



Freight Analysis Framework (FAF5) Overview

Sustainable Mobility Systems Workshop, Golden, CO

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U.S. Department of Transportation
Federal Highway Administration

Disclaimers

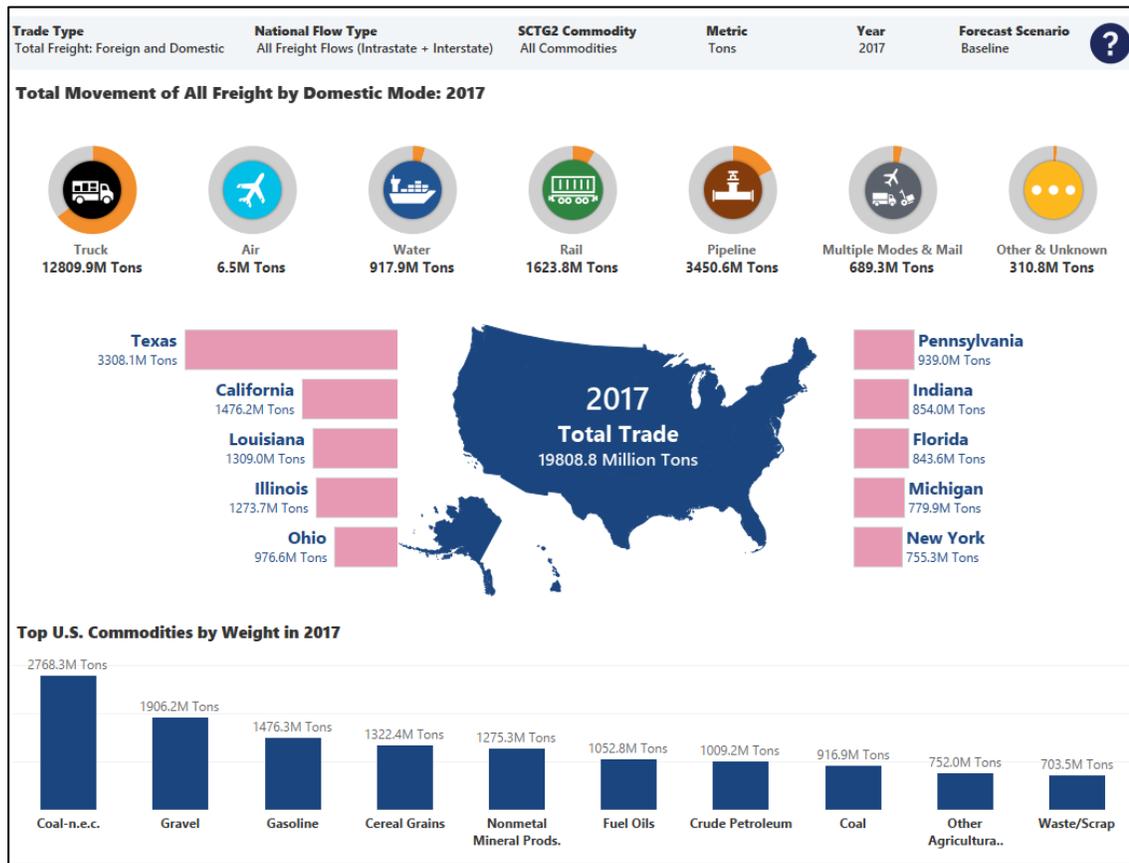
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What is FAF?

FAF5 Webpage: https://ops.fhwa.dot.gov/freight/freight_analysis/faf/



FAF Provides a Comprehensive Picture of Freight Movement in the U.S.

- Includes information on:
 - Weight and value of freight transported
 - Types of commodities and transport mode
 - Freight truck routings
- Offers tools to obtain customized data for analysis
- Updated every 5 years in conjunction with economic census

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.2.



What Information Does FAF5 Include?

What is Moving?

- Types of commodities

Where is it Moving?

- Between metropolitan areas
- Between States
- Between U.S. and foreign countries
- Within U.S. including States and metropolitan areas

How Much is Moving?

- Tons, ton-miles, and value of goods moved (various modes including truck, rail, air, and water)

How Much is Expected to Move (flow scenarios)?

