

# *Data Sources for Freight Planning*

## *A Federal Perspective*

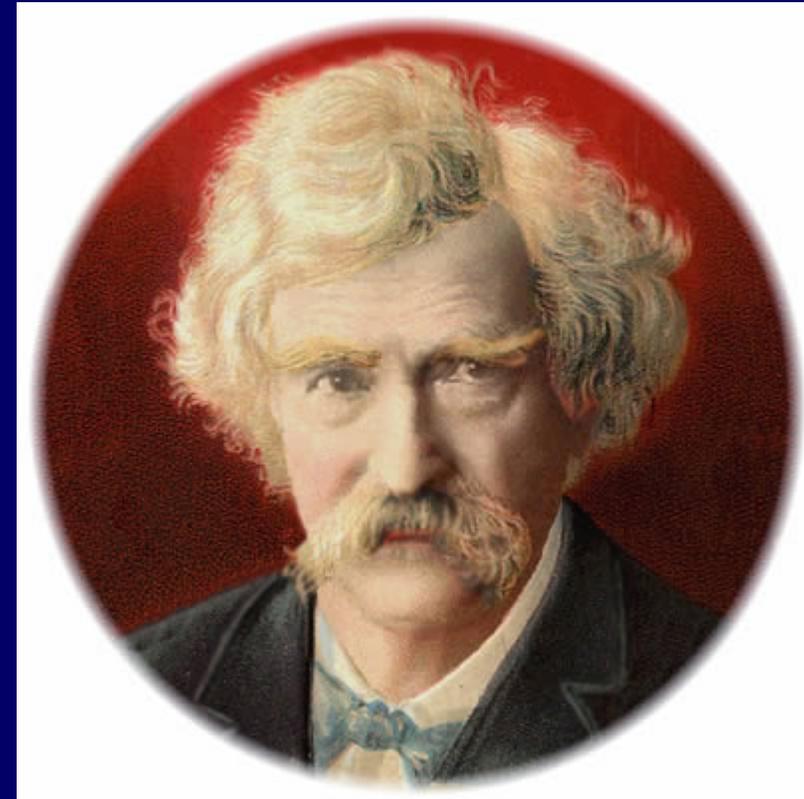


*Mark Twain—Let's not put off Freight*

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Do not put off until  
tomorrow . . .

. . . what can be put  
off until the day-  
after-tomorrow



# *Are you feeling like the possum?*

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- Not trying to “run you over”
- Increased Freight importance
- More freight traffic now and projected
- Dedicated Funding?
- Positioned to take advantage
- We’re from the gov’t and we’re here to help--Literally

# *Why is Freight Planning Important?*

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From 1990-2005:

- Passenger Vehicle Miles up 20.0%
- Class 1 Rail Freight Miles up 44.2%
- Truck Miles up 52.4%

Source: Pocket Guide to Transportation 2008

# *Freight Planning Data Sources*

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- Freight Analysis Framework (FAF)
- Commodity Flow Survey (CFS)
- Surface Transportation Board (STB) Waybill
- U.S. Army Corps of Engineers-Waterborne Commerce
- Bureau of Transportation Statistics (BTS)
- Census Data Sources
- Airports
- State and Local Data

# *Freight Analysis Framework*

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- Freight Analysis Framework (FAF) integrates data from many sources into:

Region-to-region tons and value by all modes for shipments in 1997 and 2002, provisional estimates for most recent year, and forecasts through 2035

[http://ops.fhwa.dot.gov/freight/freight\\_analysis/faf/index.htm](http://ops.fhwa.dot.gov/freight/freight_analysis/faf/index.htm)

- Freight Performance Measures Program

- Speeds of 400,000 trucks on 25 Interstate Highways by time and place
- Crossing delay at major border crossings



# *Freight Analysis Framework (cont.)*

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- Estimate total volume of freight moving between and within FAF regions by mode and commodity
- Assign longer distance flows (places at least 50 miles apart) to corridors with reasonable accuracy
- Forecast total volume of freight moving between and within FAF regions by mode and commodity
- FAF provides a comprehensive national picture of freight flows

