



### What's the Freight Plan?

The primary purpose of the State Freight Plan is to document the immediate and long-range freight planning activities and investments in the state. More specifically, it will provide guidance on how to address issues, adapt to emerging trends, and invest strategically in the freight system to grow a stronger economy, strengthen the nation's competitive advantage, and enhance the quality of life for Iowans.



Developed in coordination with the Iowa Freight Advisory Council (FAC), the State Freight Plan serves as a platform for connecting Iowa's freight-related initiatives and a tool for informed decision-making aimed at addressing the ongoing challenges of today's freight system and supply chains.



### What's in the Freight Plan?

- **Goals:** Vision and direction
- **Inventory:** Overview of the multimodal freight transportation system
- **System performance:** Condition, utilization, safety, and reliability statistics
- **Commodity movement:** Tonnage/value by mode, commodities, and trading partners
- **Primary supply chains:** Identification and overview
- **Planning considerations:** Trends and issues influencing freight transportation
- **Strategies:** Actions and initiatives for plan implementation
- **Improvements:** Recommended priority investments by mode
- **Performance measures:** Freight metrics specific to mode
- **Freight Investment Plan:** Documents use of National Highway Freight Program funds



### What's changed from the last Freight Plan?

This plan is the second in the current series of freight plans that are now federally required to be updated every four years. The 2022 Freight Plan is an updated and streamlined version of the original 2017 freight plan with several notable enhancements that will impact the freight transportation system, including:

- Clearly defined system objectives
- Process for identifying multimodal bottlenecks
- Focus on infrastructure and supply chain resiliency
- Freight design considerations
- Commercial motor vehicle parking facilities assessment
- Catalog of freight-generating facilities

### Relationship to the state transportation plan

The State Freight Plan is developed to support the state transportation plan. More specifically, the following freight-specific items will align with the four Iowa DOT system objectives documented in the state transportation plan.

- Freight goals
- Implementation strategies
- Improvements/investments
- Performance measures

Each of Iowa's freight-related initiatives plays a role in a collaborative planning and programming process. The State Freight Plan is one of a variety of additional plans and tools the department utilizes to ultimately inform the development of the Five-Year Program. These include the state transportation plan, more specialized plans, system evaluation, and project-level evaluation tools.





## Multimodal freight transportation system

Iowa's 160,000-mile multimodal freight transportation system is comprised of multiple air cargo facilities, a well-developed highway system, a large web of pipelines, an extensive rail network, two bordering navigable waterways, and hundreds of freight-related facilities to assist in the movement of freight. The most critical freight infrastructure in the state is designated as part of the Iowa Multimodal Freight Network, which is used for:

- Informing freight transportation planning by tracking performance metrics (i.e., bottlenecks),
- Developing department policies for these corridors related to design and use,
- Recognizing corridors to protect and enhance for improved freight movement, and
- Assisting with strategically directing resources and investments to improve performance (i.e., use of National Highway Freight Program funds).

Iowa Multimodal Freight Network



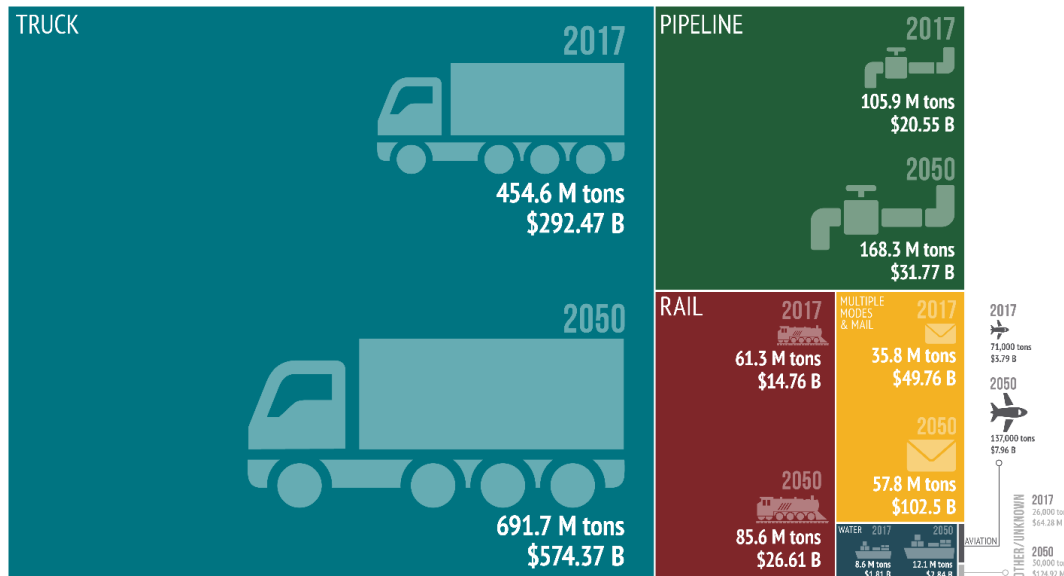
### Iowa's National Highway Freight Program allocation

2016	\$14,085,949
2017	\$13,386,574
2018	\$14,627,929
2019	\$16,511,333
2020	\$18,276,135
2021	\$18,161,883
2022	\$17,043,984
2023	\$17,384,864
2024	\$17,732,561
2025	\$18,087,213
2026	\$18,448,957
<b>Total</b>	<b>\$183,747,382</b>

### Top 10 freight planning considerations

- 1 Funding
- 2 Agriculture
- 3 Lock and dams
- 4 Trade
- 5 Multimodal
- 6 Safety
- 7 Resiliency
- 8 Truck cargo
- 9 Highway design
- 10 Regulations

Iowa freight movement by mode





## Mode comparison

Transportation costs play a large role in the decisions of Iowa shippers. Having various transportation options allows for cost savings and opportunities to optimize supply chains as each mode has different characteristics that may make the efficient transport of certain commodities ideal for one mode but not another.

