

# The North American Automobile Industry

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FTA Revenue Estimating Conference  
Hilton Springfield, Springfield, IL

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# The Center for Automotive Research conducts leading-edge research that impacts the future of the global automotive industry.

- Automotive industry contract research and service organization
- CAR is a standalone Non-Profit 501(c)3 since 2003
- Based in Ann Arbor, MI – 30+ Employees
- CAR forecasts industry trends, advises on public policy, and sponsors multi-stakeholder communication forums



# CAR Research



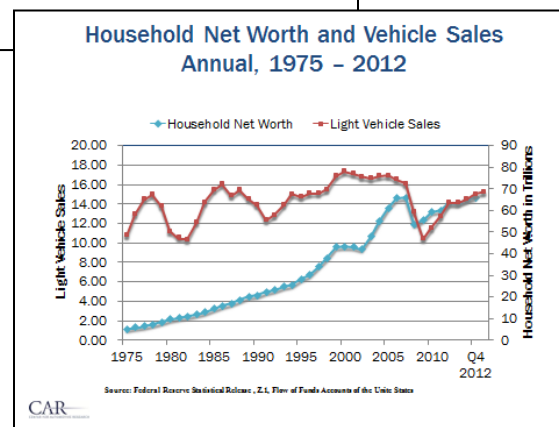
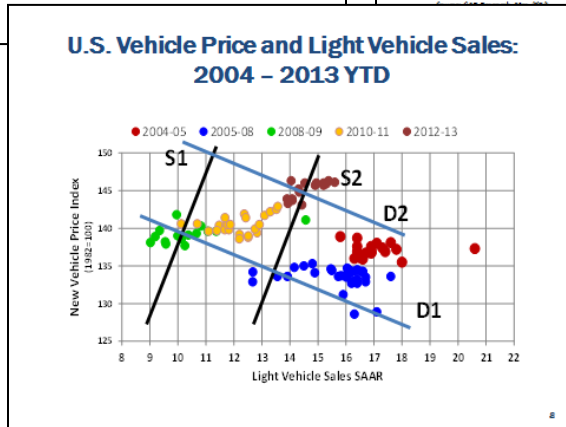
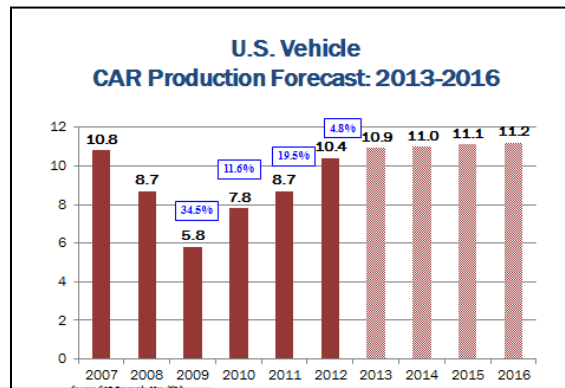
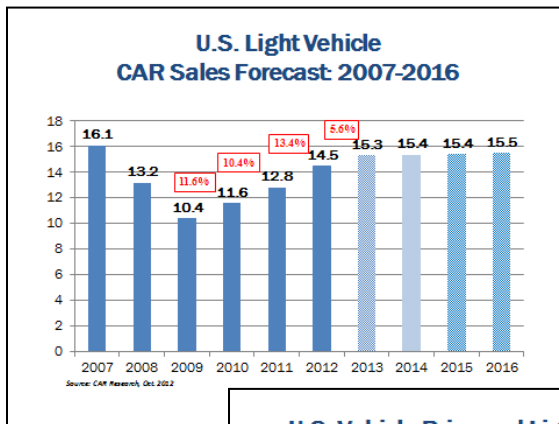
CAR Research and Analysis includes industry impact, economics and forecasting:

- Manufacturing, Engineering and Technology
- Transportation Systems Analysis
- Industry & Labor Analysis Group
- Sustainability & Economic Development Strategies

# Automotive Industry Economic Analysis

## Long Range Sales, Production, Employment Outlook

*CAR Research and Analysis focuses on industry impact, economics and forecasting*



