Cross Border Regional Truck Transportation Conference

> Gene Griffin Upper Great Plains Transportation Institute North Dakota State University June 15-16, 2005

## Thesis

- Improving truck productivity is critical to sustaining the U.S. economy and will help keep it from eroding in the future. It is not, in itself a sufficient condition, but it is absolutely a necessary condition.
  - Countries are working hard to emulate the efficiency of the U.S. logistical system

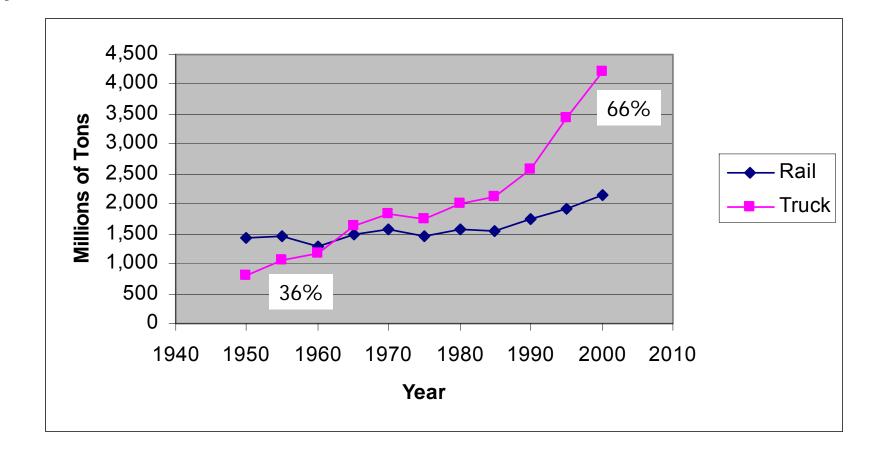
## Four Topics

- Changing domestic economy
- Globalization is spreading faster
- Congestion is getting worse
- Fossil fuel consumption is increasing

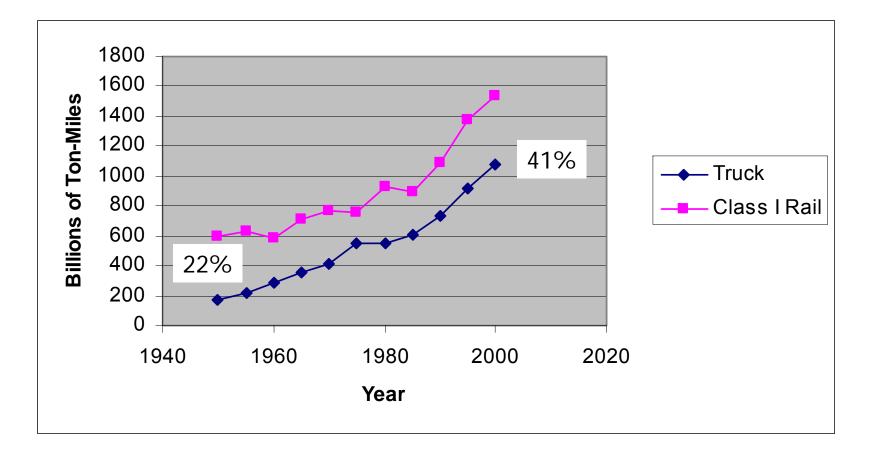
## Changing Economy

- Natural resources/agriculture 1800's
- Durable goods early 1900's
- Consumer goods 40's, 50's, & 60's
- Service economy 70's, 80's, & 90's
- Knowledge based 21<sup>st</sup> Century