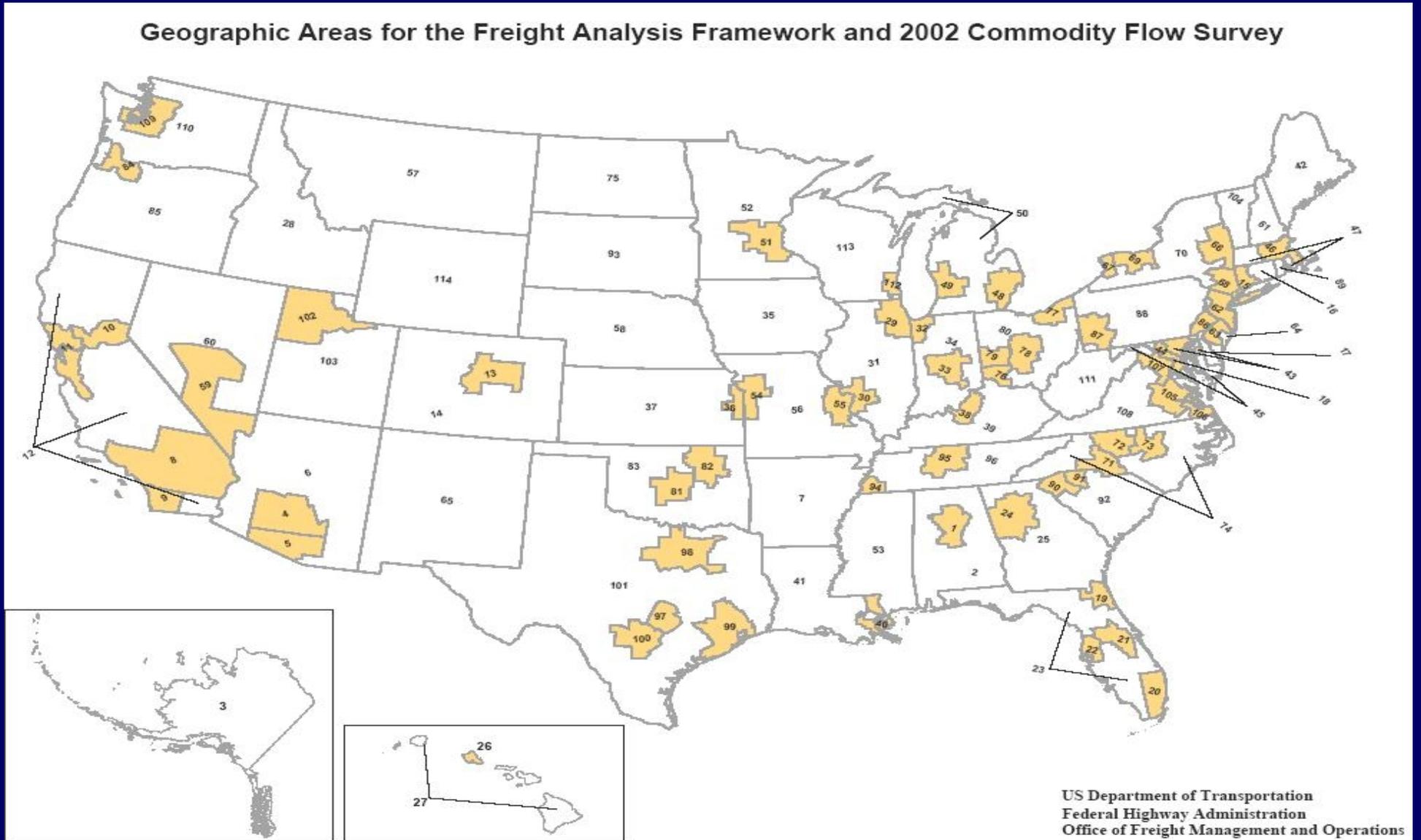
# ***FAF details: region-to-region flows***