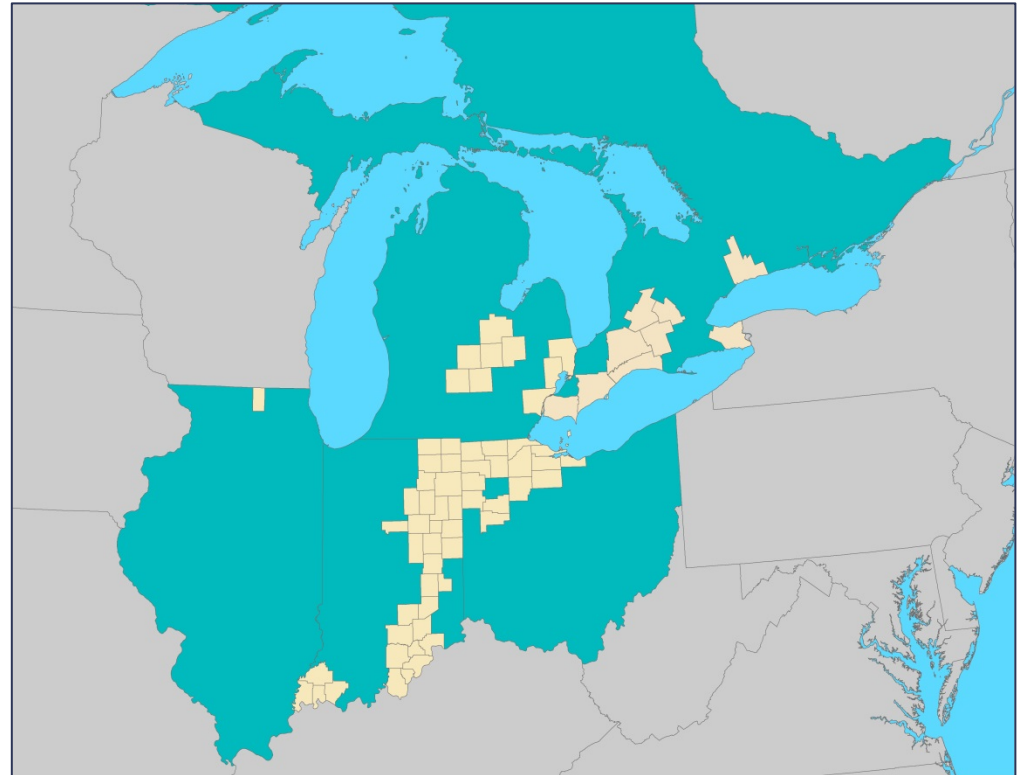
# CAR Research & Contribution Examples:

- Collaboration & Partnership Development
- OEM & Supplier Relationships
- Automotive Industry Economics
- Forecasting; Sales, Production, Employment
- Manufacturer Investment Analysis
- National Academies of Science – National Research Council (NRC), Fuel Economy Technologies & Strategies
- Supply Base & Supply Chain
- Economic Impact Assessments
- Applied Research & Co-Development
- Supplier Benchmarking
- Product Timing Charts
- Tooling / Materials & Lightweighting
- Safety Regulations
- Bio-Materials & Green Manufacturing
- CAR's Book of Deals, N.A. Manufacturing Facilities
- Economic Development
- 50 State Tax Contributions
- Automaker & Supplier Job Multipliers
- Automotive Communities Partnership
- Southern Automotive Research Agenda
- Connected Vehicle & ITS, HMI, Driver Distraction
- Autonomous Vehicles
- Consumer Perceptions of Connected Vehicle Technologies
- Mobile Computing Applications
- Alternative Powertrains and Electrification
- Workforce, Skills Gap, Education and policies
- Employment & Labor Statistics

