

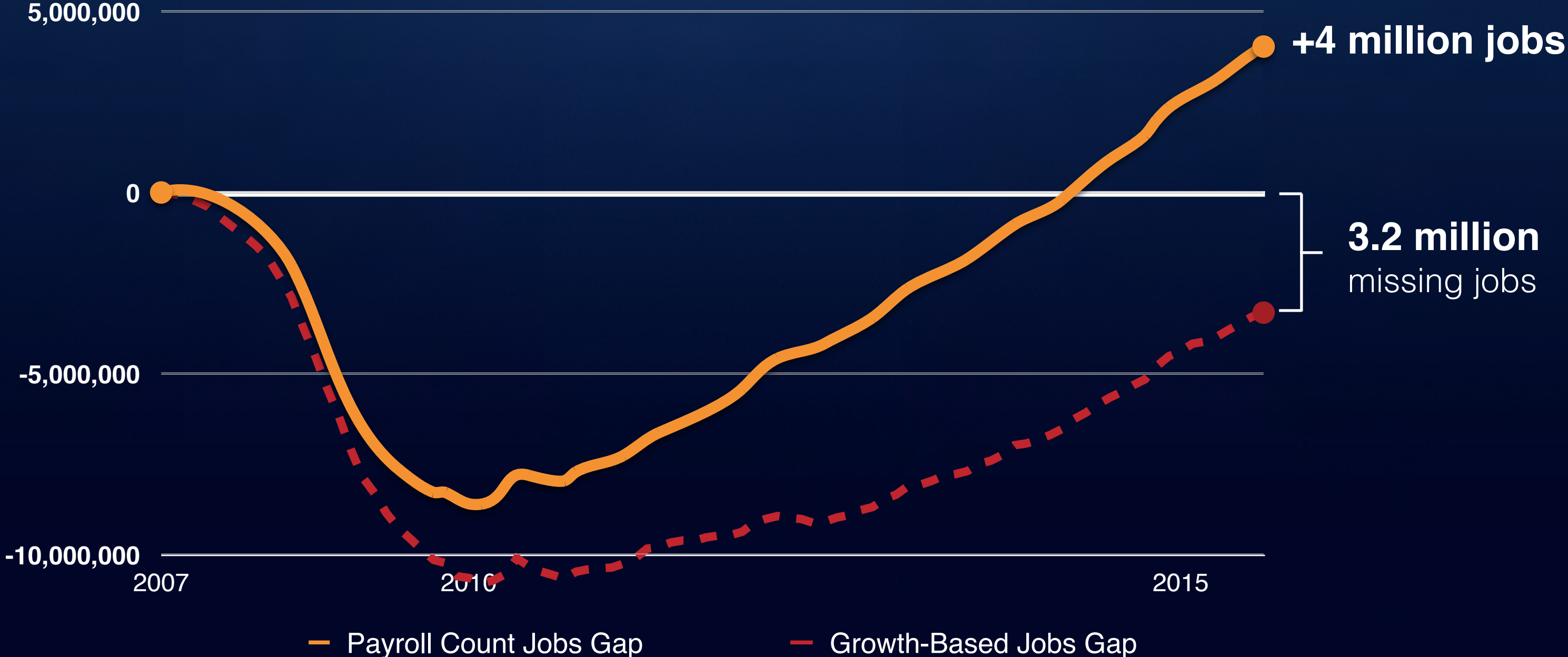
# METRO TRADE

## Regional Economies and the Role of Freight Transportation

@BrookingsMetro  
@adietomer

# Better Growth: We Need More Jobs

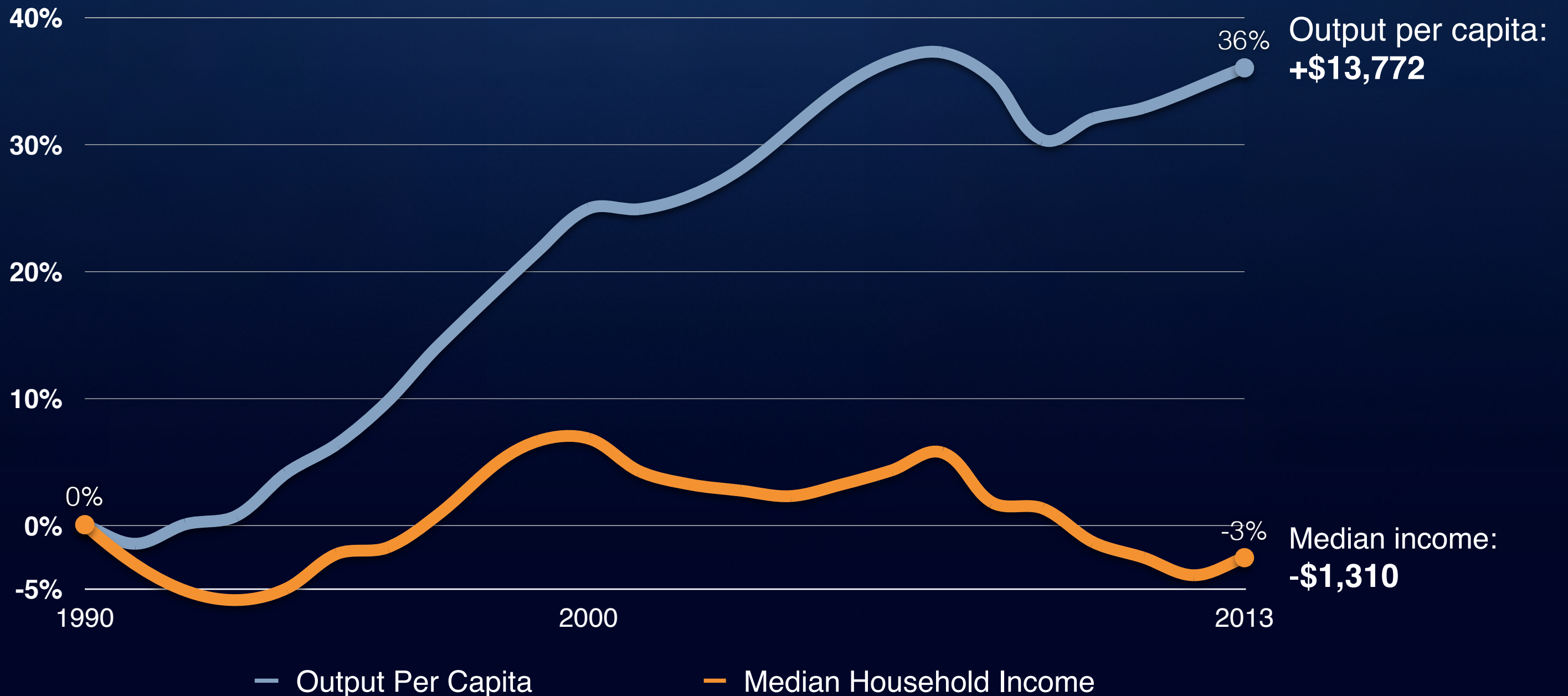
## Post-Recession U.S. Jobs Gap Since start of recession



Source: The Hamilton Project analysis of Congressional Budget Office and Current Employment Statistics data.

# Better Incomes: We Need Rising Wealth for the Economy and for People

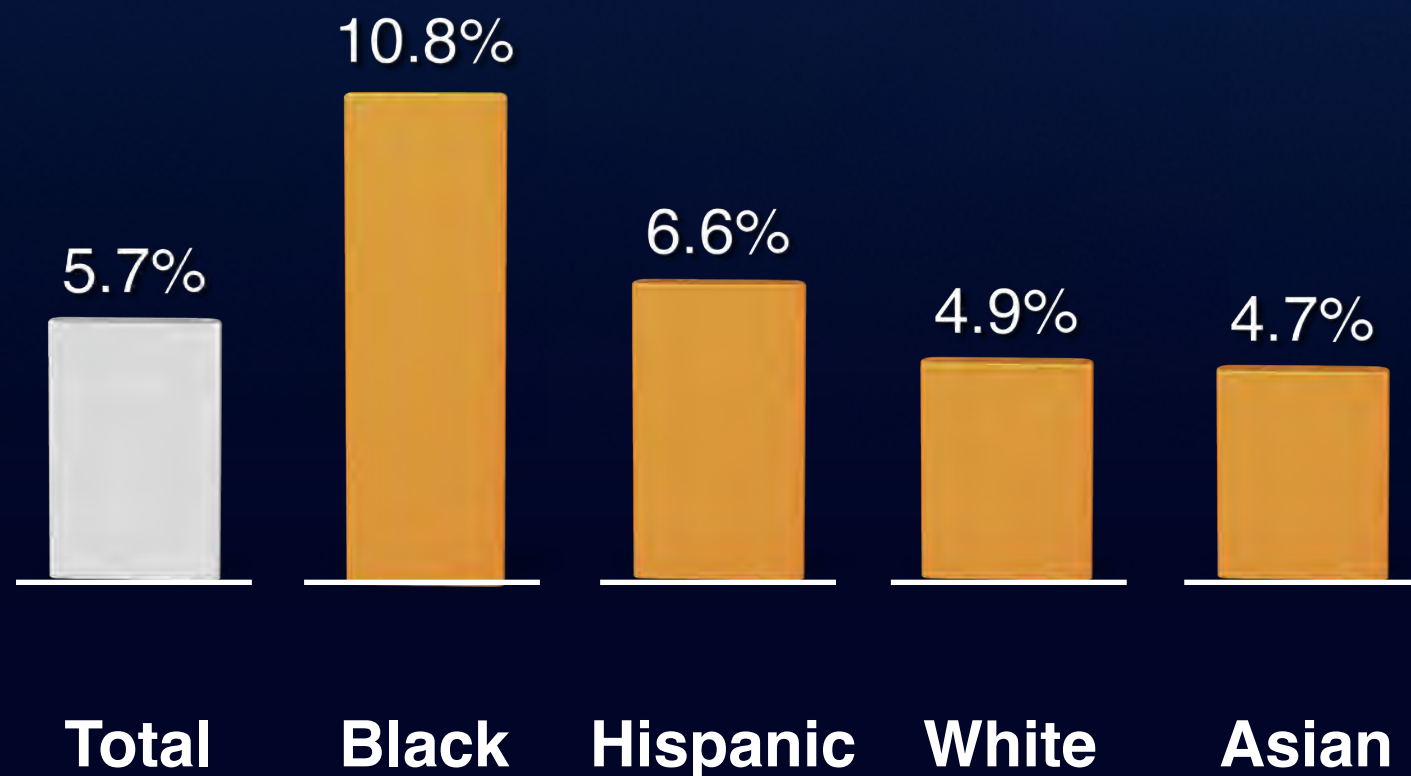
## Change in Output Per Capita and Median Household Income Since 1990



