



# FREIGHT IN KENTUCKY

Bernadette Dupont, FHWA-KY

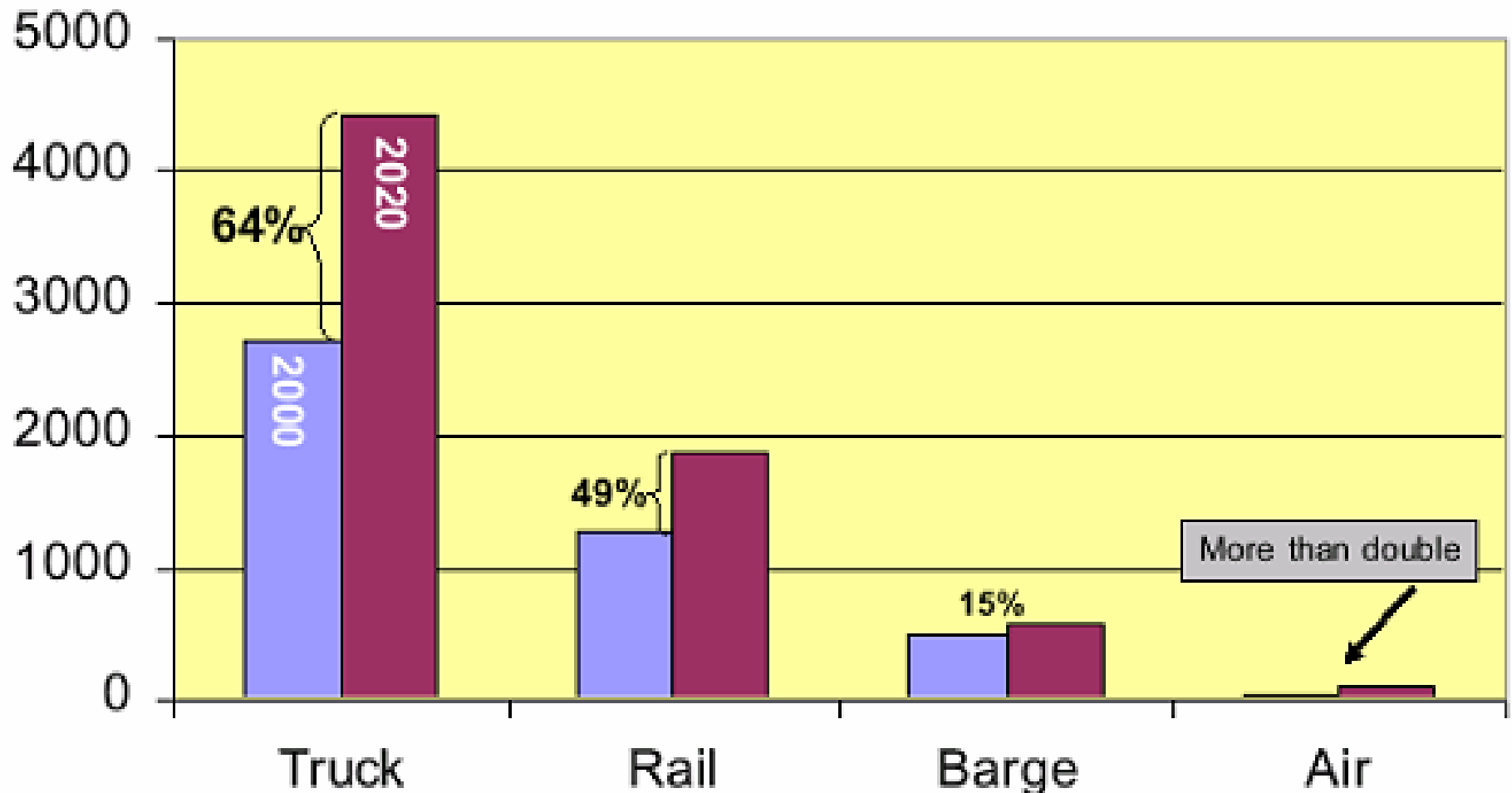
2007 Freight Conference, Frankfort, KY

May 15, 2007

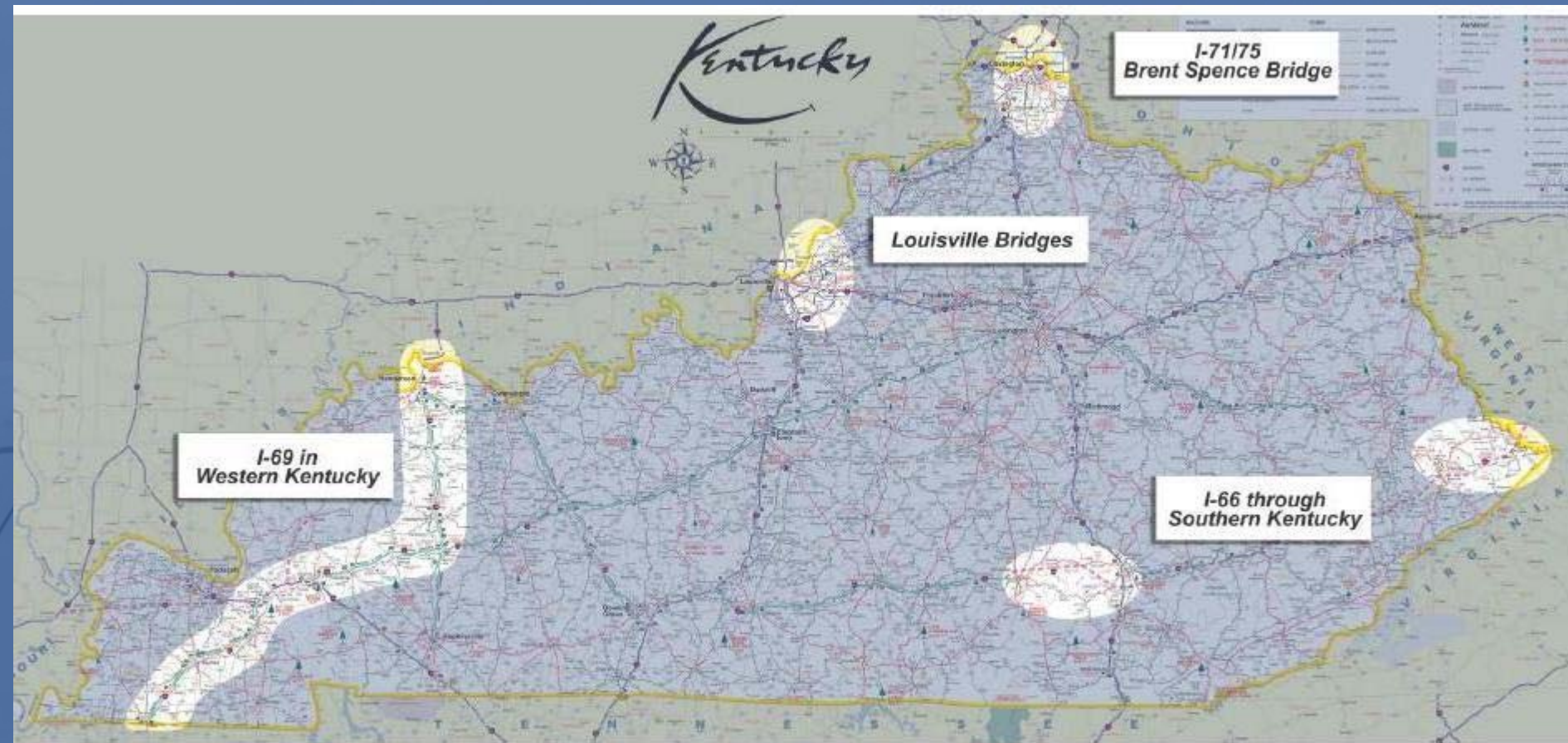
# National Trends - By 2020



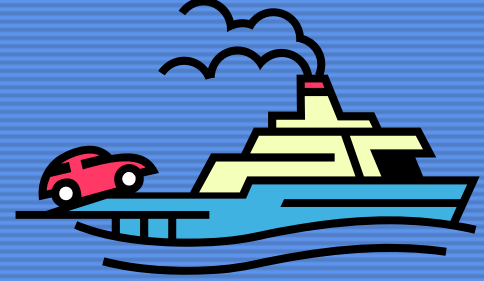
Billions of Ton-Miles



# Mega Projects



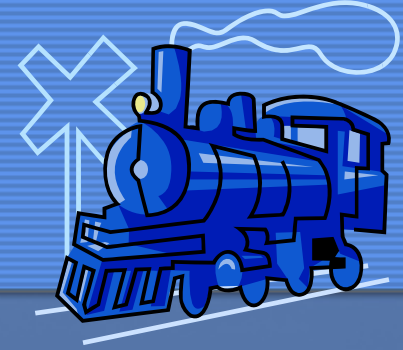
# Integrating Freight into the Planning Process



- State law says that State Road Funds have to be used only on State Roads.
- KY has no dedicated funding sources for rail, riverports or waterways
  - Freight projects go in with all other transportation projects and are prioritized.
  - Historically, they have not ranked high enough to be funded.