- Base year estimates
- 30-year forecasts

FAF Data Include:

- 42 commodity categories
- Domestic flows
- Freight exports and imports
- Weight and value by 6 transport modes
- 3 forecast scenarios

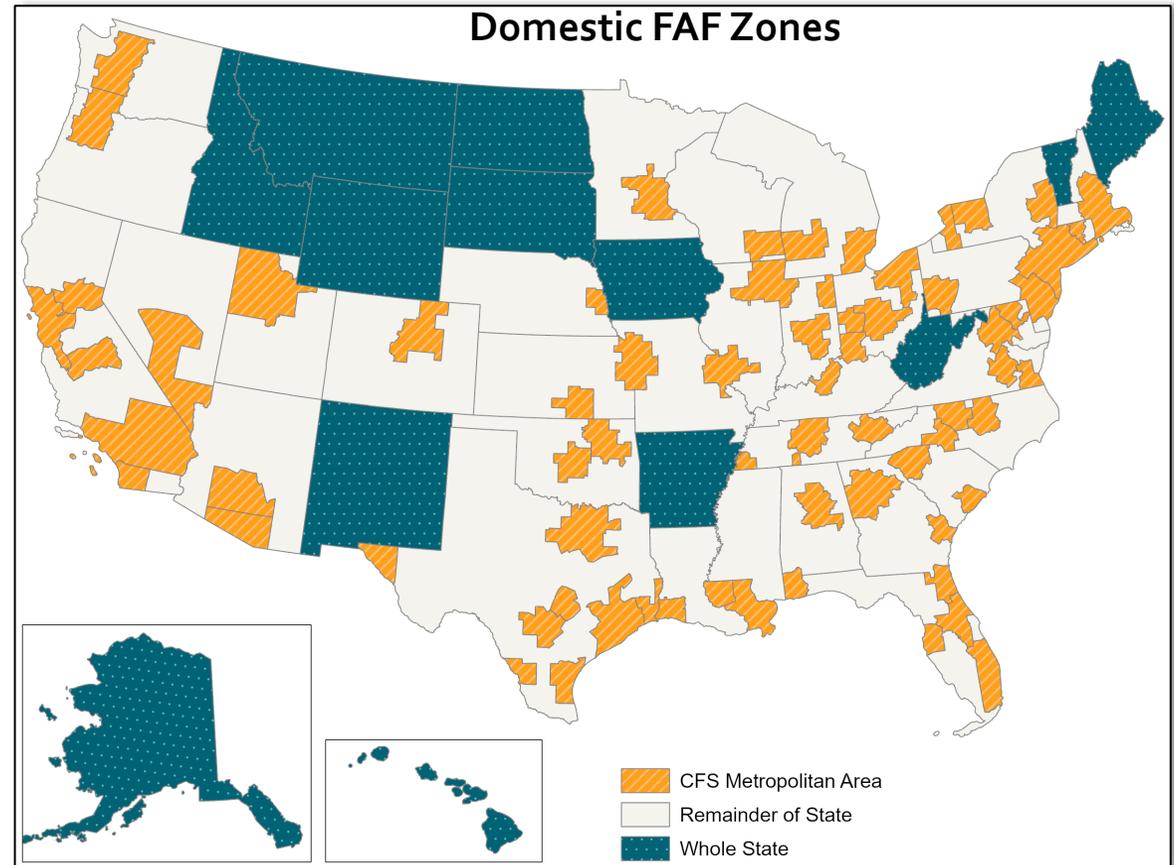


How are Geographies Represented in FAF5?

FAF Zones Include:

- Domestic zones (representing 50 States and the District of Columbia)
- International zones (8 regions):
 - Canada
 - Mexico
 - Rest of Americas
 - Europe
 - Africa
 - Southwest & Central Asia
 - Eastern Asia
 - Southeast Asia & Oceania

Additional information on FAF zones is available at: <https://www.census.gov/programs-surveys/cfs.html>



Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.1.

Domestic FAF zone shapefiles are available on the FAF5 webpage at <https://faf.ornl.gov/faf5/>

What Can FAF Help Me Do?

FAF can help:

- Inform freight analysis and decision-making
- Improve understanding of current and projected future freight needs
- Enhance understanding of current and projected future freight movement
- Illuminate links between freight and economic activity
- Improve freight performance monitoring and management
- Better visualize freight flows and other freight data

