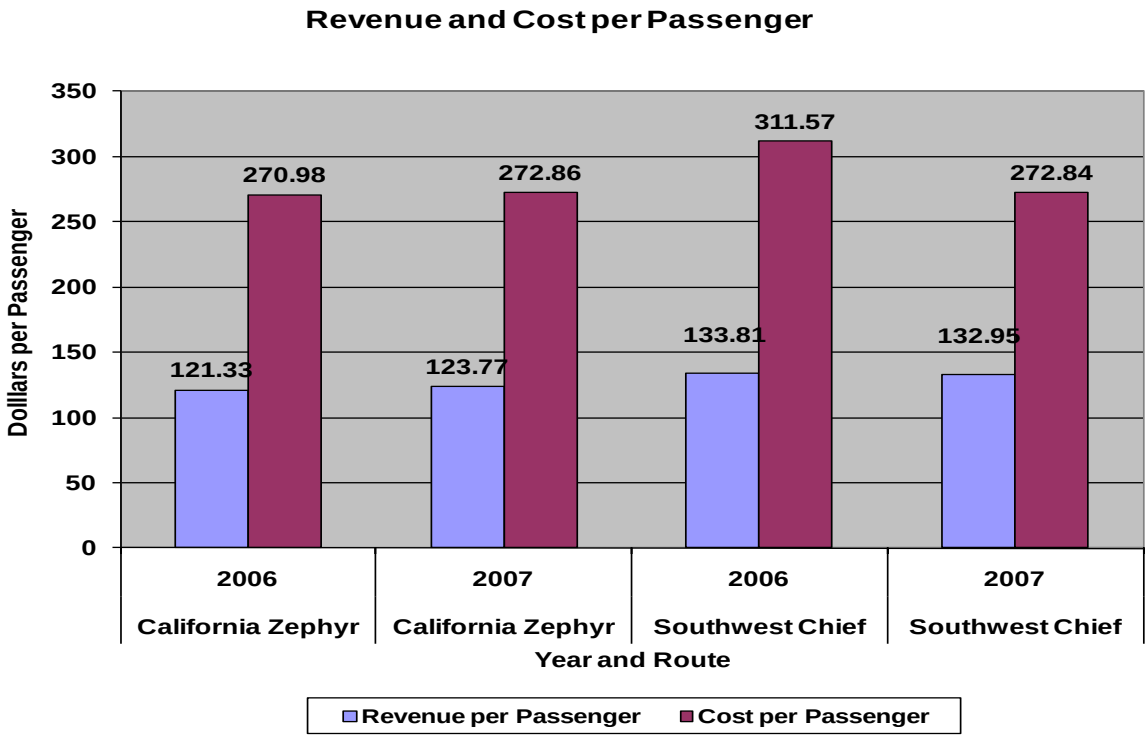
Source: Amtrak

Rail passenger revenue and cost per passenger (efficiency)

What this performance measure means. Average rail passenger revenue and cost per passenger is a measure of efficiency that is calculated by dividing the total revenue and cost by the number of passengers for the specific rail passenger route.

Why this performance measure is important. Average rail revenue per passenger compared to the average cost per passenger is a measure of how efficient the rail passenger routes are that serve Iowa. Narrowing this gap, either through an increase in revenue per passenger or a decrease in cost per passenger, would generally indicate a more efficient rail passenger system serving Iowa.

Recent data and interpretation. Both passenger routes serving Iowa narrowed the gap between revenues and costs from 2006 to 2007. During this period, there was a slight decrease of about 50 cents in the gap for the California Zephyr, while the Southwest Chief improved by nearly $40. Overall, there is a gap of nearly $150 per passenger that must come from other sources to cover the operating costs for these routes serving Iowa.