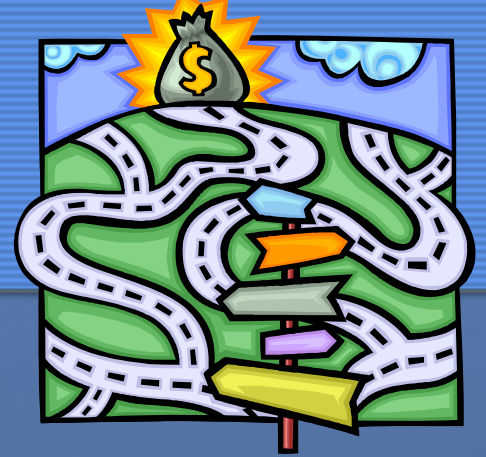


# Integrating Freight into the Planning Process



- However, General funds, Local funds, or the Secretary's Discretionary Fund have been used for some freight projects
  - State money has been used to fund the operation of 6 ferries
  - Secretary's Discretionary funds have been used to partially fund riverports and ferries
- Federal funds for railroad and ferries
- Federal funds for safety at rail crossing

# Integrating Freight into the Planning Process



- Developing relationships with KY Cabinet for Economic Development and Local Economic Development
- GIS Mapping of
  - Modal Maps in participant handbook
- New Intermodal Version of Project Identification Forms (PIF) in works