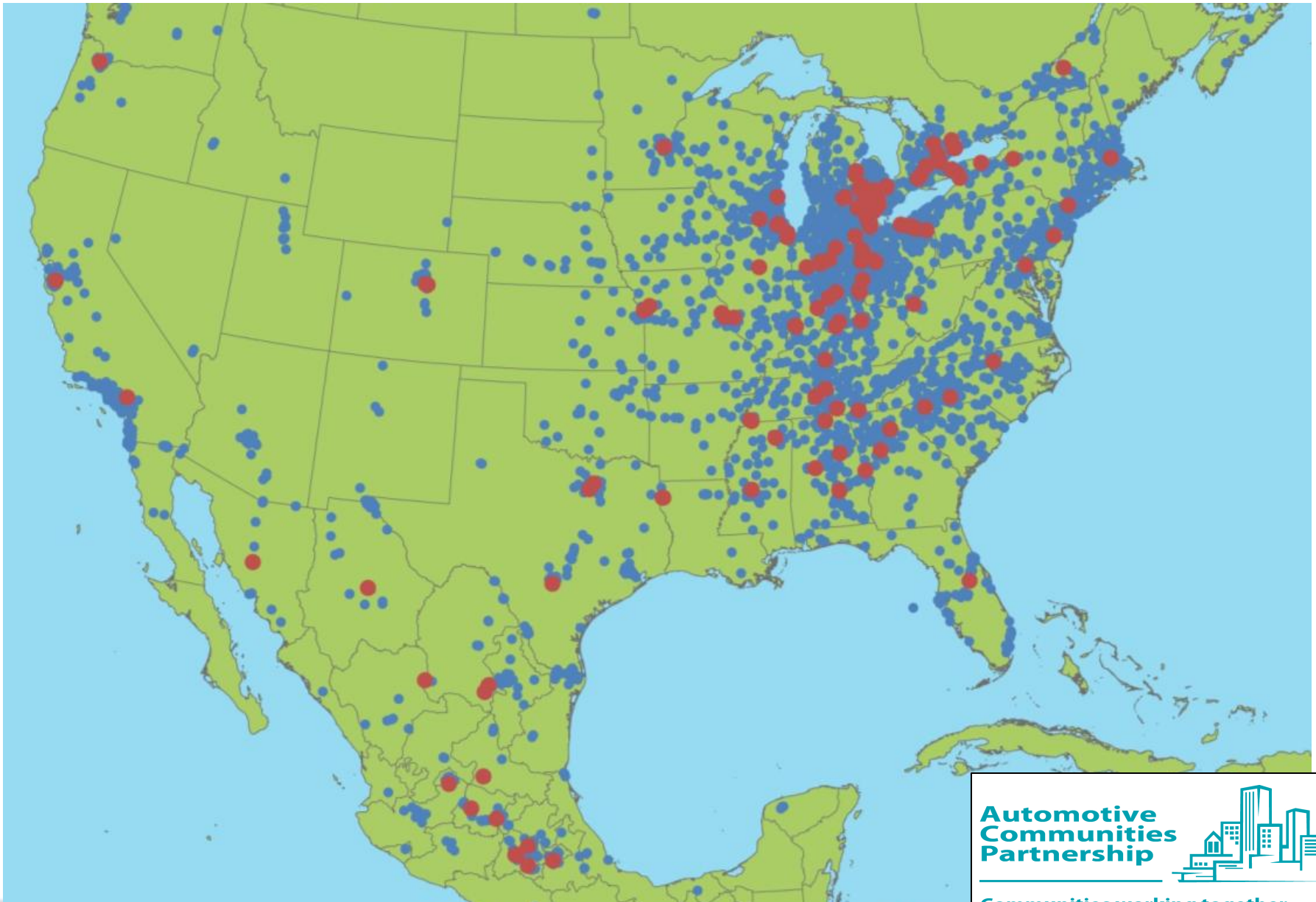
# The Automotive Communities Partnership

Companies and communities working on enhancing the automotive endowment

- Widespread participation from Ontario to Illinois, with diversity of participants
  - 35 regional ED organizations—representing 50 counties
  - 7 utility companies, 5 automobile companies (DCX, Honda, GM, Ford, Toyota), numerous suppliers (ArvinMeritor, Dana, Denso, JCI, etc.)
- Specialized analyses
- Objective advice
- Best practices
- Forum for topical issues and actions
- Providing communities with much needed industry information
- Collaborating on a common mission