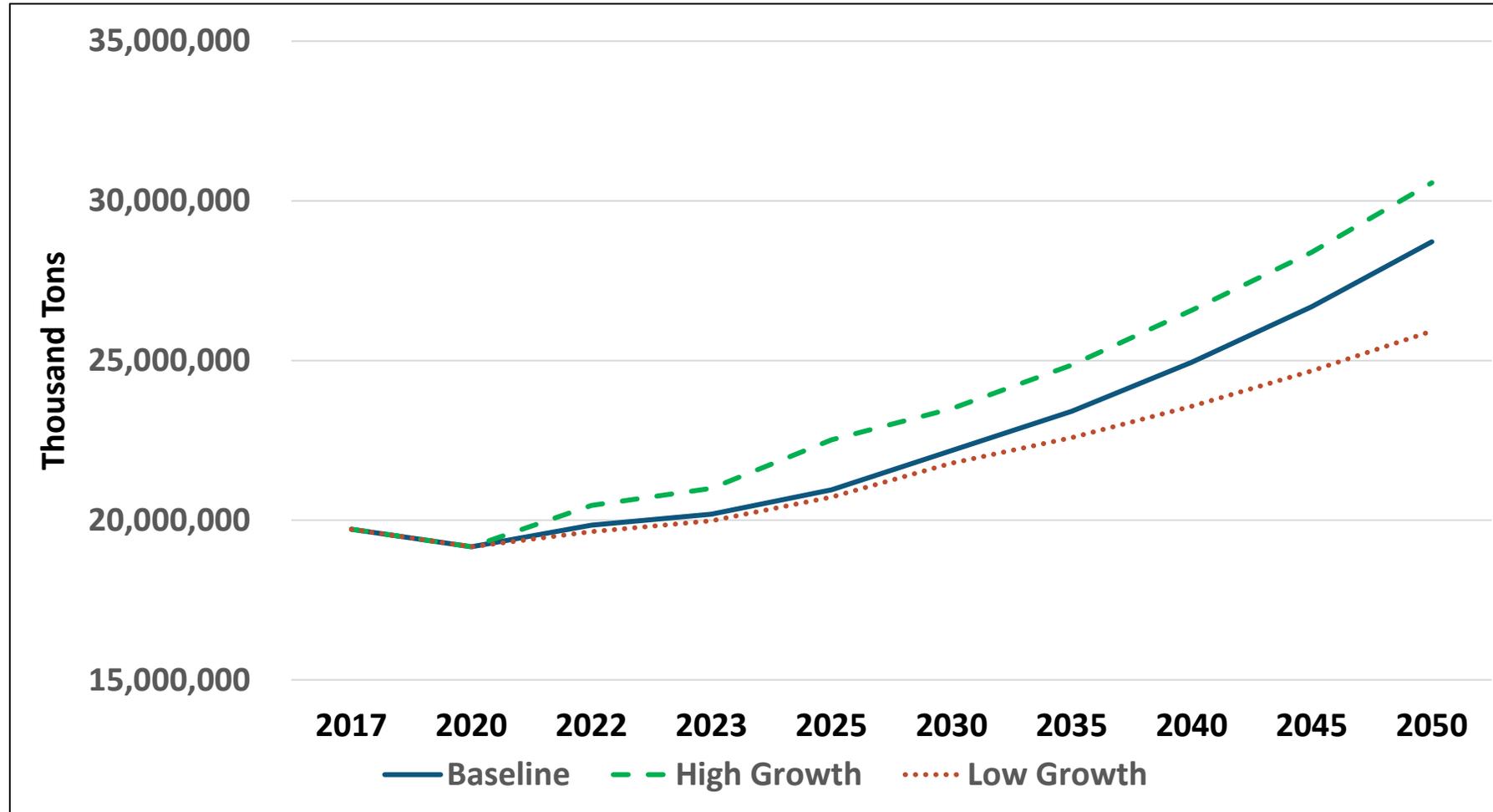
Examples of FAF Use Cases:

- ✓ Support development of or updates to the State Freight Plan
- ✓ Help identify commodity corridors and trade lanes
- ✓ Provide control totals for modeling needs to understand State/regional freight connectivity
- ✓ Help conduct macro-level analysis for drafting grant applications



What is an Example of a FAF Output?

FAF5 Total Flows by Scenario



Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.2.



What is an Example of a FAF Output?

FAF5 Trucking Corridors by Commodity

Additional National Level Maps of Trucking Corridors by Commodity:

https://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/index.htm

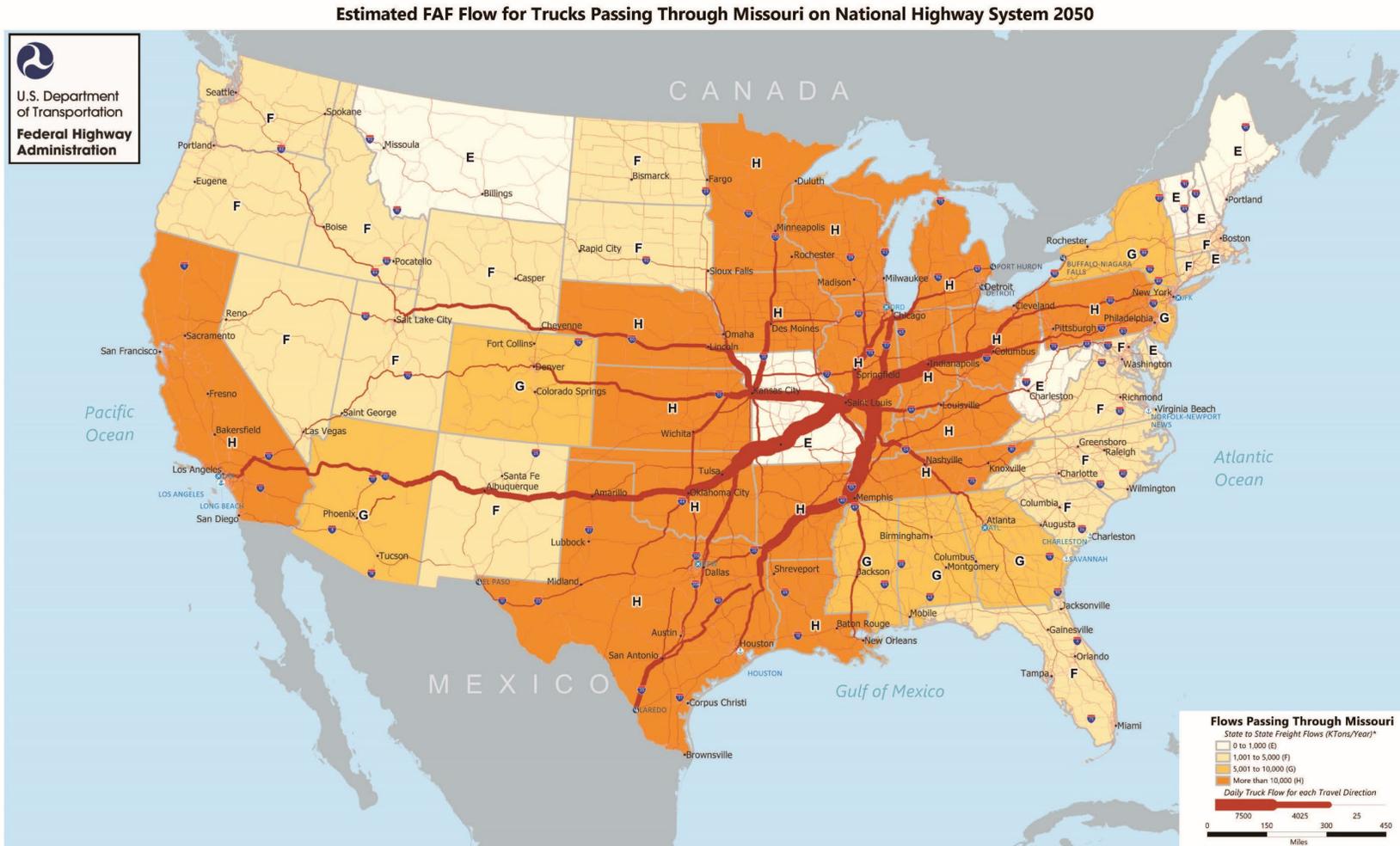


Note: Major flows include domestic and international freight moving by truck on highway segments with more than 25 FAF trucks per day and between places typically more than fifty miles apart.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.2.
Flows include Motorized vehicles (SCTG36) commodities represented in FAF.



What is an Example of a FAF Output?

Example: State freight through-flows



Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty-five FAF trucks per day and between places typically more than fifty miles apart.

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.2. Flows include 42 different commodities represented in FAF.

*State to State flows represent annual KTons of freight transported by trucks that pass through Missouri including imports and exports that use Missouri as the gateway port.



FAF5 User Resources and Tools

Pre-Populated Resources

- FAF5 Users Guide
 - <https://www.bts.gov/faf/faf5-user-guide>
- FAF5 Forecast Report
 - <https://ops.fhwa.dot.gov/publications/fhwahop22037/fhwahop22037.pdf>
- Summary tables and key statistics
 - <https://faf.ornl.gov/faf5/SummaryTable.aspx>
- National level truck flow corridor maps
 - https://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/index.htm
- State level truck flow corridor maps
 - https://ops.fhwa.dot.gov/freight/freight_analysis/state_info/index.htm

Web-Based Tools for Customized Analysis

- FAF5 Visualization Tool and dashboards
(Release by June 2023)
- Data tabulation tool
 - https://faf.ornl.gov/faf5/dtt_total.aspx



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