  - Expect a prioritized list of project to go into the unfunded needs list, which feeds into the State's Six-year Plan, which is used to develop the State STIP

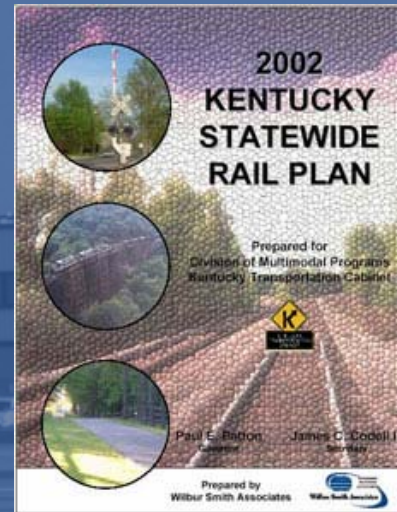
# Freight Plans

**2007**

**KENTUCKY  
STATEWIDE  
RIVERPORT  
PLAN**

**2006**

**KENTUCKY  
STATEWIDE  
INTERMODAL  
FREIGHT  
PLAN**



**2000**

**KENTUCKY  
STATEWIDE  
ITS  
STRATEGIC  
PLAN**

# Integrating Freight into the Planning Process



- July 2006
  - Statewide Freight Plan
    - used to identify priority network
- August 2006
  - Added Freight Corridors to Priority Network
  - Extra points for freight corridors when prioritizing projects