# 2012 North American Automaker & Part Supplier Footprint



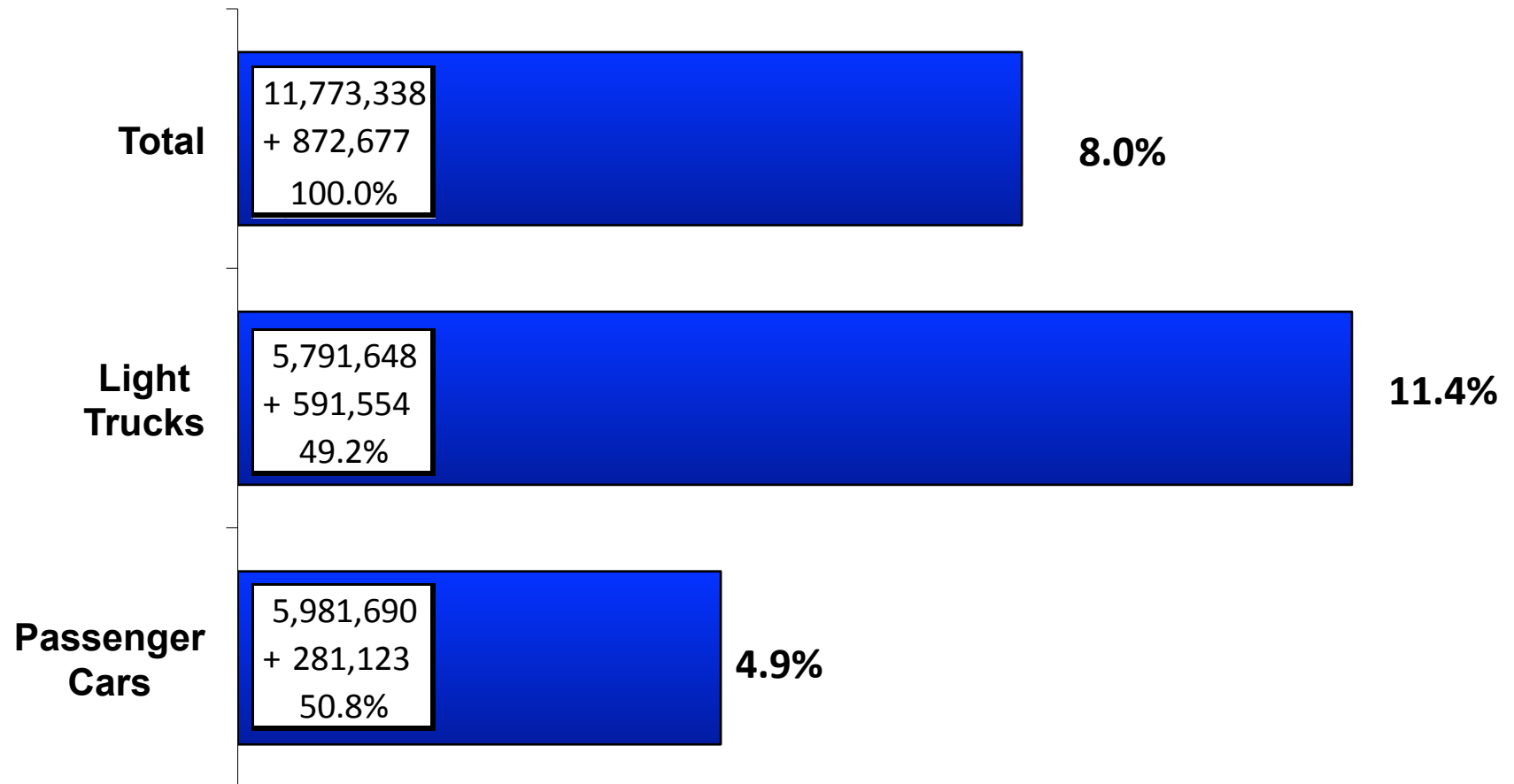
**Automotive  
Communities  
Partnership**