## Intercity Tonnage by Mode

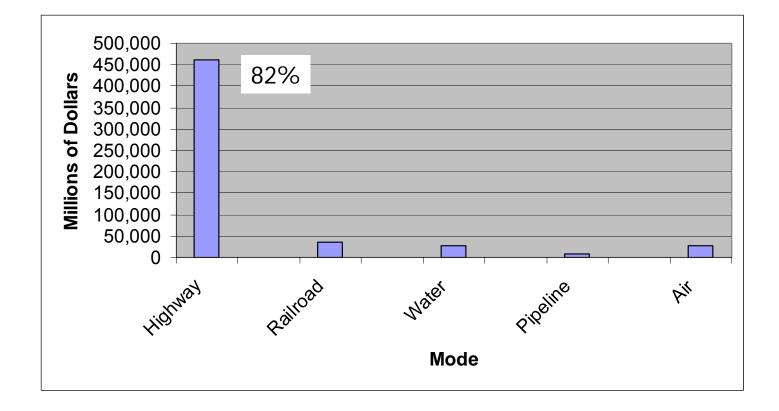


#### U.S. Ton-Miles of Freight



Source: Transportation in America, ENO Transportation Foundation

## 2000 Freight Revenue by Mode



Source: Transportation in America, ENO Transportation Foundation

## **Conclusion 1**

- Trucks have become the most critical element in providing freight mobility in the U.S. economy.
- The economy as we know it would not have evolved without truck transportation and cannot be sustained without improved truck freight mobility.

## Globalization

- How many in this room would have thought in 1995 that they would be economically secure if they had a degree in computer science?
- How many feel that way today?
- Bangalore, India

## Globalization

- What % of the world GDP was accounted for by China and India prior to 1415?
  - **75%**
- In 1947 Asia accounted for 8% of the world GDP and a majority of the world population!!!

#### The World is Flat – 10 Flatteners

- Fall of the Berlin Wall
- Netscape IPO
- Work flow software
- Open-sourcing
- Out-sourcing

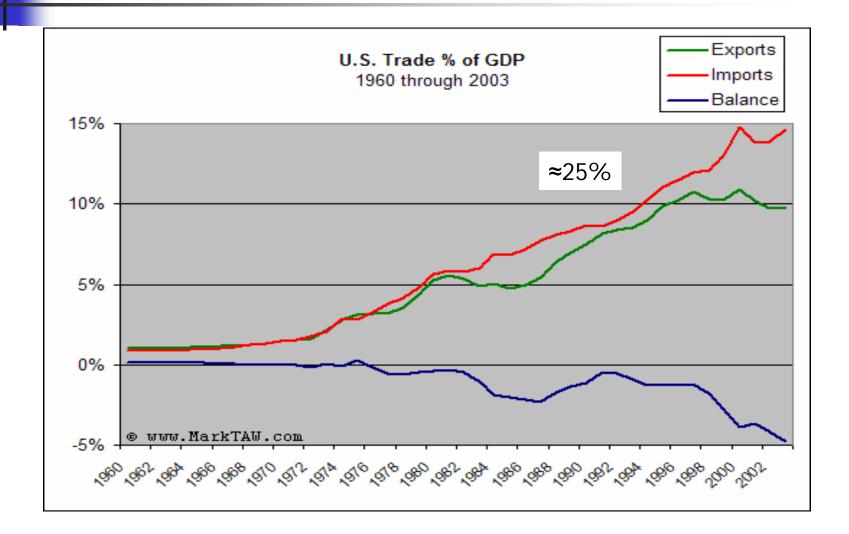
- Off-shoring
- Supply-chaining
- In-sourcing
- In-forming; Google
- Steroids
  - Digital
  - Mobile
  - Personal
  - Virtual

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#### Trade as a % of U.S. GDP