# KY's Priority Network

## Average Daily Traffic (ADT) on the Priority Network



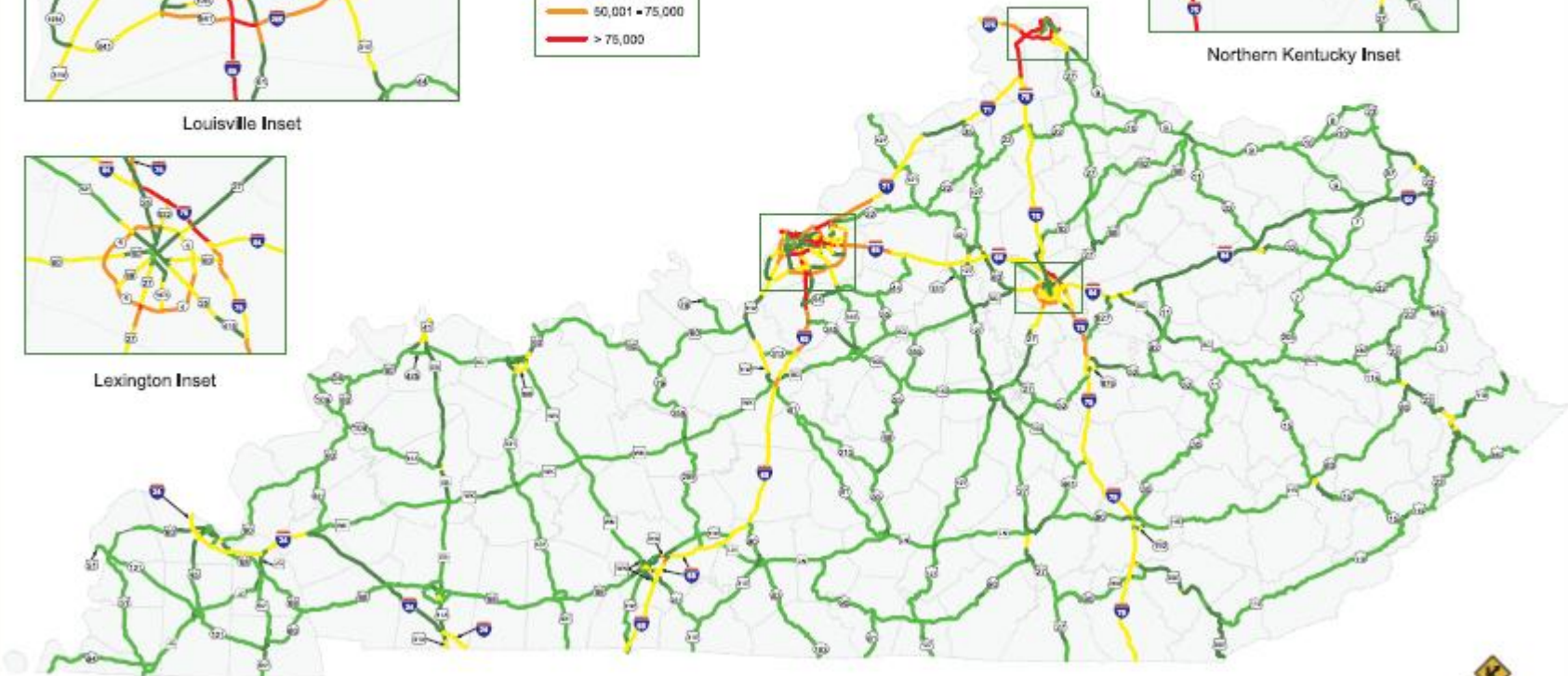
Louisville Inset



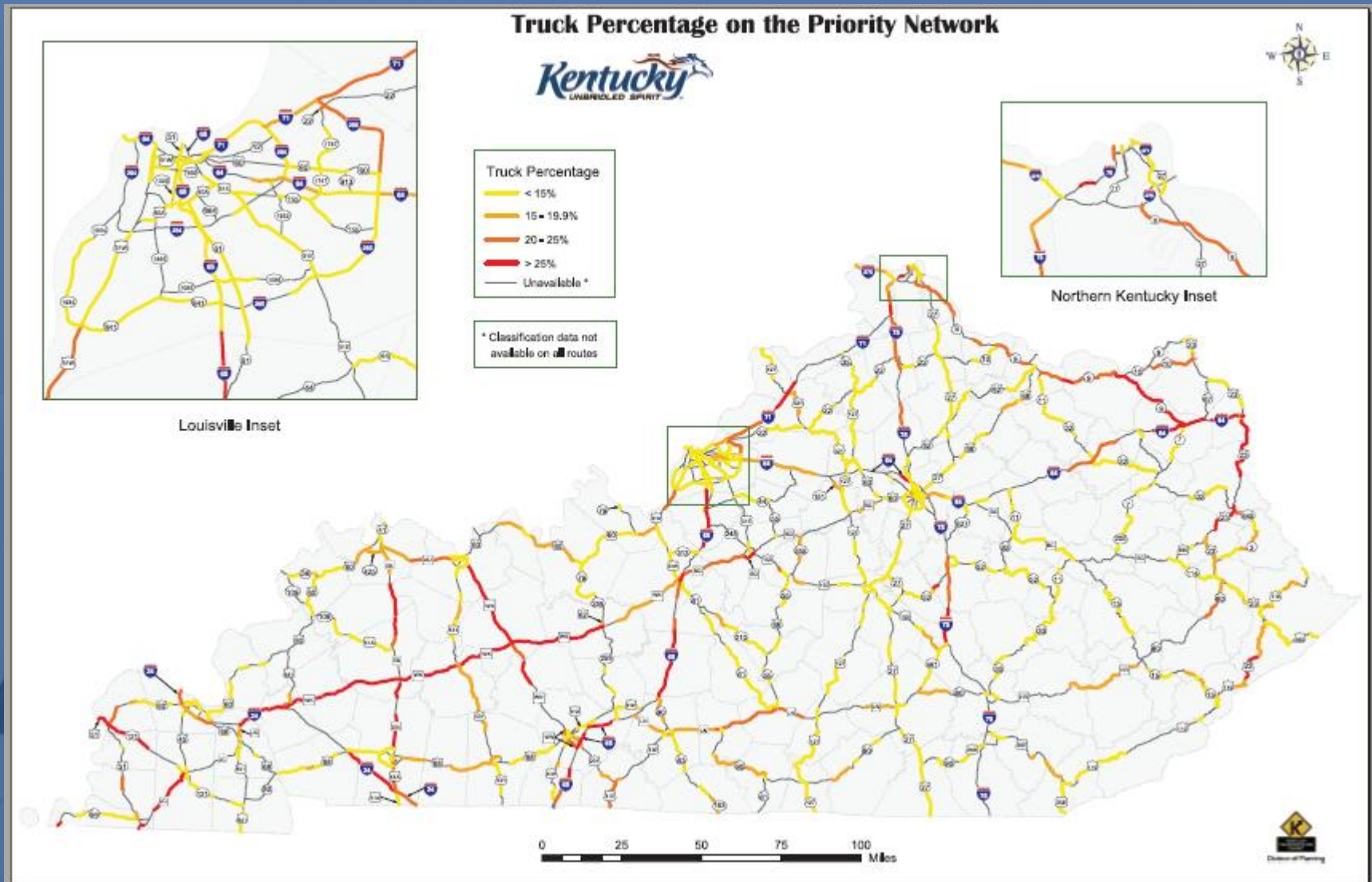
Lexington Inset



Northern Kentucky Inset



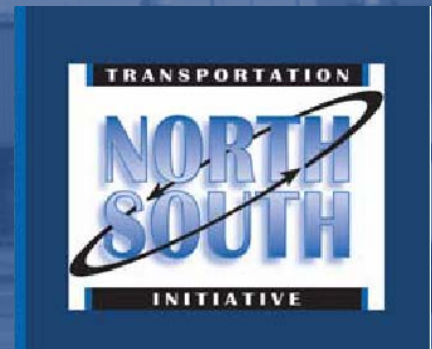
# KY's Priority Network- Truck %



# Traffic Modeling/ Forecasting



- Kentucky Statewide Traffic Model (KYSTM)
  - Used in 1997 for I-66 Corridor Study
  - Truck purpose
- KYCIMS – Commodity Information Management System
  - Under development 2007
- Combined Cincinnati-Dayton model
  - North-South Initiative (I-75 Corridor between greater Cincinnati and Dayton)
  - Analyzed truck lanes and other freight solutions
- Various models
  - Ashland
  - Bowling Green
  - Christian/Montgomery
  - Evansville/Henderson – Freight Component
  - Owensboro
  - Scott
  - Simpson County