# Greater Inclusion: We Need to Extend Opportunity

## Unemployment Rate by Race

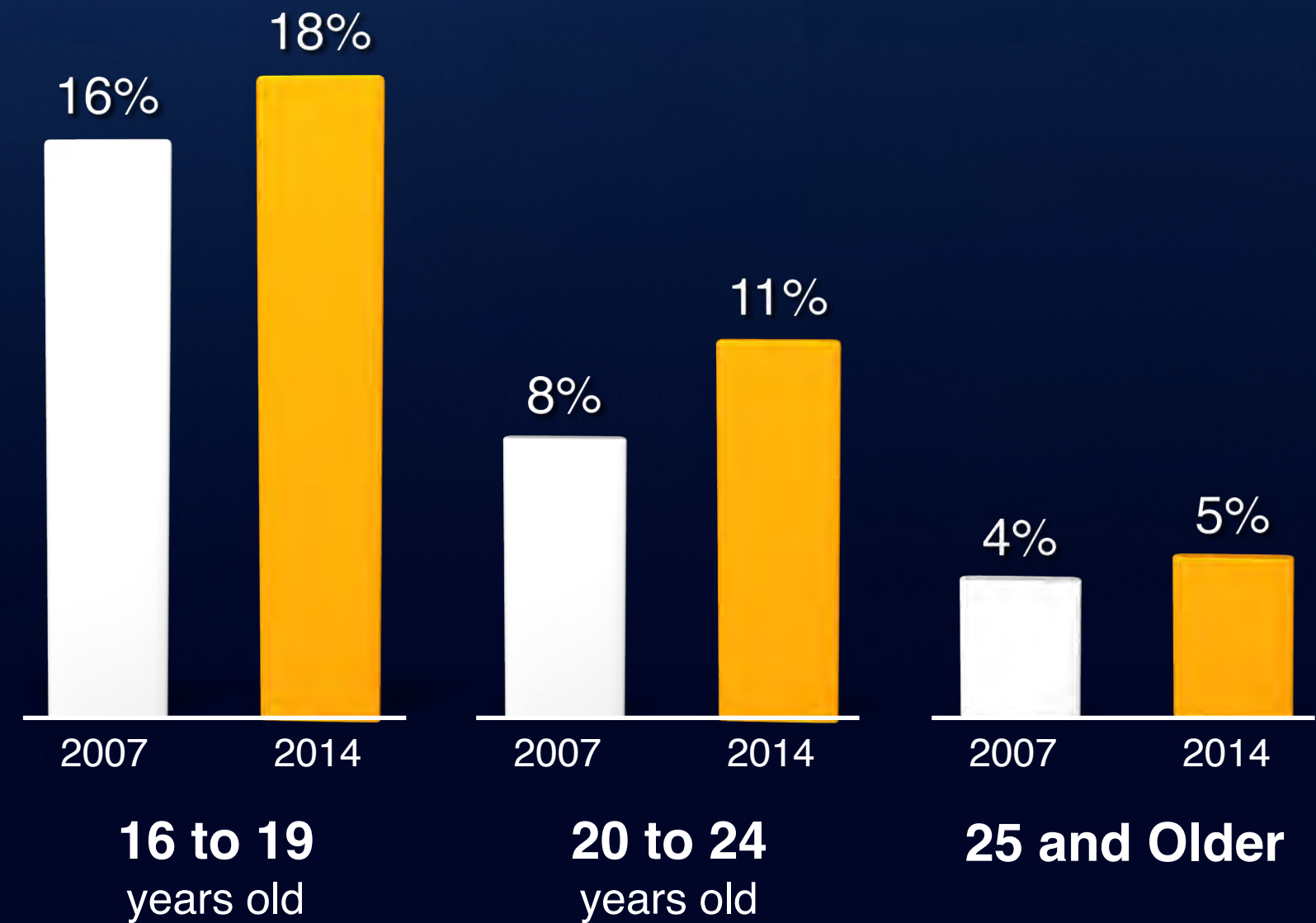
2014Q4



Source: Current Population Survey.

## Unemployment Rate by Age

Recession through 2014Q4



Source: Current Population Survey.

1 2 3

**1** To prosper, public leaders are beginning to recognize the importance of trade

1 2 3

2

Trade prioritization requires a new perspective on freight trends

1 2 3

**3** What's the future of American freight planning and investment?

1 2 3

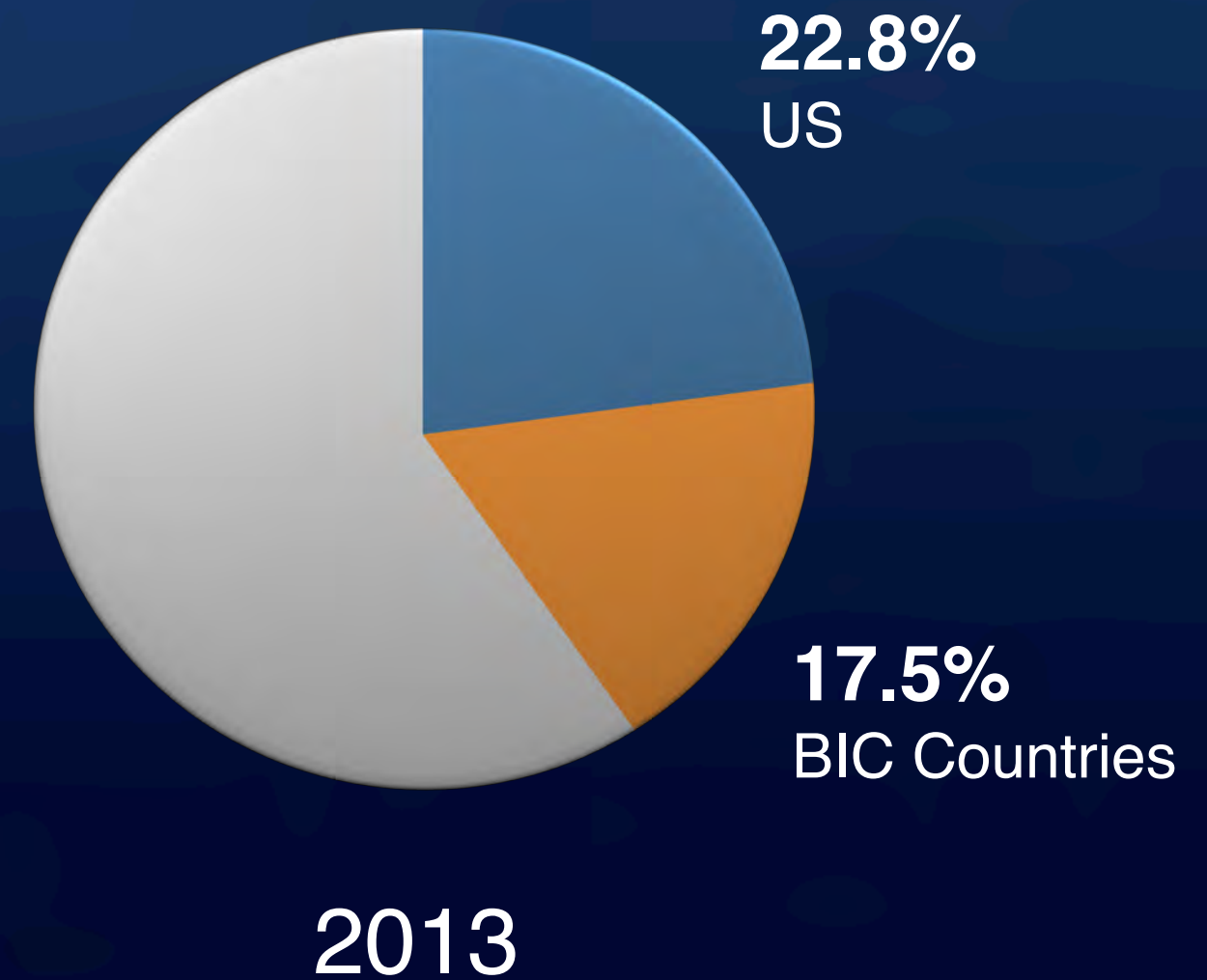
**1** To prosper, public leaders are beginning to recognize the importance of trade



# Global Competition Is Fierce, with Growth Shifting Away from the United States



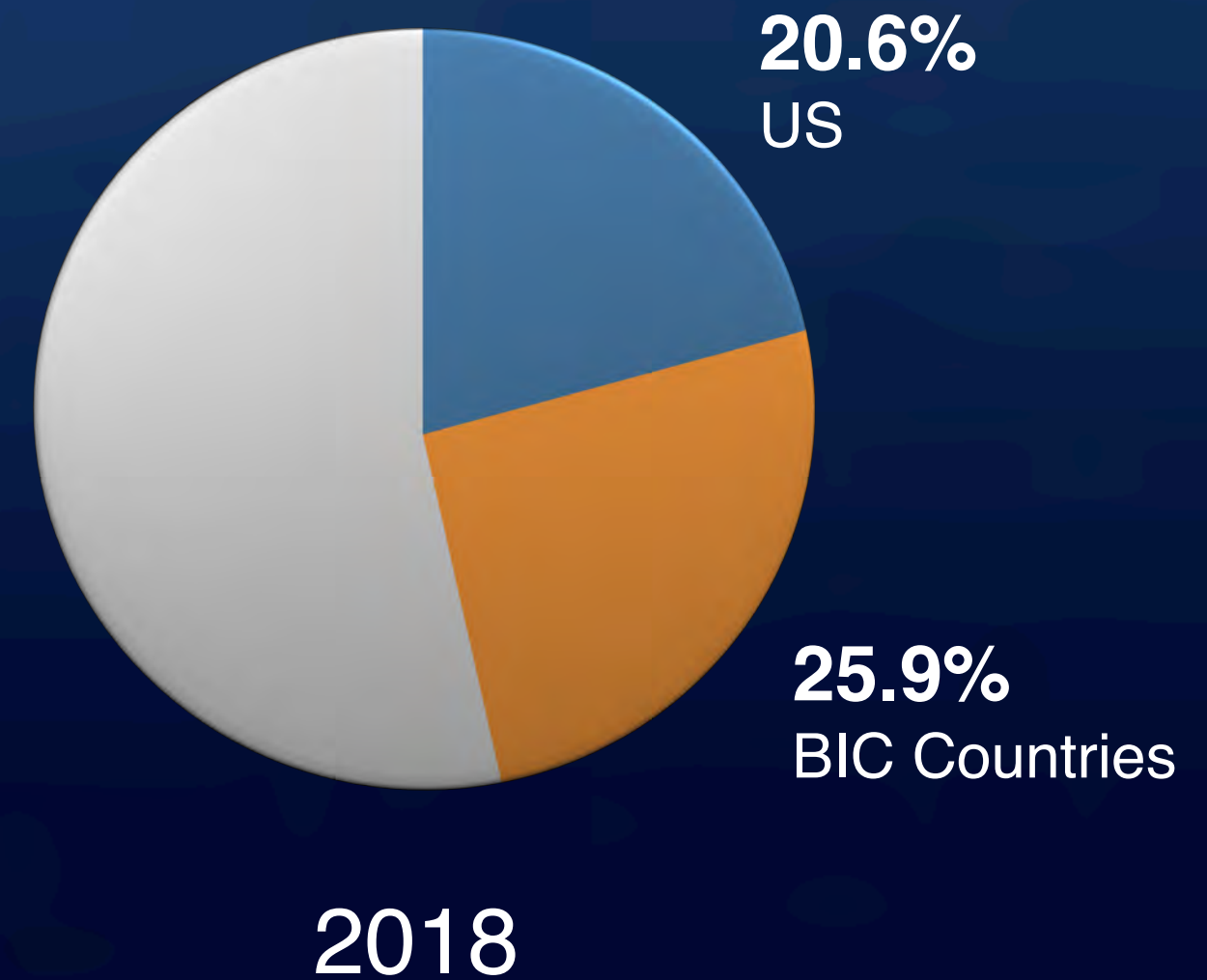
## Global Economic Growth



# Global Competition Is Fierce, with Growth Shifting Away from the United States



## Global Economic Growth



# Rapid Urbanization Is Fueling the Growth of a Global Middle Class

Since 1950 the global urban population has tripled in size, and will reach 5 billion by 2030



Source: United Nations, World Urbanization Prospects, 2011

# \$21 trillion

global middle class consumption in 2000

Source: OECD

# Rapid Urbanization Is Fueling the Growth of a Global Middle Class

Since 1950 the global urban population has tripled in size, and will reach 5 billion by 2030



Source: United Nations, World Urbanization Prospects, 2011

# \$31 trillion

global middle class consumption in 2020

Source: OECD

# Second, Technological Advances Are Rapidly Disrupting Markets

McKinsey & Company:

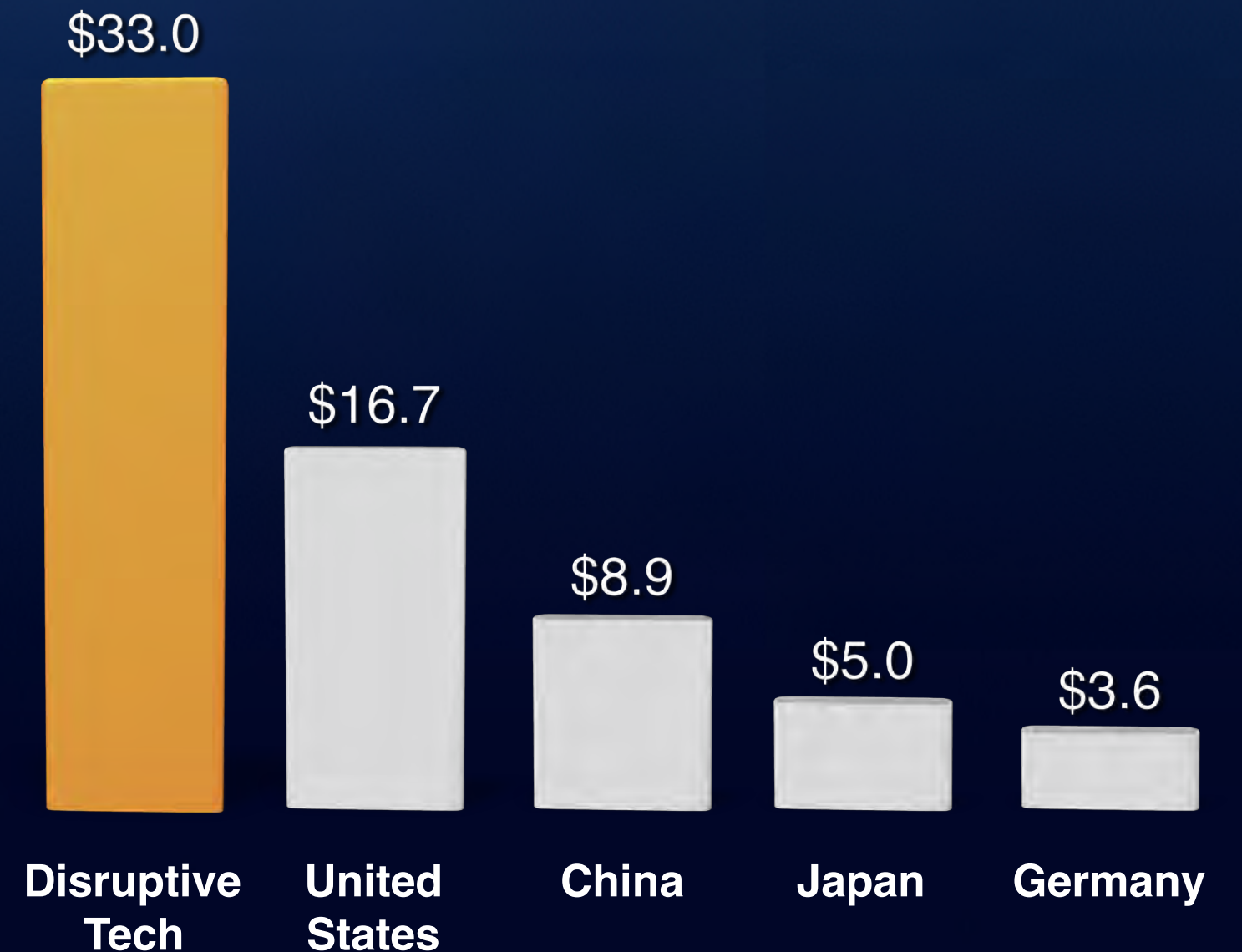
# \$33 trillion /YEAR

maximum estimated global economic impact  
of **12** technology platforms through 2025