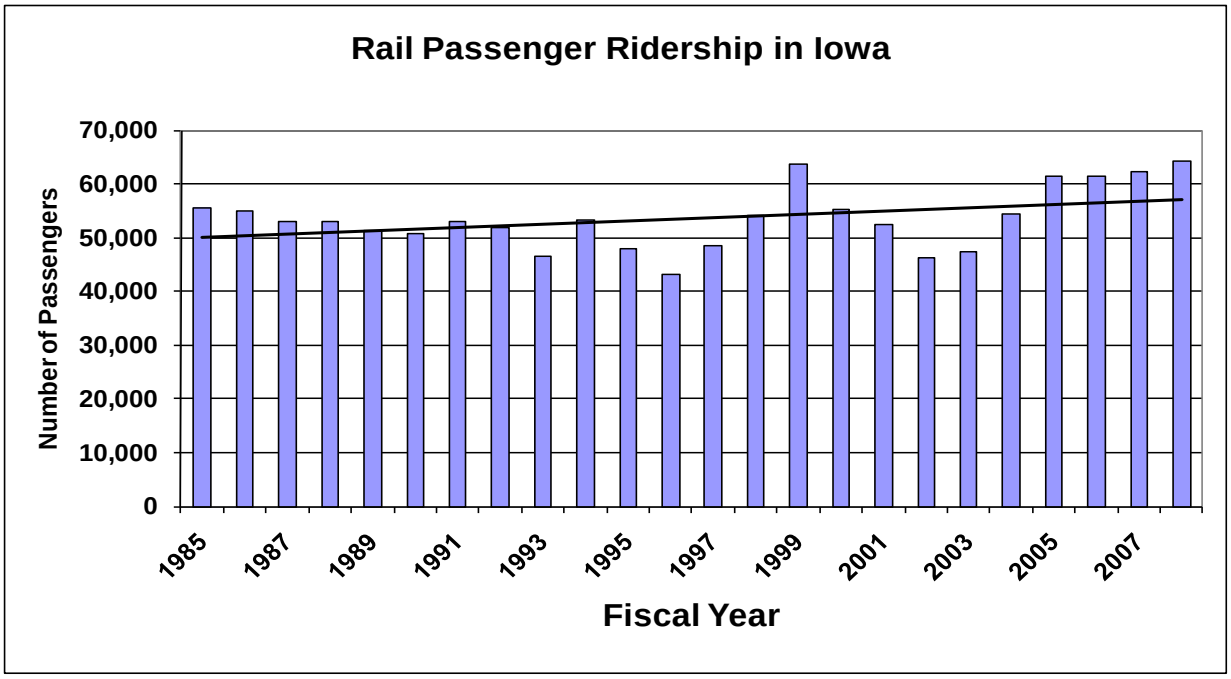
Source: Amtrak

Rail passenger ridership in Iowa (quality of life)

What this performance measure means. The amount of rail passenger ridership is a measure of quality of life calculated by summing the ridership at all passenger stations served in Iowa.

Why this performance measure is important. The number of riders served indicates the amount of people who have chosen another travel alternative. With higher ridership, more people are using rail passenger service as a mobility option other than the personal auto for travel. Using rail passenger service would help reduce some of the anxiety and stress from driving a personal vehicle.

Recent data and interpretation. The data below shows that ridership over the last four years has been more than 60,000. It also indicates a slight upward trend since 1985. One factor explaining this trend is that the number of rail passenger stations in Iowa has remained the same. Plus rail passenger service is provided in southern Iowa, which has lower population and population density.