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## Origin-Destination Database

- Value and weight for all domestic shipments, exports, and imports (excludes only foreign-to-foreign via US)
- 6 modes (truck, rail, water, air, intermodal, pipeline and unknown)
- 114 domestic CFS regions, 17 additional international gateways, 7 international regions
- 43 commodity classes (2-digit SCTG codes)
- Estimates for Economic Census years (1997 and 2002), forecasts for 2010 through 2035. Provisional estimates for most recent year

# FAF details: the 114 CFS regions



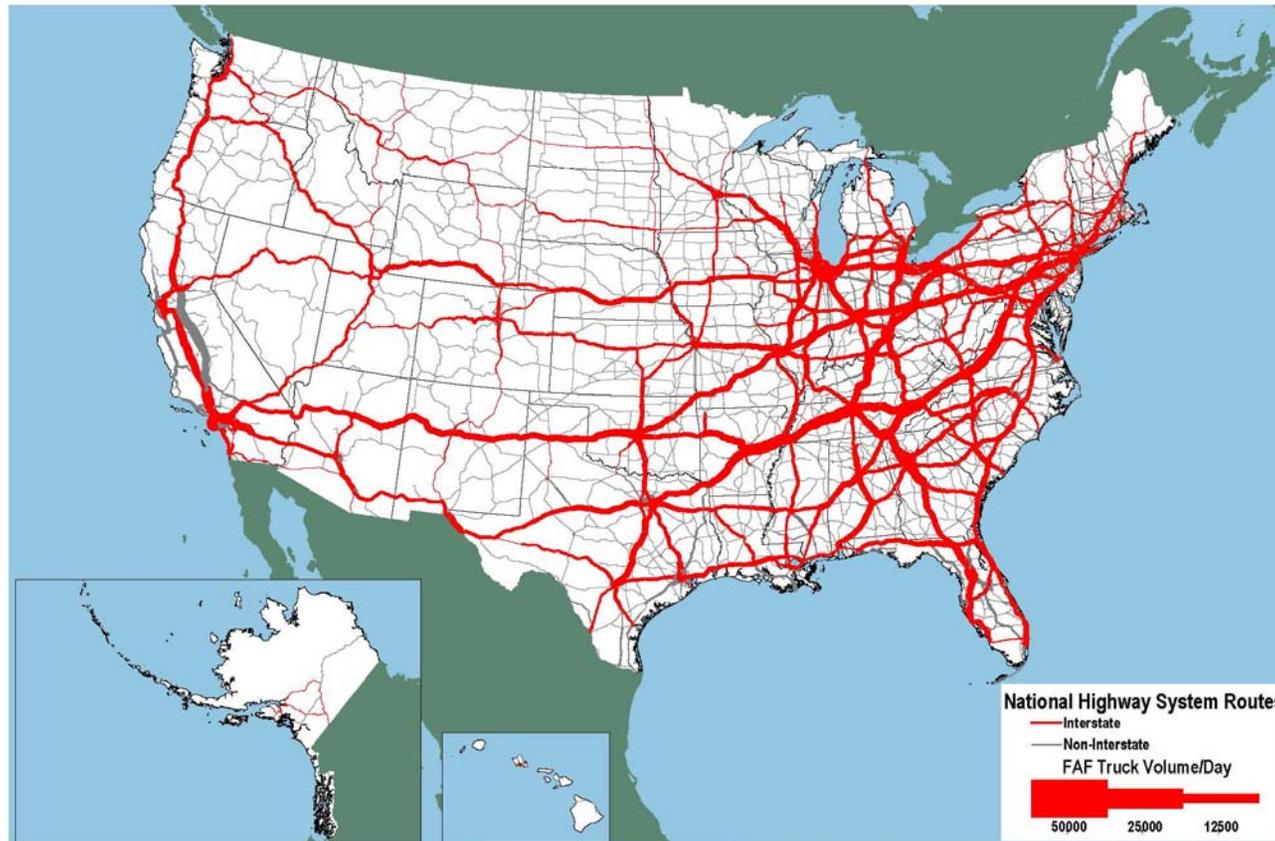
# ***FAF Versions***

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- Version 1 covers longer distance flows for 1998, 2010, and 2020 by all modes except pipeline, with available public detail and transparency limited by proprietary data
- Version 2 makes the most of the 2002 Economic Census and is based on public data and transparent methods
- Version 2.2 corrects problems encountered with international flows the initial release of version 2
- Version 2.3 will include ton miles estimates and final adjustments to version 2
- Version 3 will be based on the 2007 Economic Census and will be available later in 2009.

# FAF details: trucks on the network

Average Daily Long-Haul Freight Truck Traffic on the National Highway System: 2002



Note: Long-haul freight trucks serve locations at least 50 miles apart, excluding trucks that are used in intermodal movements.  
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 2.2, 2007.

# ***FAF details: relationship with CFS***

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- The CFS is the major data source for the FAF and provides domestic geography and definitions of modes/intermodal
- The CFS has greater commodity detail and identifies hazardous cargo, but does not include imports, shipments from farms, shipments of crude petroleum and municipal solid waste, etc.
- The FAF estimates tons and value of freight not covered by the CFS
- Final data for the 2007 version available Dec. 2009