Communities working together

# U.S. Light Vehicle Sales

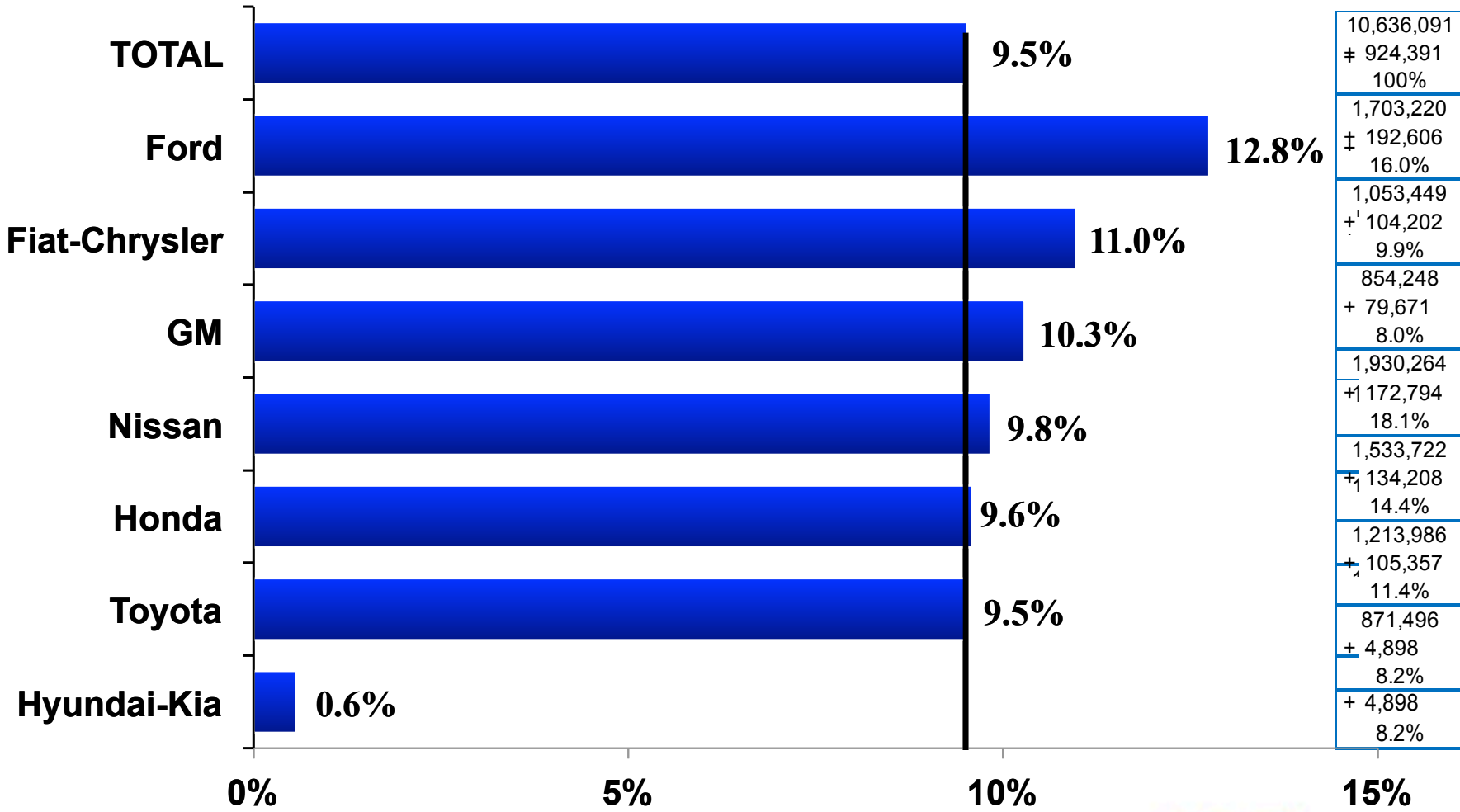
## Percent Change YTD Through September: 2013 vs. 2012