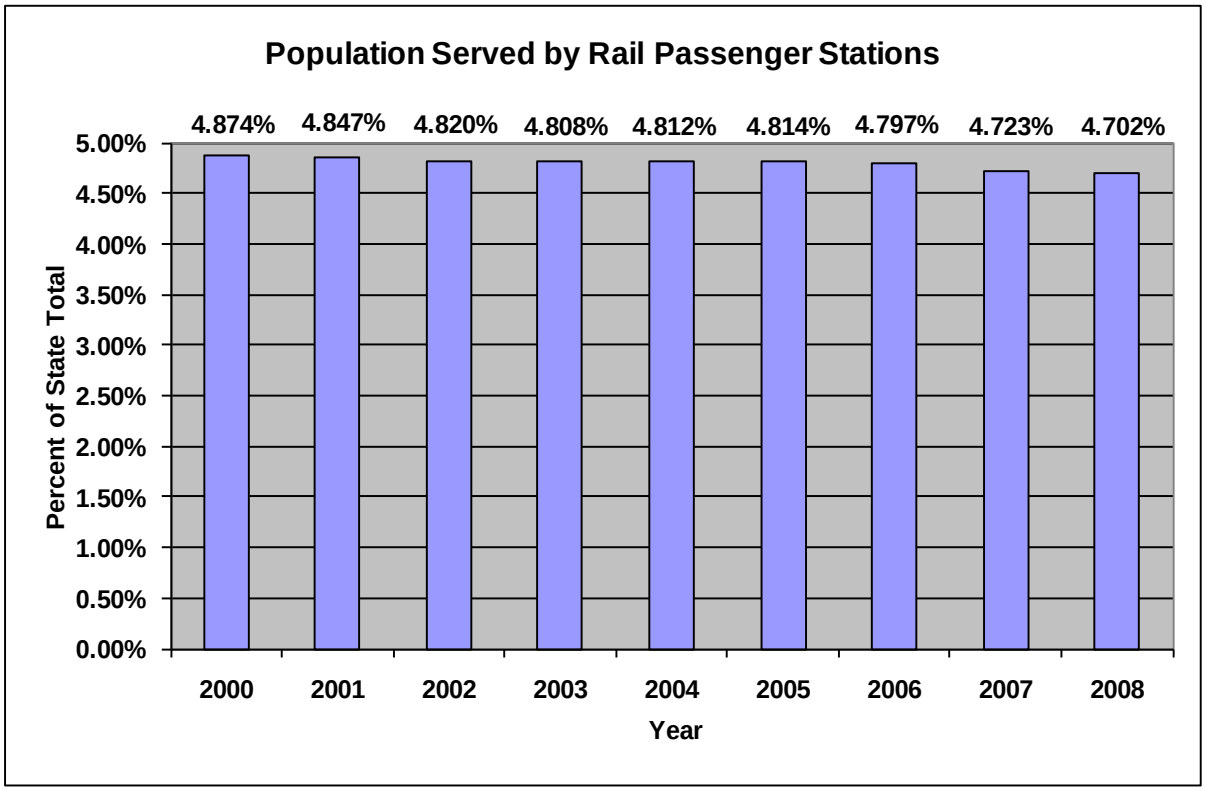
Source: Amtrak

Population served by rail passenger stations (quality of life)

What this performance measure means. The population served by rail passenger stations is a measure of quality of life calculated by summing the city population at all passenger stations served in Iowa.

Why this performance measure is important. The percent of population served indicates the amount of people who have another travel alternative. With higher percent of population served, more people have rail passenger service as a mobility option other than the personal auto for travel.

Recent data and interpretation. Data shows that a small percentage of Iowa's total population is located in a city that has a rail passenger service. It also indicates a slight downward trend, which is not desirable. One factor explaining this trend is that the number of rail passenger stations in Iowa has remained the same since 2000. Plus rail passenger service is provided in southern Iowa, which has lower population density.