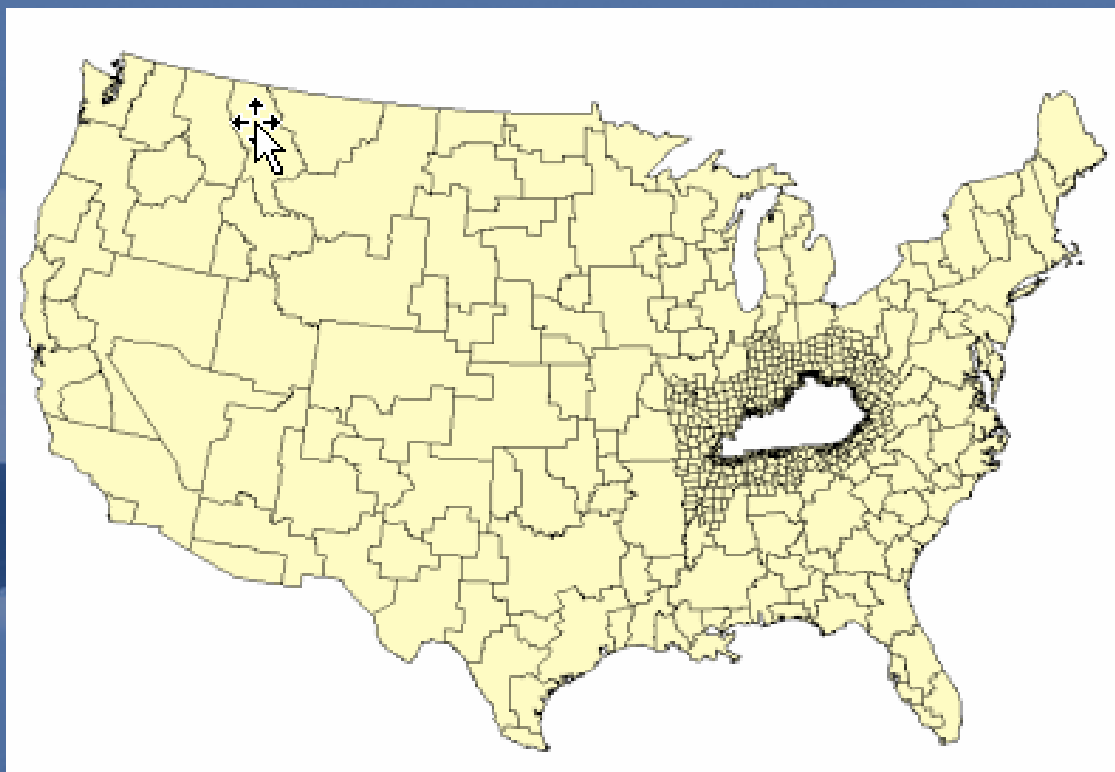






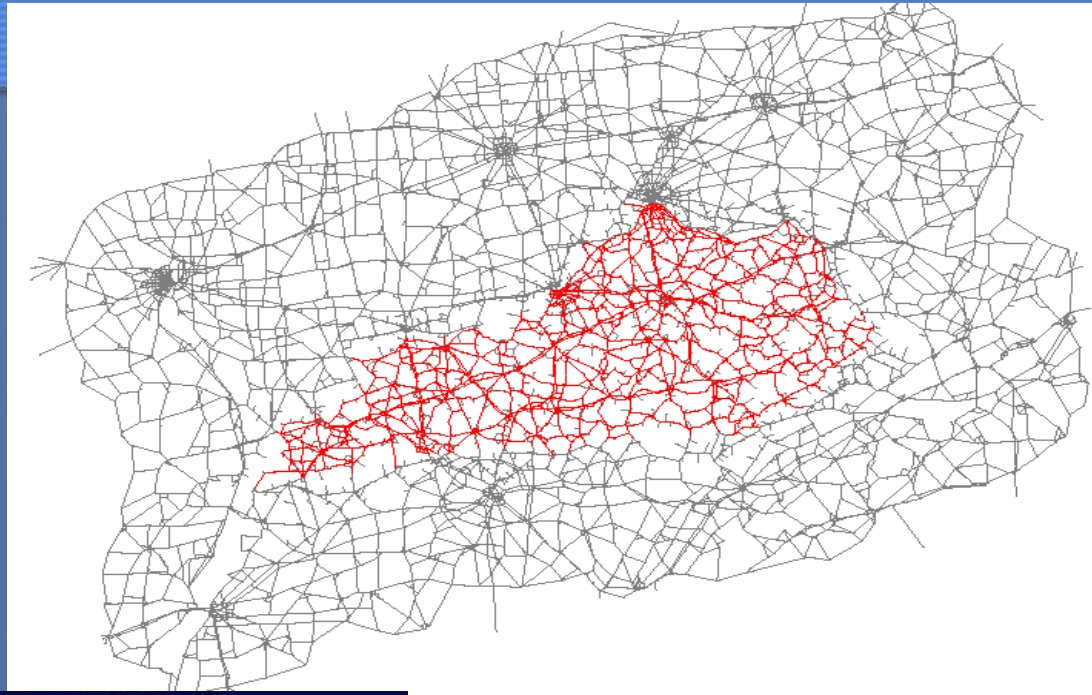
- Used since 1975, updated several times
- Now have:
  - More truck assignments
  - Intermodal hubs Identified
  - True GIS
  - Other new applications





# Kentucky's Statewide Traffic Model

- Used recently for I-66



# Research



## Completed Research

- Identification of Truck/Intermodal Facilities
- Evaluation of Extended Truck Weight Impacts
- Weigh-In-Motion (WIM) Technologies

# Research



## On-Going Research

- Kentucky's First Virtual Weigh Station
- Commercial Vehicle Information Systems & Networks (CVISN) - 1996
- ARTIMIS & TRIMARC
- Multiple Safety Research Projects
- Facilitate automatic identification of commercial vehicles.



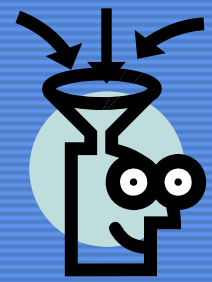
# Research



## New Research

- Commercial Vehicle Monitoring station (weigh station) optimization; used KYSTM to assess trips using weigh stations and make recommendations on where to place mid-state CVM locations
- Development of strategic plan for incident management
- Riverport Study

# Freight Professional Development



1. Host a Regional Freight Conference once every two years with State.

- May 15, 2007, Frankfort, KY

2. Publish a Freight Newsletter

- Freight Focus

3. Participate in Talking Freight Seminars on a monthly basis



# Freight Professional Development



## 4. Have brought several **Freight Courses** to KY

- Integrating Freight Into the Transportation Planning Process
- Multimodal Freight Forecasting in Transportation Planning
- Engaging the Private Sector in Freight Planning

## 5. **Freight Distribution List**

- Disseminate Information

# Freight Analysis



## 1. Utilize the Freight Analysis Framework (FAF<sup>2</sup>) to:

- Determine commodity flows and related freight transportation activities,
- Analyze system,
- Measure system performance, and
- Determine freight transportation improvements.

## 2. Highway Economics Requirements System-State Version (HERS-ST)

- Engineering/economic analysis (EEA) tool that uses engineering standards to identify highway deficiencies