- [http://www.bts.gov/programs/commodity\\_flow\\_survey/](http://www.bts.gov/programs/commodity_flow_survey/)

# ***FAF details: relationship with the Rail Waybill***

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- Shipments by more than one railroad are counted more than once in the Rail Waybill and only once in the FAF
- Shipments by rail and one or more other modes are counted as rail in the Rail Waybill and as Intermodal in the FAF

# *STB Waybill Data*

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- It is a stratified sample of carload waybills for all U.S. rail traffic submitted by those rail carriers terminating 4,500 or more revenue carloads annually.
- Confidential information for specific areas can be requested as well. The process for obtaining that data is included in the STB Waybill website.
- [http://www.stb.dot.gov/stb/industry/econ\\_waybill.html](http://www.stb.dot.gov/stb/industry/econ_waybill.html)

# ***FAF details: relationship with Waterborne Commerce***

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- Shipments by a combination of deep sea, inland water, and intra-port are counted once in the FAF and multiple times in Waterborne Commerce
- Crude petroleum from off-shore platforms is counted as water in Waterborne Commerce and pipeline in FAF
- Shipments to and from Puerto Rico are counted as domestic in Waterborne Commerce and as part of Latin America in FAF

# *U.S. Army Corps of Engineers—Waterborne Commerce*

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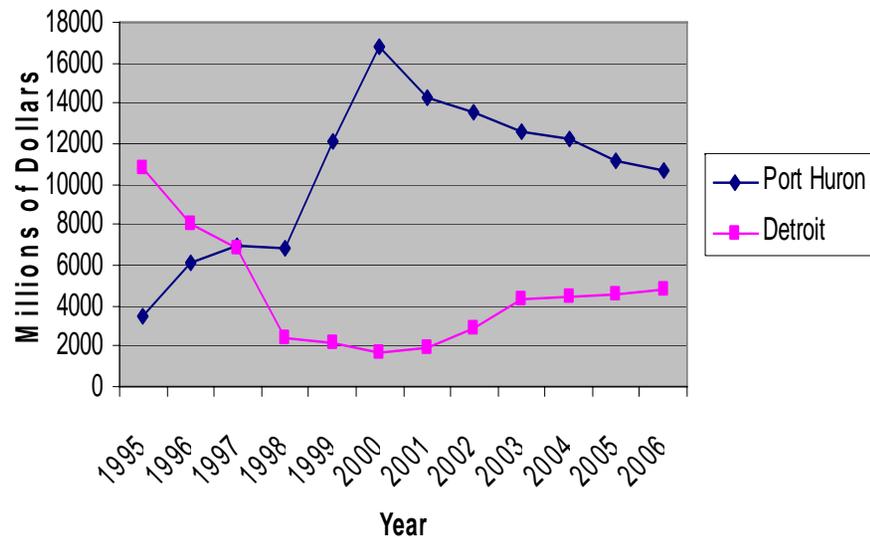
- The primary function of the Waterborne Commerce Statistics Center, under the authority of the Rivers & Harbors Act of 1922, is to collect, process, distribute, and archive vessel trip and cargo data. These statistics are used to analyze the feasibility of new projects and to set priorities for new investment, and for the operation, rehabilitation and maintenance of existing projects.
- Local Port Data available
- <http://www.iwr.usace.army.mil/ndc/wcsc/wcsc.htm>