## **Overcoming Trade Deficit**

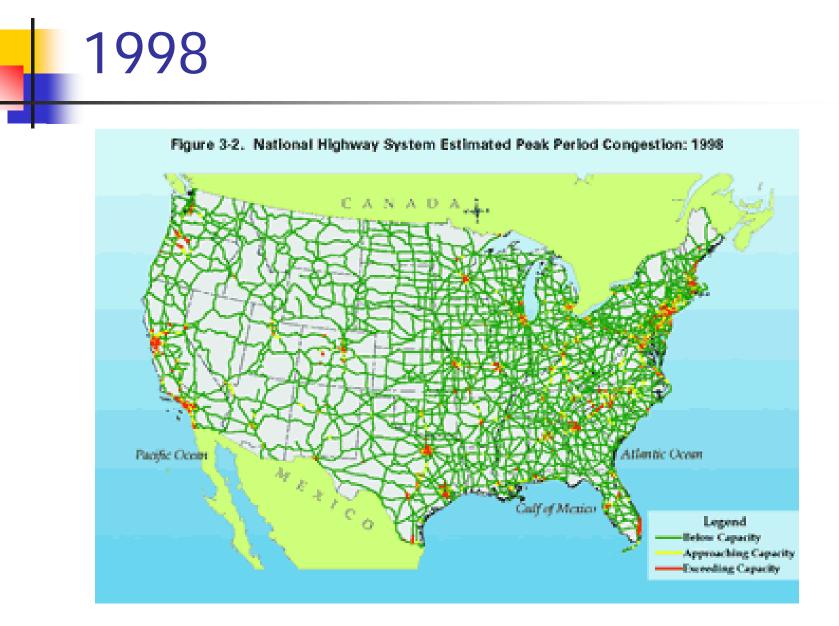
- Currently over \$600 billion, 6% of GDP
- Does manufacturing matter?
  - 23% of GDP in 80's to 12.7% today
- Export of services unlikely to fill gap
- Technology development moving offshore

## Conclusion 2

- Globalization will increase at an even faster pace than before.
- Trade will continue to grow.
- Trade deficit is unsustainable.
- U.S. must improve productivity, particularly in manufacturing, if it hopes to maintain its position in world economy.

# Congestion by Urban Area

Urban Area	Hours of Delay per Traveler				
	1982	1993	2003		
Atlanta	14	38	67		
Washington, DC	21	51	69		
Dallas-Fort Worth	13	47	60		
Los Angeles-Long Beach	47	113	93		
Chicago	16	42	58		
San Francisco-Oakland	30	62	72		
Detroit	17	77	57		
Miami	11	39	51		
Boston	14	38	51		
New York-Newark	18	34	49		
Phoenix	18	42	49		
Houston	39	38	63		
Philadelphia	14	25	38		



## 2020 Projections



## U.S. Freight Growth

Exhibit 24: BTS's U.S. Domestic Freight Ton-Mileage Growth Forecasts by Mode (2000 to 2025)						
			Percent	Compound		
	Ton-Miles in	Ton-Miles in	Change (2000	Annual Growth		
Mode	Billions (2000)	Billions (2025)	to 2025)	Rate (CAGR)		
Intercity Truck	1,130.1	2,121.8	87.7%	2.55%		
Rail	1,416.4	1,484.8	4.8%	0.18%		
Air	15.9	33.9	113.2%	3.08%		

Source: Unpublished NCHRP Report

## **Conclusion 3**

- Congestion is getting worse
- It will become much more costly and get much worse if projections of freight growth are realized

## **Fuel Consumption**

	1980	1990	2000	2002
	(Million Gallons)			
Highway Total	114,960	130,755	162,555	167,730
Truck, total	19,960	24,490	35,229	36,756
Single-unit 2-axle 6-tire or more	6,923	8,357	9,563	10,305
Combination truck	13,037	16,133	25,666	26,451
Truck (percent of total)	17.4	18.7	21.7	21.9

## Reason to Improve Productivity

- Improve global competitiveness
- Increase domestic competition
- Decrease congestion
- Decrease fuel consumption
- This will result in improved economic growth and deficit reduction

#### What Do We Need to Do???

- That's your challenge
- However, the body politic must be convinced, because whatever it is, it most likely will not effect all people evenly

#### **Final Question**

- How many of you believe that your children and grand children will have the same or better quality of life that you had???
- Increased productivity in trucking is a necessary but not sufficient condition

## Final Thought

"The reasonable man adapts himself to the world, the unreasonable one persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man."