## Annual Economic Output

*In trillions of dollars, 2013*



# Traded Sectors Are the Engines of Local and National Economic Growth



# Advanced Industries

## Manufacturing

35



Pharmaceuticals



Aerospace



Motor Vehicles & Parts



Medical Equipment

## Energy

3



Oil & Gas Extraction



Electricity Generation

## Services

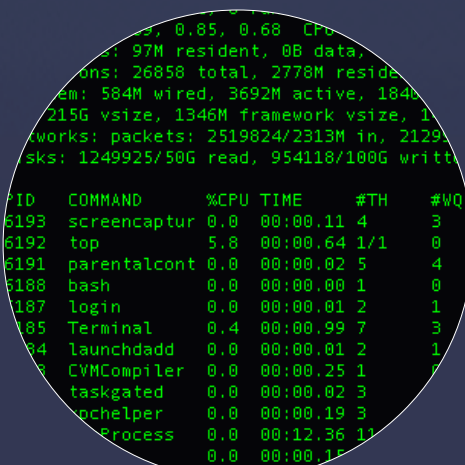
12



Telecommunications



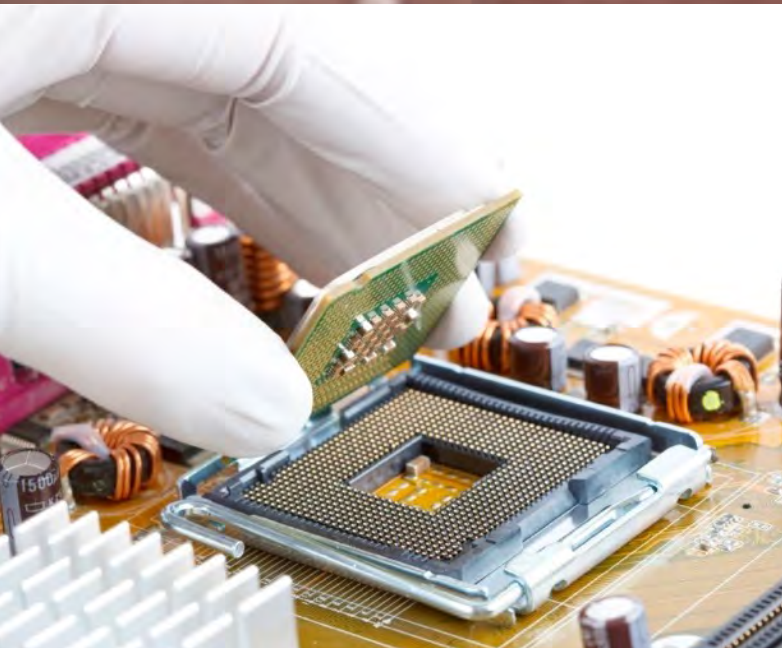
R&D Consulting Services



Software

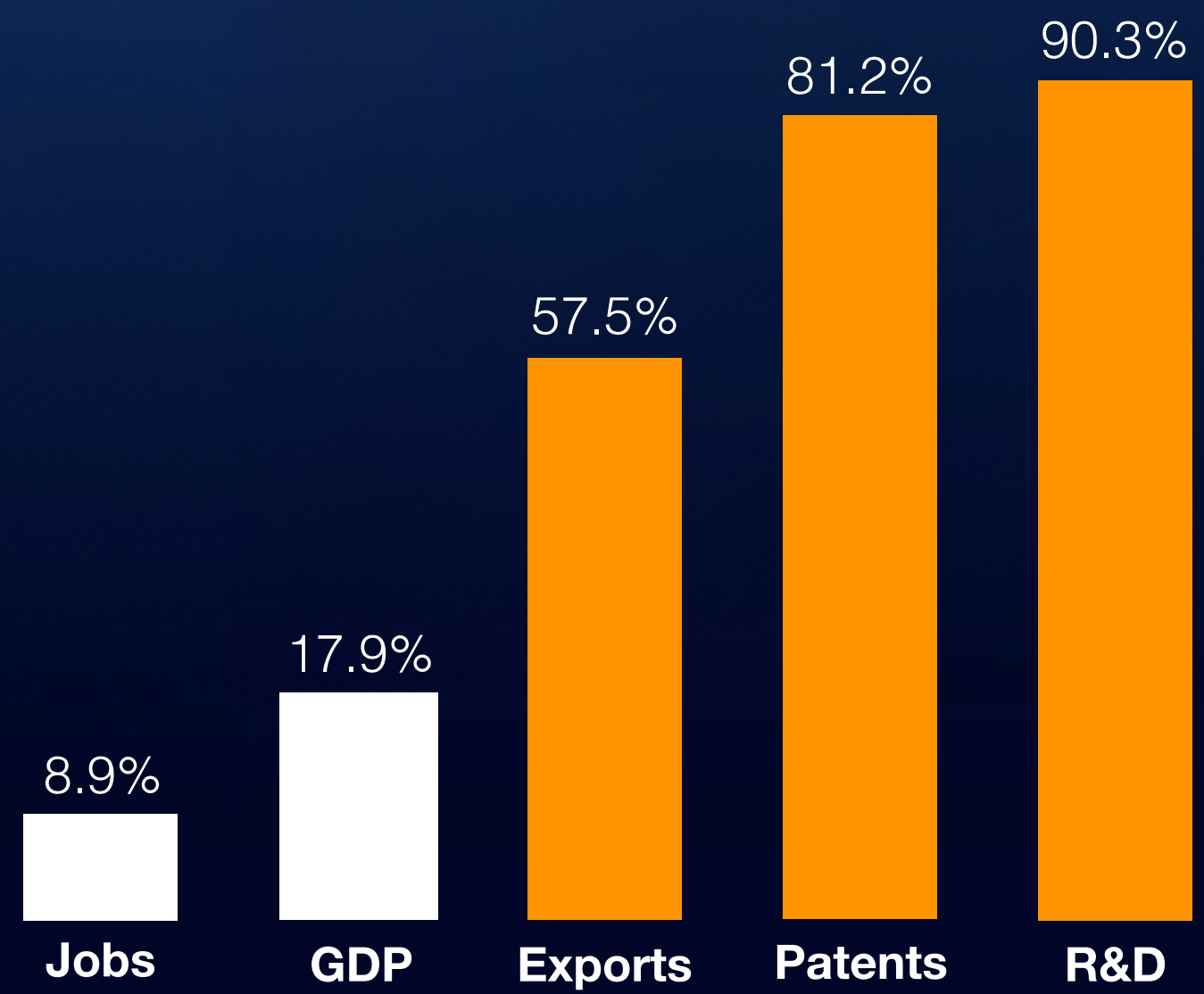


Computer Systems Design



# Advanced industries drive exports and innovation

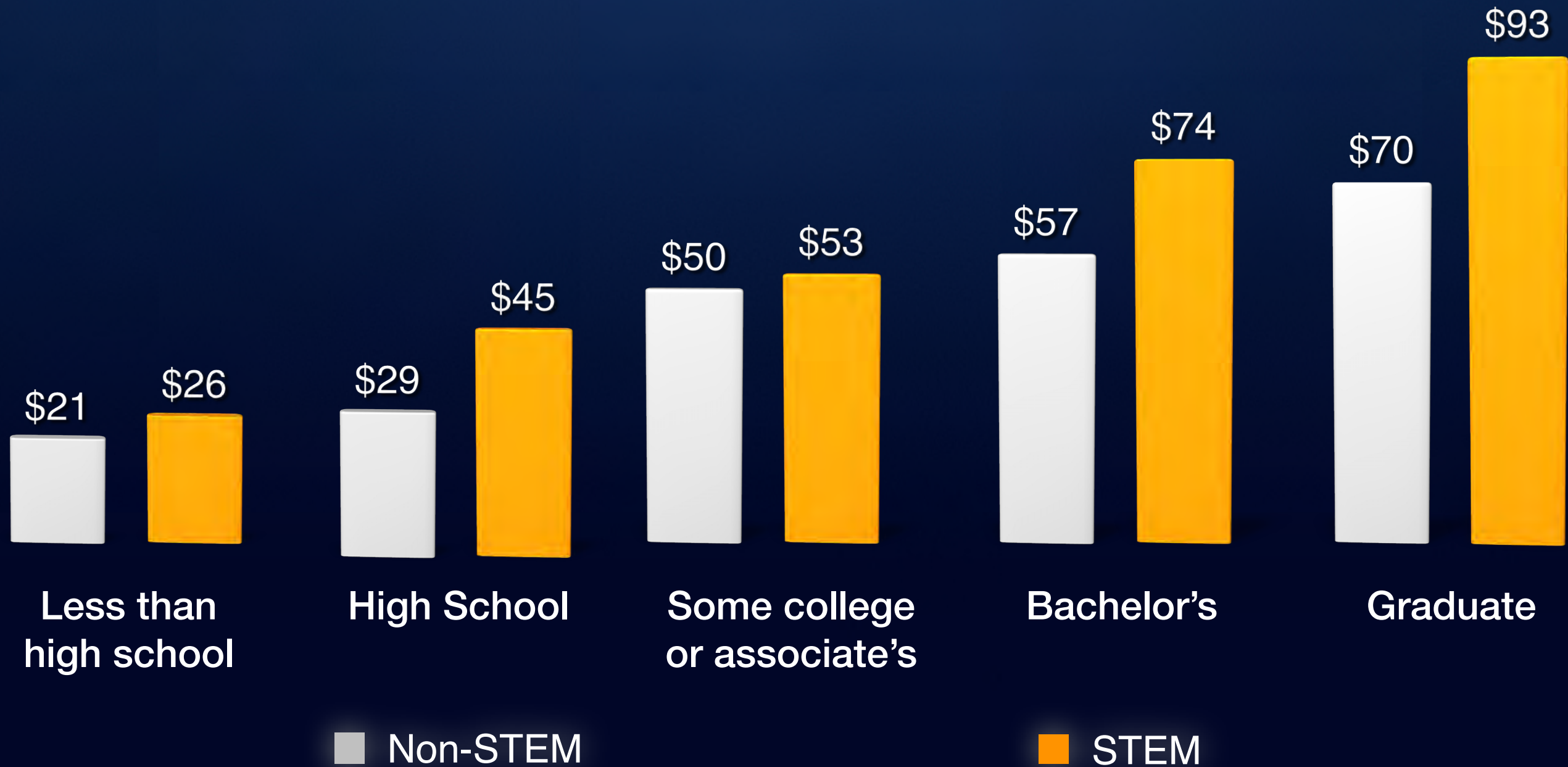
*Share of U.S. Totals*





# STEM Jobs Offer a Hefty Wage Premium Over Jobs in Other Fields

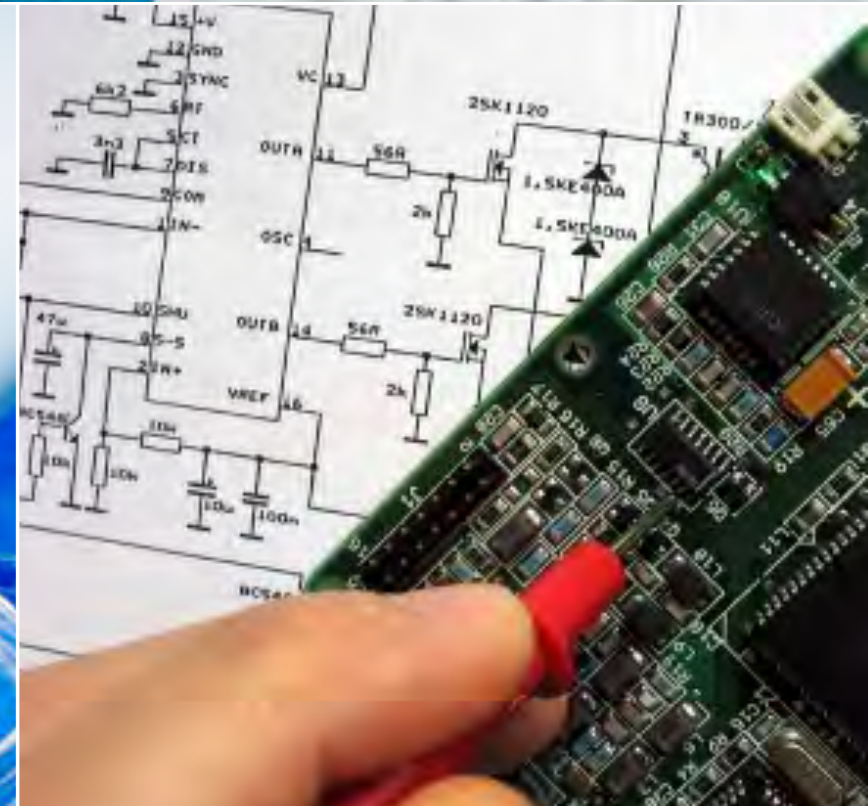
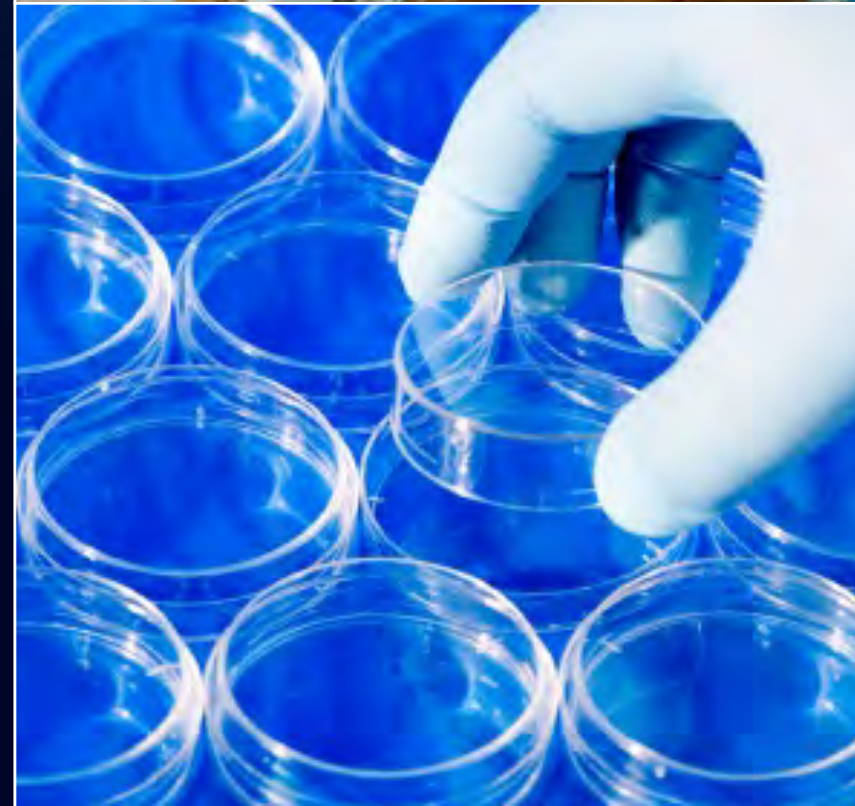
STEM Job Wage Premium by Degree Attainment  
*In thousands*



# All Goods Producing Industries—Not Just AI's—Still Matter

22%

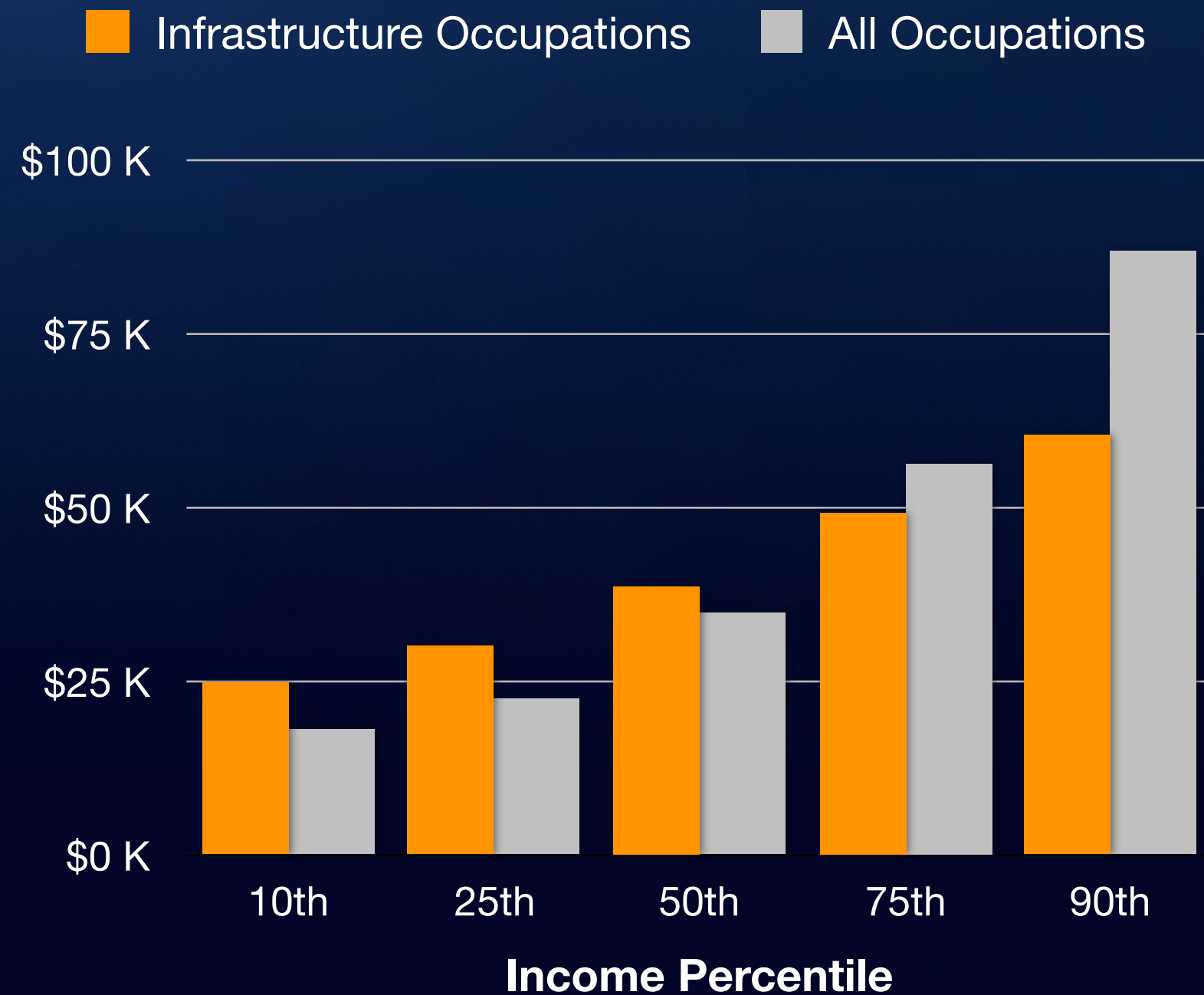
share of economic output in goods producing industries