# Bureau of Transportation Statistics (BTS)

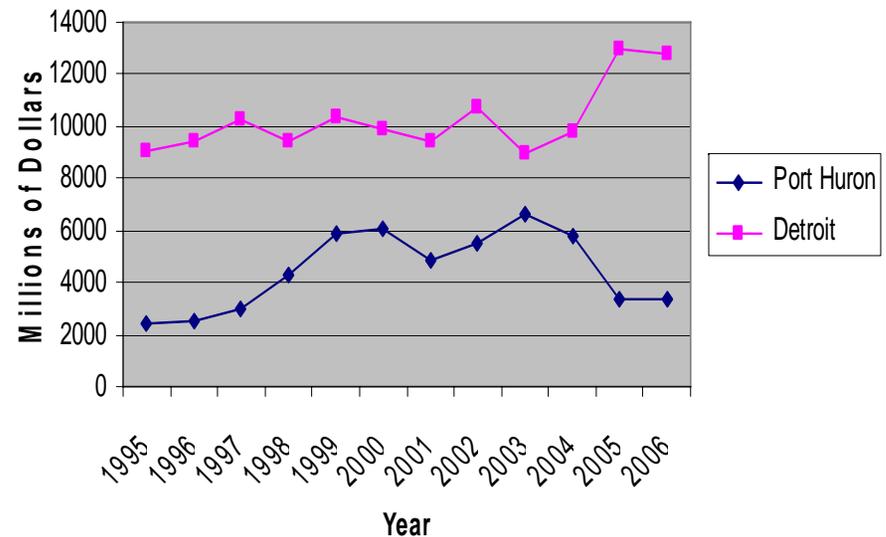
## Border Data

[http://www.bts.gov/programs/international/transborder/TBDR\\_QA.html](http://www.bts.gov/programs/international/transborder/TBDR_QA.html)

Rail Imports 1995-2006 by Value (in Millions of US Dollars)



Truck Exports 1995-2006 by Value (in Millions of US Dollars)



# *Local Sources*

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- Surveys
- Truck Counts
- Direct Contact
- Annual Reports
- Michigan DOT/Other Governmental Bodies
- Chambers of Commerce
- Economic Development Agencies
- Other Associations or Trade Groups

# Summary

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- Freight is a growing part of the picture
- FAF – Comprehensive but limited source
- Rail , Air and Water sources exist and can be localized
- BTS can be used to study freight entering MI (truck, air, water, pipeline)
- State and Local Sources can be very helpful.
- FHWA and MDOT are here to assist.

A photograph showing a white police car with a blue and red light bar on top, parked on a street. The car has a badge on the side and the words "Division 4" and "Baltimore" visible. In the foreground, a large, rectangular sign on a metal stand is positioned. The sign has a black top border and a light-colored body with the text "SLOW DOWN THE COP HIDES BEHIND THIS SIGN" written in large, bold, black letters. The background features a yellow building with several windows and a satellite dish. The scene is set on a paved road with a grassy area in the middle ground.

**SLOW DOWN  
THE COP HIDES  
BEHIND THIS SIGN**

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**Federal Highway Administration  
U.S. Department of Transportation**

# *Questions and feedback*

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