## 3. GEOFREIGHT

- Intermodal Freight Decision Making Tool

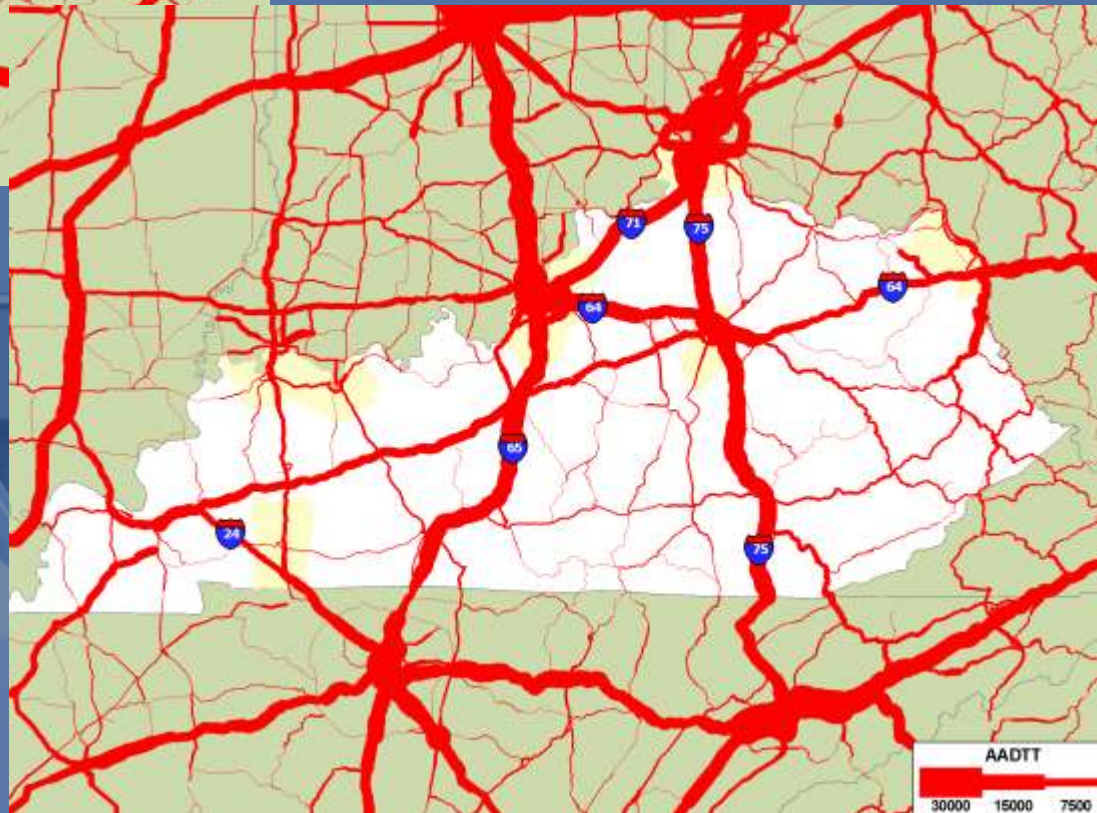




1998

Freight By Truck

2020

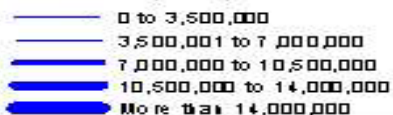


# KY Freight - Water

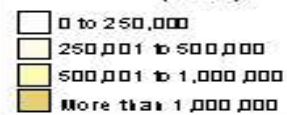


**KENTUCKY**  
Total Domestic Water Flows  
(1998)

**Network Flows  
(Tons)**



**State to State Flows  
(Tons)**





# KY Freight - Rail



# Intermodal Freight Technology

Conduct operational tests of intelligent transportation system (ITS) technologies

- TRIMARC
- ARTIMIS
- TOC







# TRIMARC

- Louisville/Southern Indiana
- 60 miles of interstate
- Interactive Website
- Auto Incident Recording System (AIRS) monitoring
  - 8-sec recording



# ARTIMIS

*The Advanced Regional Traffic Interactive Management & Information System*

## ARTIMIS

- Advanced Regional Traffic Interactive Management and Information System
- Cincinnati/Northern Kentucky
- 88 miles of interstate traffic



# TOC

- Statewide Traffic Operations Center
- Located in Frankfort, KY
- Cumberland Gap Tunnel, Clays Ferry Bridges (Homeland Security)
- I-75 Laurel and Whitley Counties, Lexington, TRIMARC, and ARTIMIS areas
- Expanding with 6 new Dynamic Message Boards: Clark, Madison, Scott, and Woodford Counties

# Vehicle Size and Weight

- Certifies state compliance with Federal standards and provides information on state enforcement activities, reporting requirements, and contacts.
- Develop an annual plan.



# QUESTIONS?



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