# Trade-Related Infrastructure Jobs Are an Equity Driver

6,600,000

trade-related infrastructure jobs



1 2 3

2

Trade prioritization requires  
a new perspective on freight  
trends

# What Affects Trading Relationships?



**Population**



**Complementary Industries**

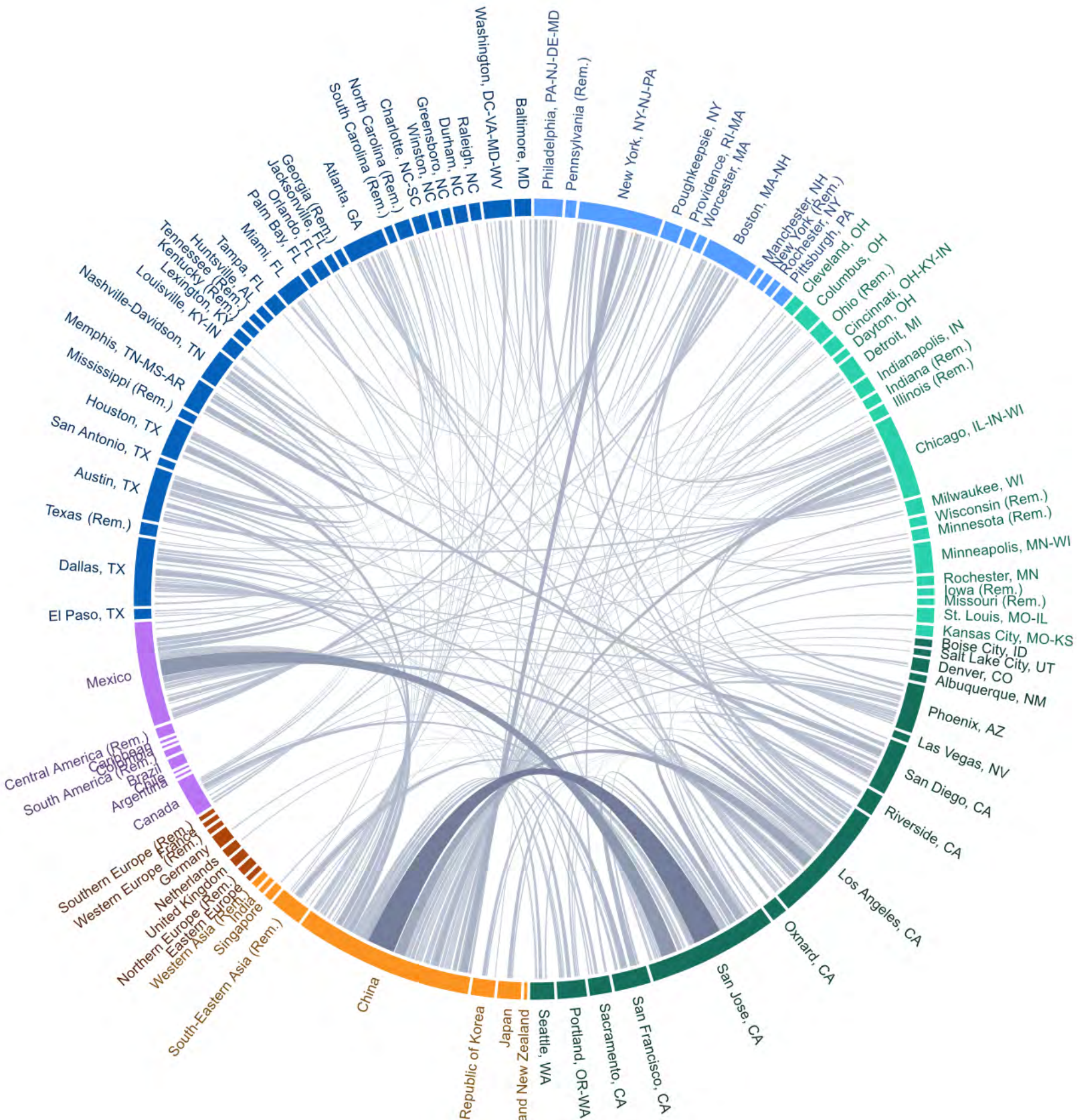


**Logistics Workforce**



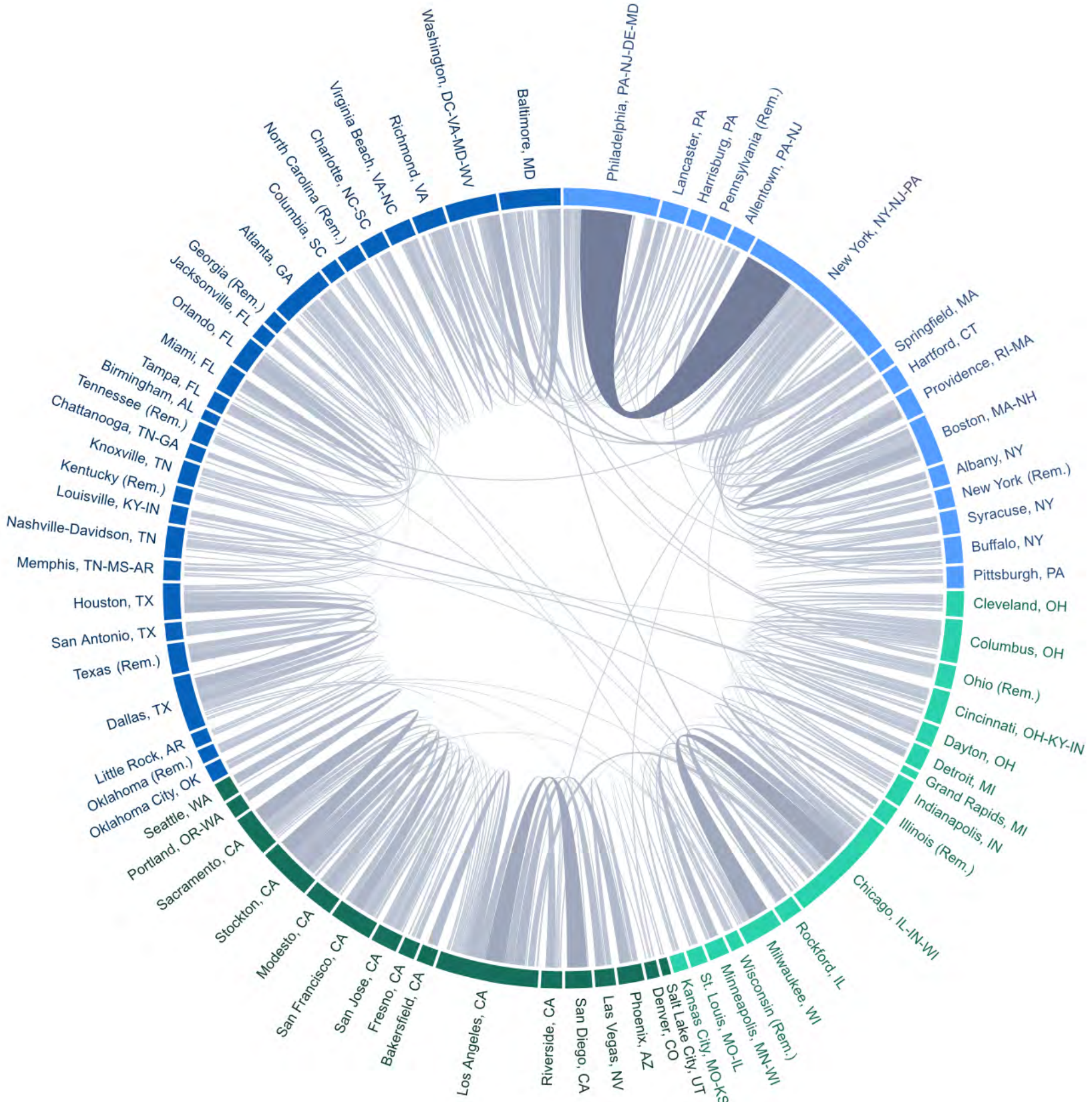
**Distance between Markets**

# Electronics trade demonstrates long-distance flows



Source: Brookings Institution

# Meanwhile, mixed freight travels shorter distances



Source: Brookings Institution

**77 percent**

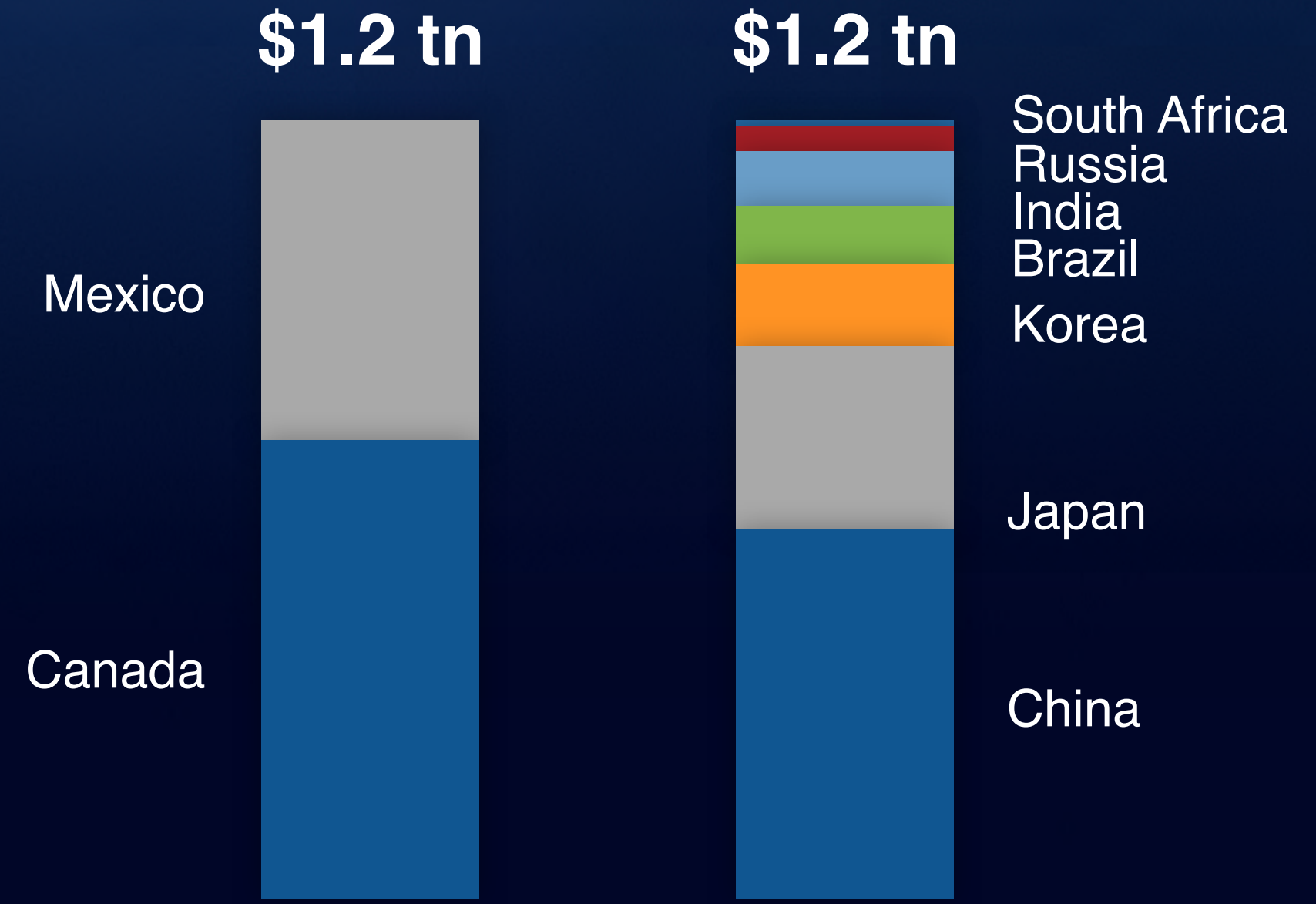