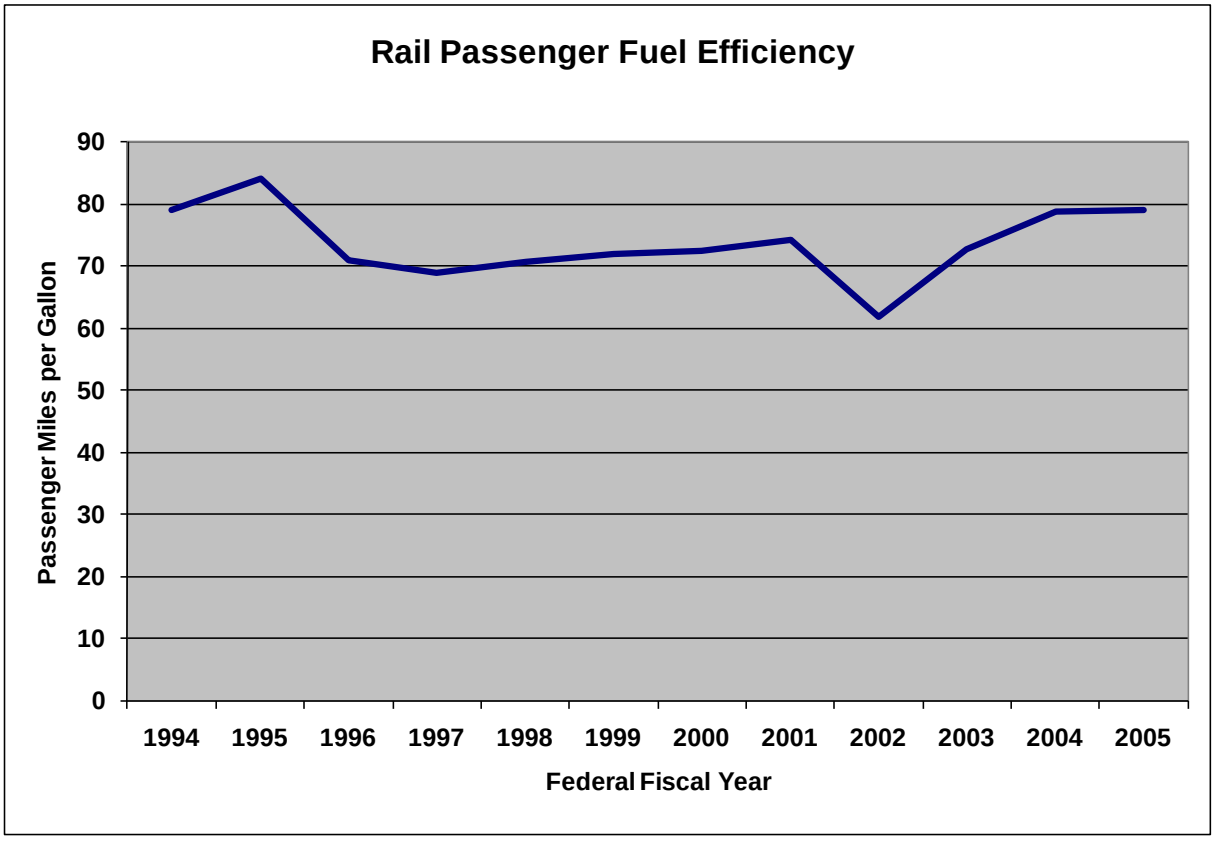


Rail passenger-miles per gallon (quality of life)

What this performance measure means. In 2004, there were more than 5.5 billion passenger-miles of rail traffic on Amtrak. A passenger-mile measures one rider traveling one mile on railroad track. Rail fuel use per passenger-mile, a measure of fuel efficiency, is the number of gallons of fuel it takes to move one passenger one mile.

Why this performance measure is important. Rail fuel use per passenger-mile measures the efficiency of Amtrak passenger service. With lower fuel consumption, operating costs and air pollution can decrease. Railroads are comparatively energy-efficient, but they can become even more efficient with targeted improvements.

Recent data and interpretation. Rail passenger service has become slightly more energy efficient since 1996. Since 1996, Amtrak has increased their fuel efficiency by 10 passenger-miles per gallon. As Amtrak continues to upgrade their roster with newer, more-efficient locomotives this trend should continue.



Source: Amtrak

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