**Aviation** handles the most time-sensitive and lowest weight cargo and has the highest shipping costs.

Most freight in Iowa is carried on the **Highway** system. Although trucking movements are typically more expensive than rail or water transport, it is the most flexible. Trucks generally move small amounts of a few hundred pounds all the way up to 50,000 pounds per shipment. Truckload service providers move products using equipment such as dry van, flatbed, hopper, tank, and refrigerated trailers.

**Railroad** movements are generally less expensive than trucking and more fuel-efficient but are more restricted by the privately-owned networks the trains move on. This mode is well suited for moving large volumes of freight between two shipping points and, like trucks, uses dry car, flatbed, hopper, tank, and refrigerated equipment.

Transporting commodities via **Waterway** is the slowest and least flexible of the freight modes. However, it is the most fuel-efficient, cheapest, and can handle the largest volumes per trip. One barge can handle as much as 70 semi trucks or more than 16 rail cars.

# COMPARE ...

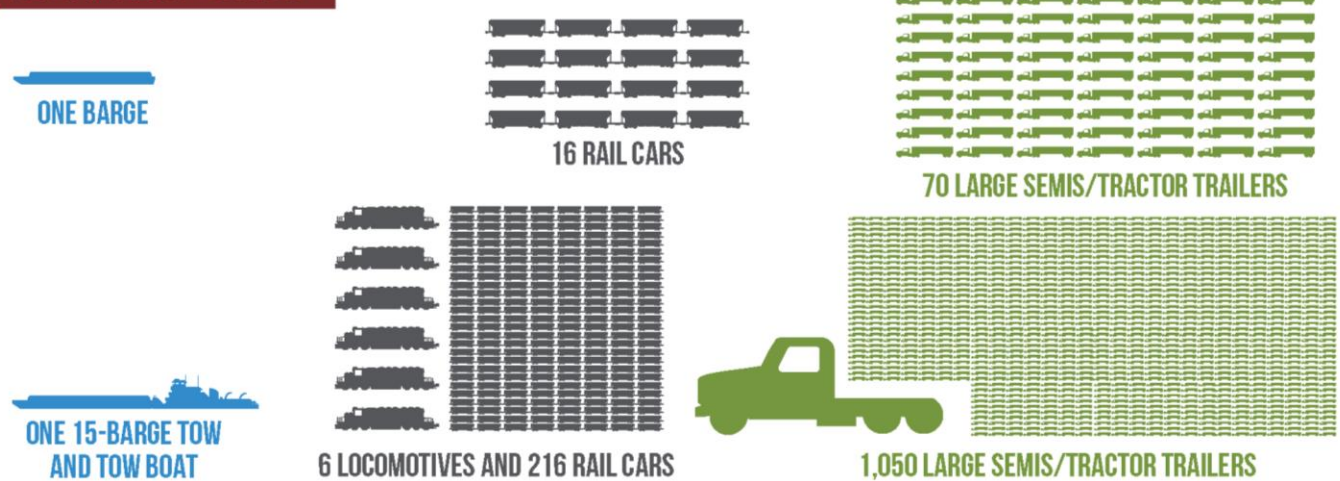


Source: Iowa Department of Transportation | 800 Lincoln Way | Ames, IA | [www.iowadot.gov](http://www.iowadot.gov)

## CARGO CAPACITY



## EQUIVALENT UNITS



## EQUIVALENT LENGTHS





## Freight goals

### SAFETY

Improve the safety, security, and resilience of the national freight system.

### INFRASTRUCTURE

Modernize freight infrastructure and operations to grow the economy, increase competitiveness, and improve quality of life.

### INNOVATION

Prepare for the future by supporting the development of data, technologies, and workforce capabilities that improve freight system performance.

## Implementation strategies (prioritized by the FAC)

Iowa's overall freight improvement strategy includes a listing of prioritized implementation strategies that were developed in consultation with freight stakeholders. Each element of the department's strategy aims to address freight specific needs and aligns with both the priorities of the FAC and the national freight goals.

- 1 Explore additional sustainable funding sources to increase investment in the freight transportation system.
- 2 Support the development and adoption of emerging freight technologies to increase safety and efficiency.
- 3 Partner with freight stakeholders to find innovative ways to address labor shortages across industry sectors.
- 4 Advance a 21st century Farm-to-Market System that moves products seamlessly across road, rail, and water to global marketplaces.
- 5 Streamline and align freight-related regulations and minimize unintended consequences.
- 6 Explore opportunities for increasing value-added production within the state.
- 7 Improve freight transportation system resiliency.
- 8 Collaborate with railroad operators to provide Iowa companies with increased access and capacity to accommodate additional Iowa freight shipments.
- 9 Support opportunities to develop new intermodal freight facilities in the state.
- 10 Target investment to address mobility issues that impact freight movements.
- 11 Continually monitor international trade deals and negotiations.
- 12 Advocate for the funding and improvement of the inland waterway system and explore ways to expand Iowa's role.
- 13 Optimize the availability and use of freight shipping containers, including exploring other options for repositioning empty containers.
- 14 Partner with law enforcement and the trucking industry to combat human trafficking.
- 15 Mitigate the impacts of freight transportation on the environment and communities.
- 16 Target investment in the Iowa Multimodal Freight Network (IMFN) at a level that reflects the importance of this system for moving freight.
- 17 Rightsize the highway system and apply cost-effective solutions to locations with existing and anticipated issues.
- 18 Enhance planning and asset management practices for the IMFN by utilizing designs and treatments that are compatible with significant freight movements.
- 19 Work with partners to address increasing truck parking demand.