share of trade crossing state borders



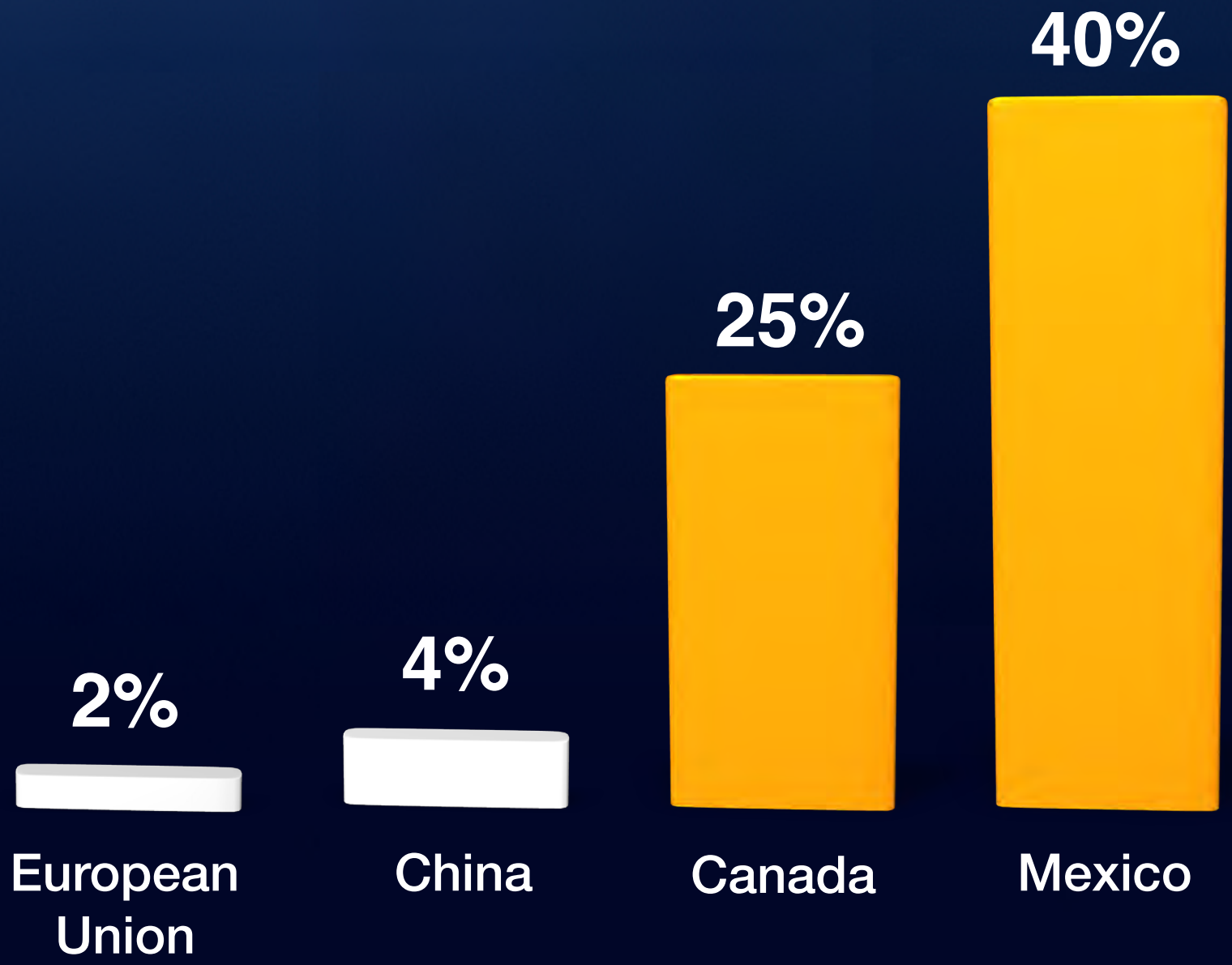


# U.S. International Trade

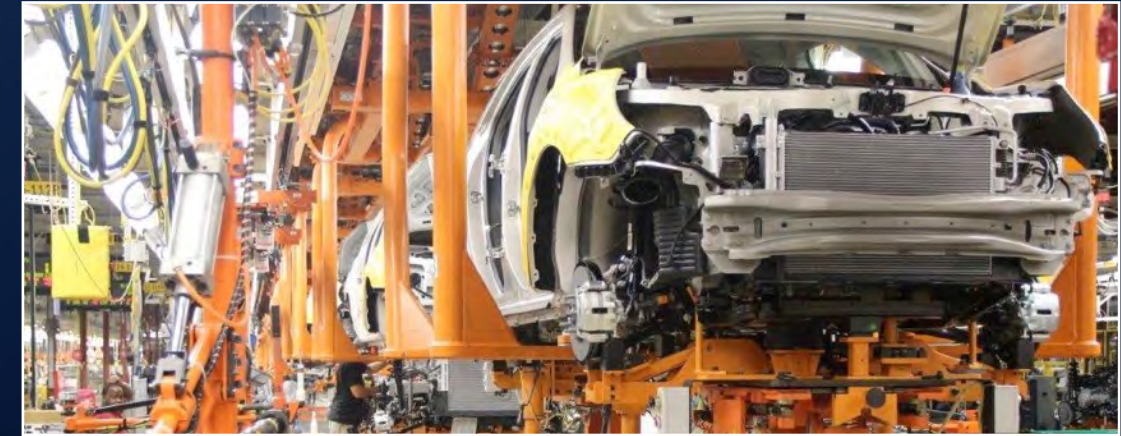
*NAFTA vs. BRICS, Japan, Korea, 2012*



# Share of U.S. Value in Imports to the United States



# Automotive



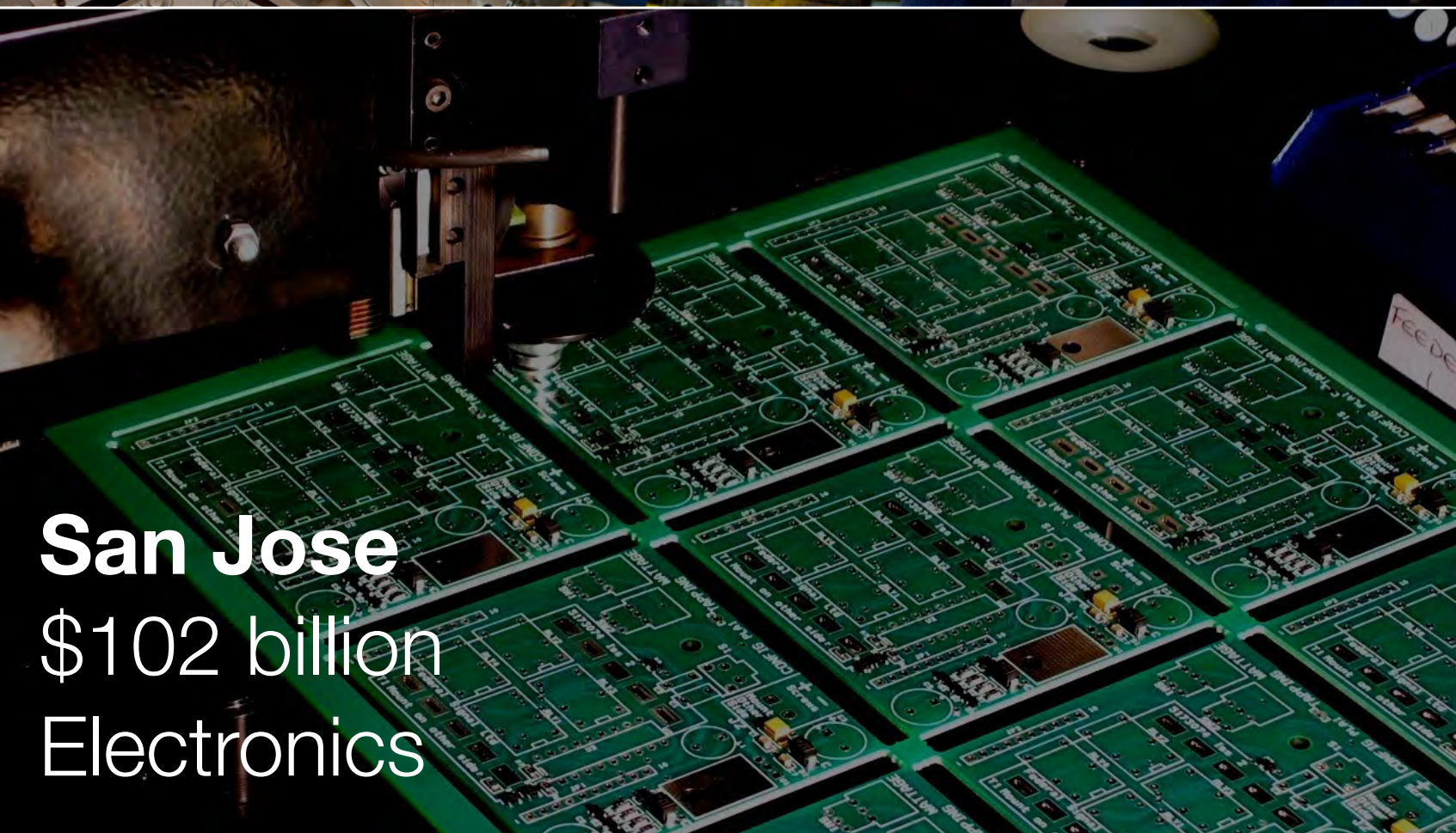
Source: Brookings analysis of EDR data; values for 2010



**Detroit**  
\$111 billion  
Transportation Equipment



**Minneapolis**  
\$24 billion  
Precision Instruments



**San Jose**  
\$102 billion  
Electronics



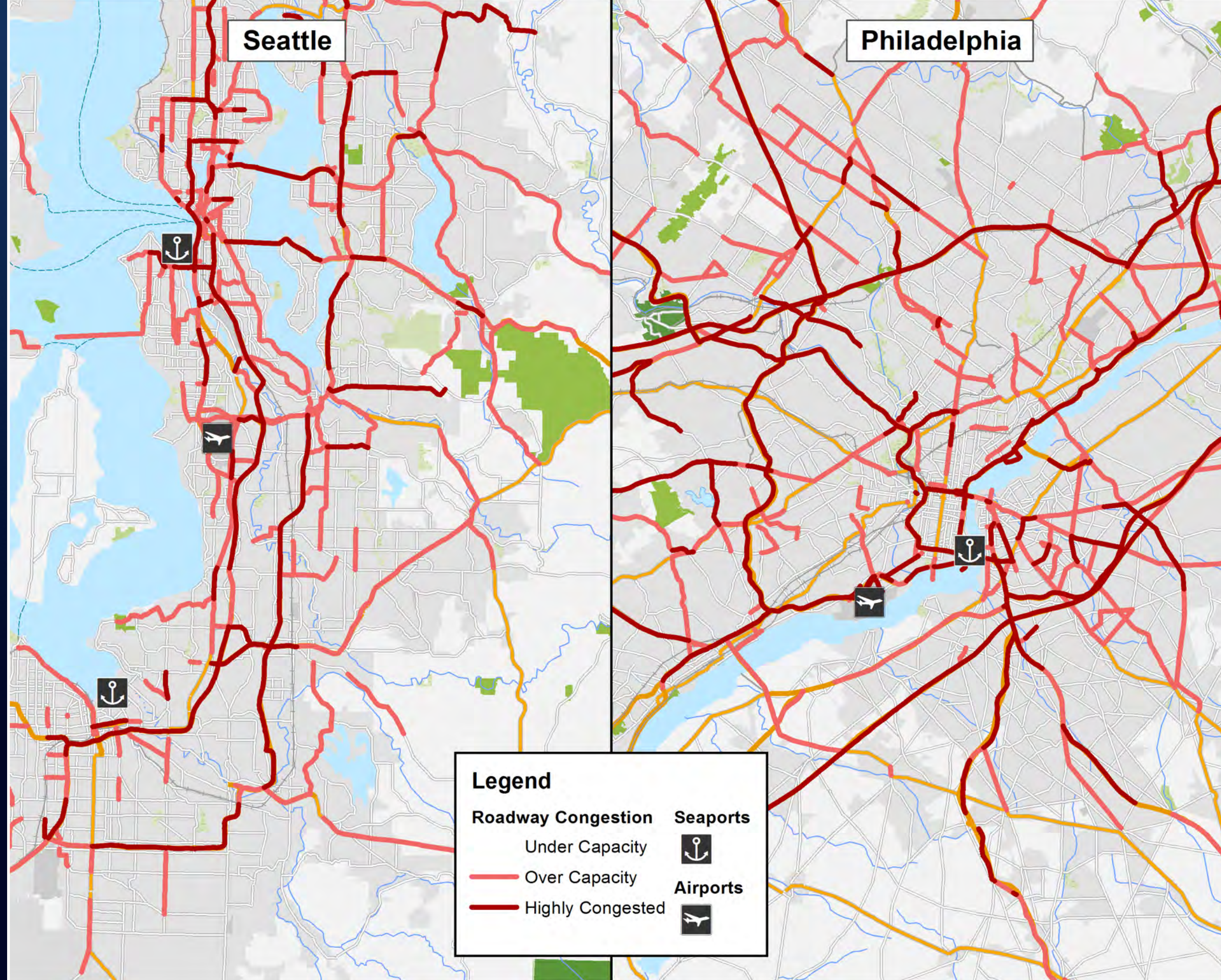
**Houston**  
\$125 billion  
Chemicals + Plastics

# 80 percent

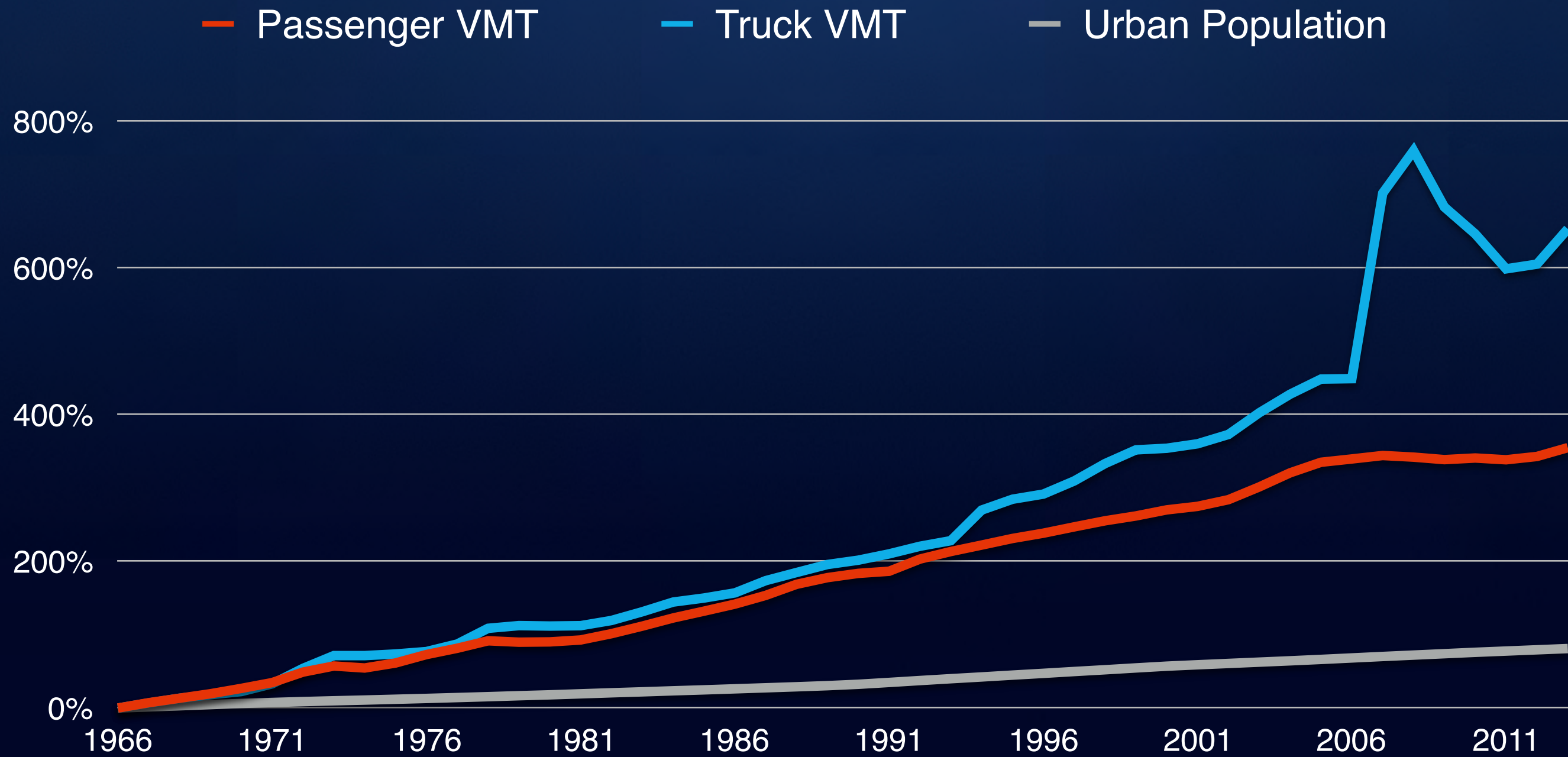
traded value starts or ends in large metro areas



Congestion is especially bad in metro cores, limiting logistical efficiencies for key freight assets



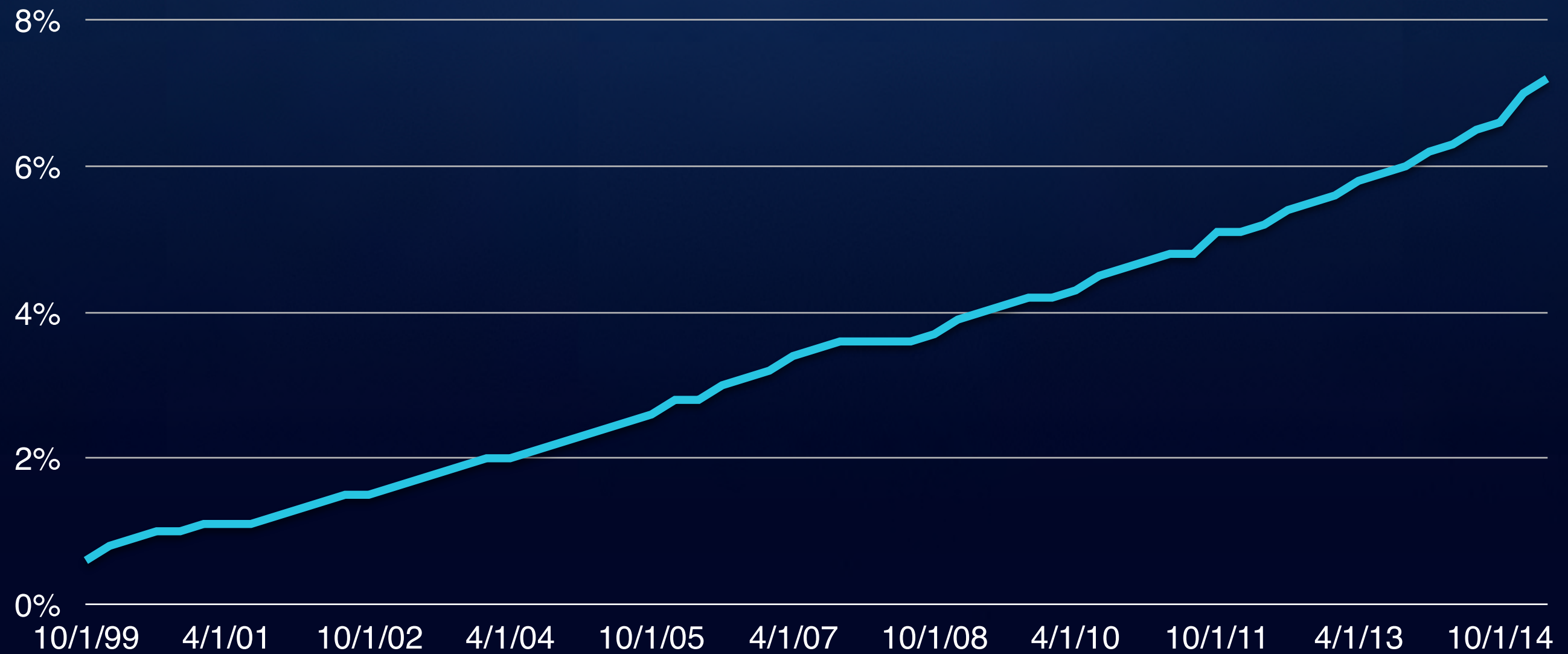
# Urban Trucking Has Far Outpaced Passenger Vehicles and Population





# E-commerce Will Only Intensify Trucking Volumes

## E-Commerce as Share of All Retail Sales



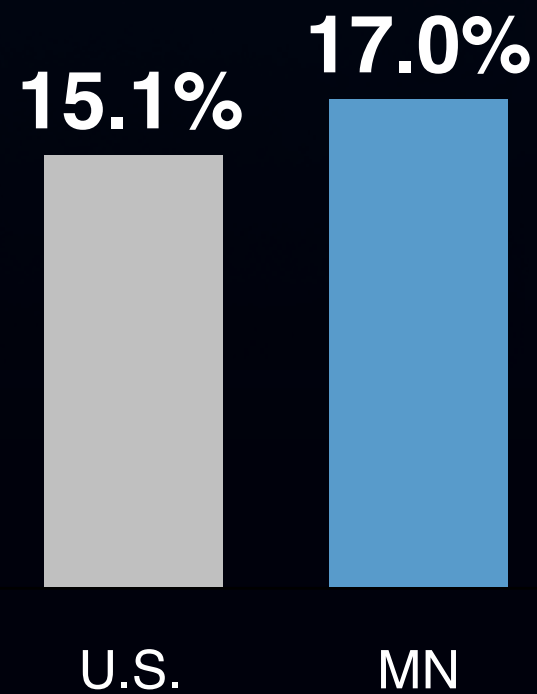
How does this play-out in  
Minnesota?

# MINNESOTA FREIGHT DASHBOARD

## Total Goods Trade

**\$393.0 b**

## International Trade Share

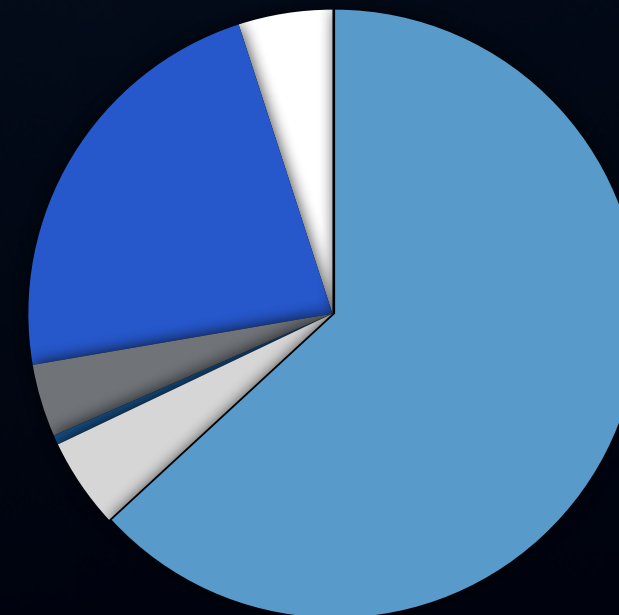


## Top Trading Partners

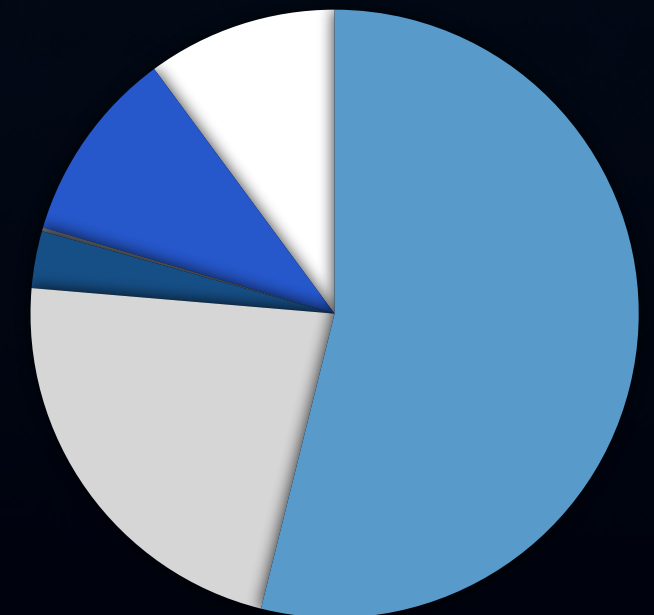
1	Minneapolis-St. Paul	\$28.5
2	Non-Metro Minnesota	\$26.5
3	Chicago	\$19.2
4	China	\$13.7
5	Non-Metro Wisconsin	\$11.0
6	Canada	\$10.9
7	Non-Metro Iowa	\$10.7
8	Mexico	\$8.0
9	Los Angeles	\$7.3
10	Rochester (MN)	\$7.1
<b>Top 10 Totals</b>		<b>\$142.9</b>

## Transportation Modes

### Value

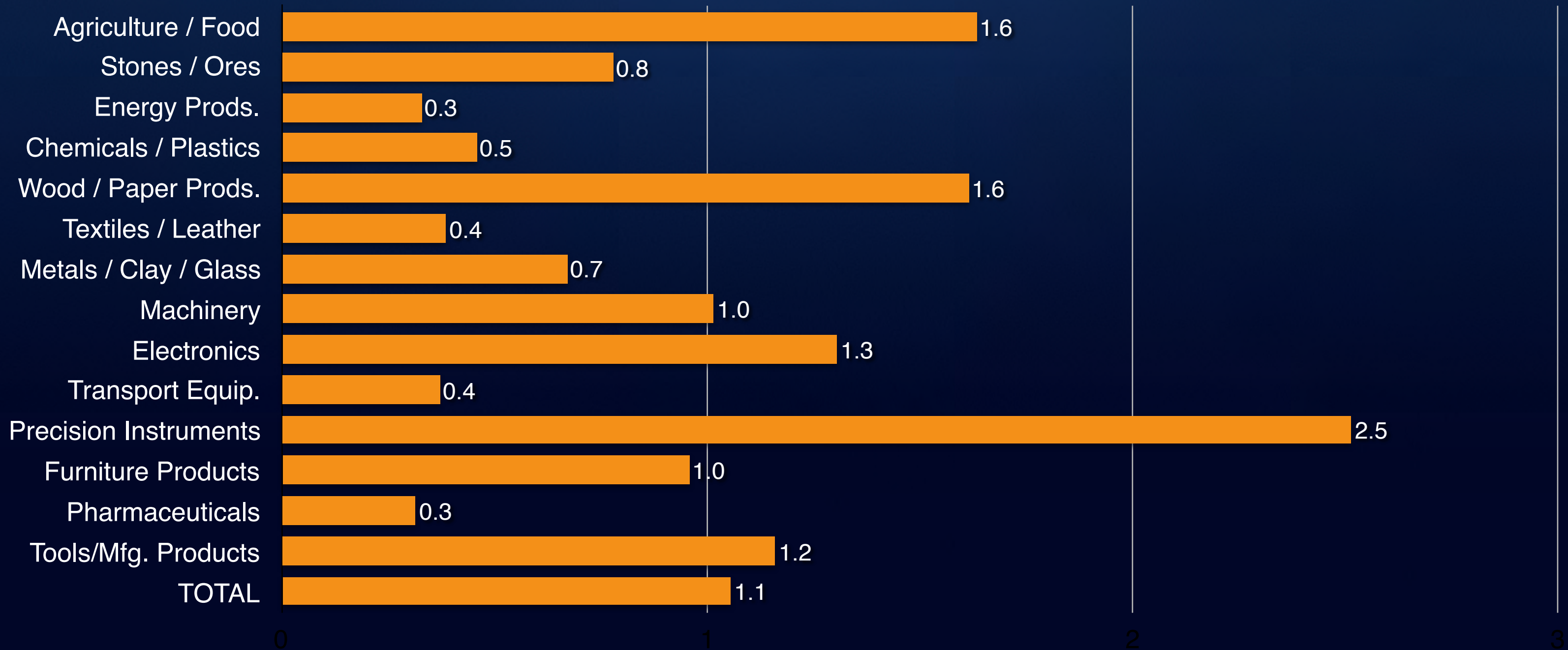


### Weight



# Minnesota is an average freight-producing state ... but with clear industrial strengths

## Industrial Location Quotients







1 2 3

**3** What's the future of American freight planning and investment?

**2012**

# A Structural Change to the Federal Budget

**2023**

**57.4%**  
mandatory  
spending

**61.6%**  
mandatory  
spending

**6.3%**  
interest

**14.4%**  
interest

**36.3%**  
discretionary  
spending

INFRASTRUCTURE  
EDUCATION  
HOUSING

DEFENSE  
R&D

**24.0%**  
discretionary  
spending



# Federal and State Policies Sidestep Economic Priorities

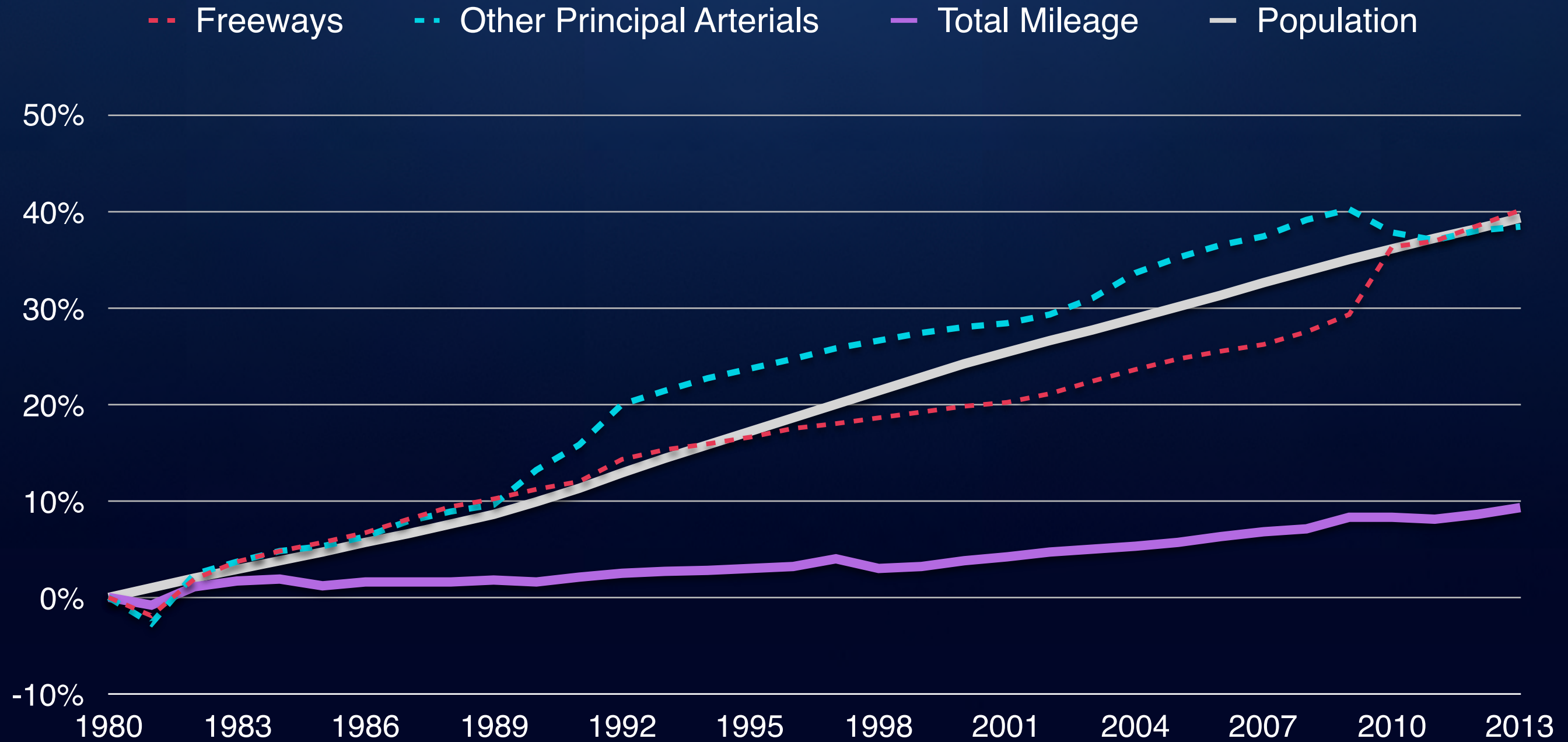


**Lack of Project  
Accountability**

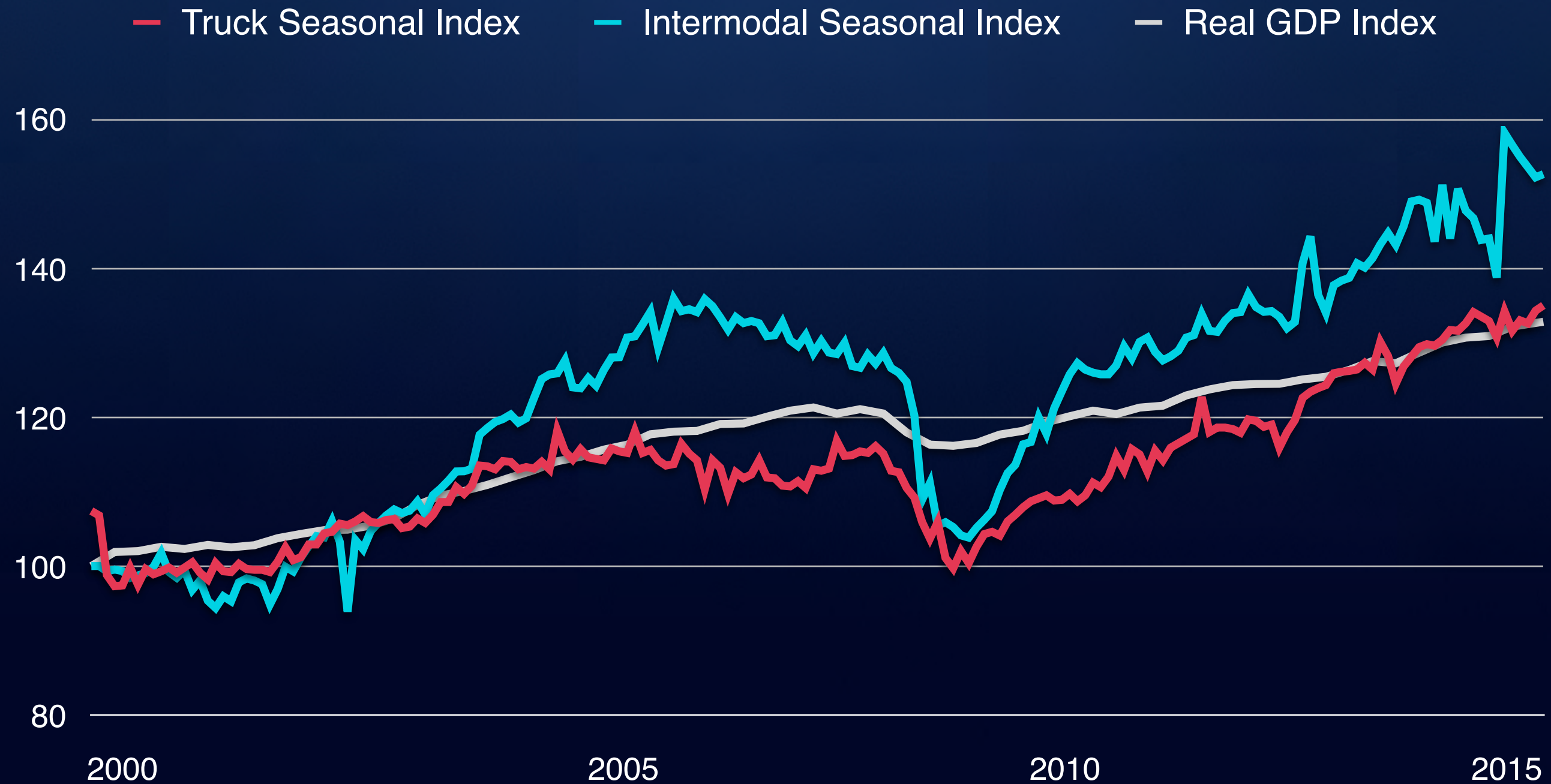


**Ambiguous  
Metrics**

# Lane Mileage Has Not Kept Up with Population



# Intermodal Volumes Grew Faster Than All Other Modes





# PORTMIAMI

## Deep Dredge Project

\$220 million project, **funded solely through state & local resources**



## Port of Miami Tunnel

Innovative **public-private partnership**



## Intermodal Rail Reconstruction Project

Financed with competitively-awarded federal funds to a **partnership of the port, county & railway**



How do we get more done?

# We need a new federalist freight policy framework:

## FEDERAL



Maintain current assets while prioritizing investment in congested places

## STATE



Form stronger partnerships with neighboring states and local metro areas

## LOCAL



Innovate land uses to grow industry and assist first- and last-mile freight

# METRO TRADE

## Regional Economies and the Role of Freight Transportation

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