Source: Automotive News; CAR Research

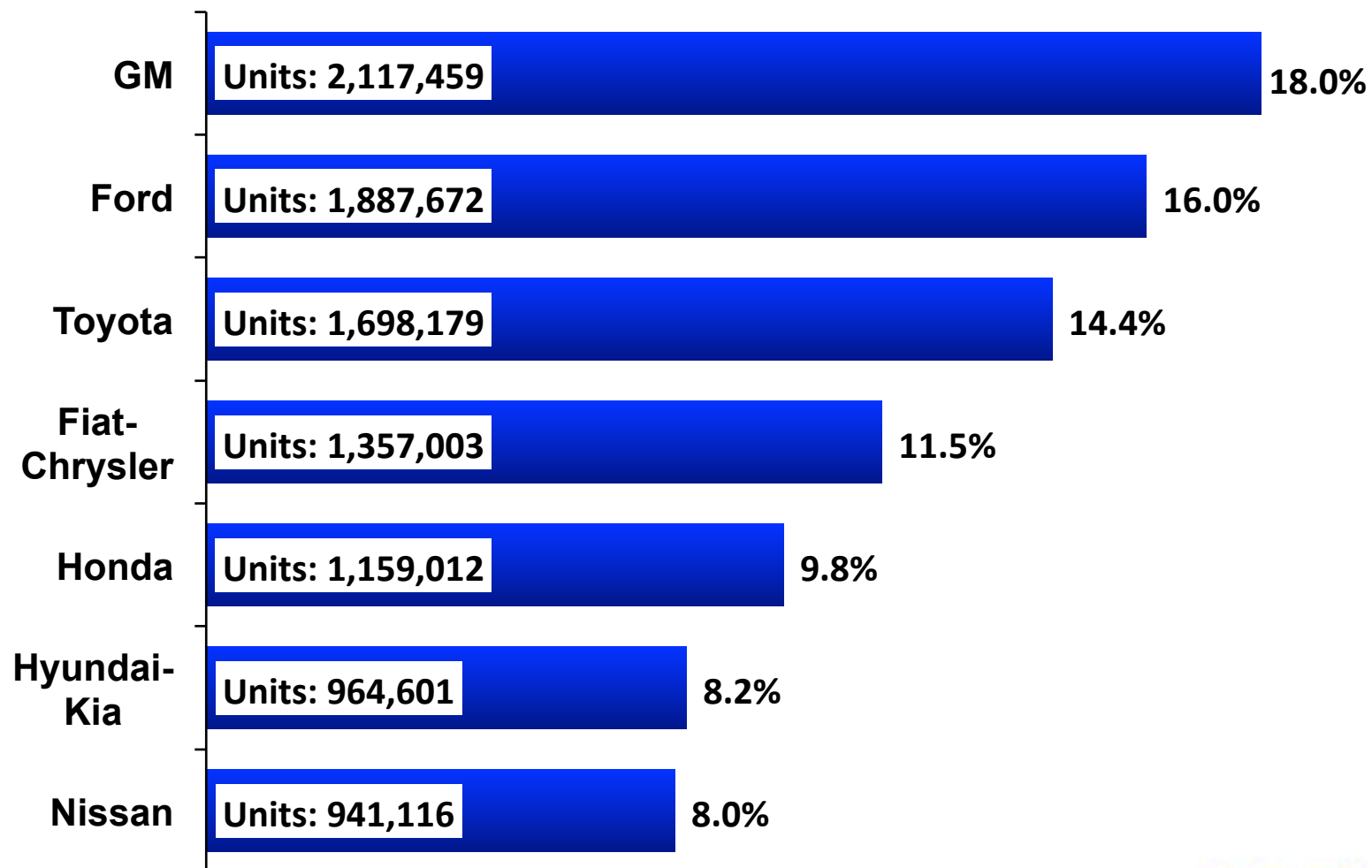


# Percent Change in Sales of Light Vehicles Per OEM: YTD Through September: 2013 vs. 2012



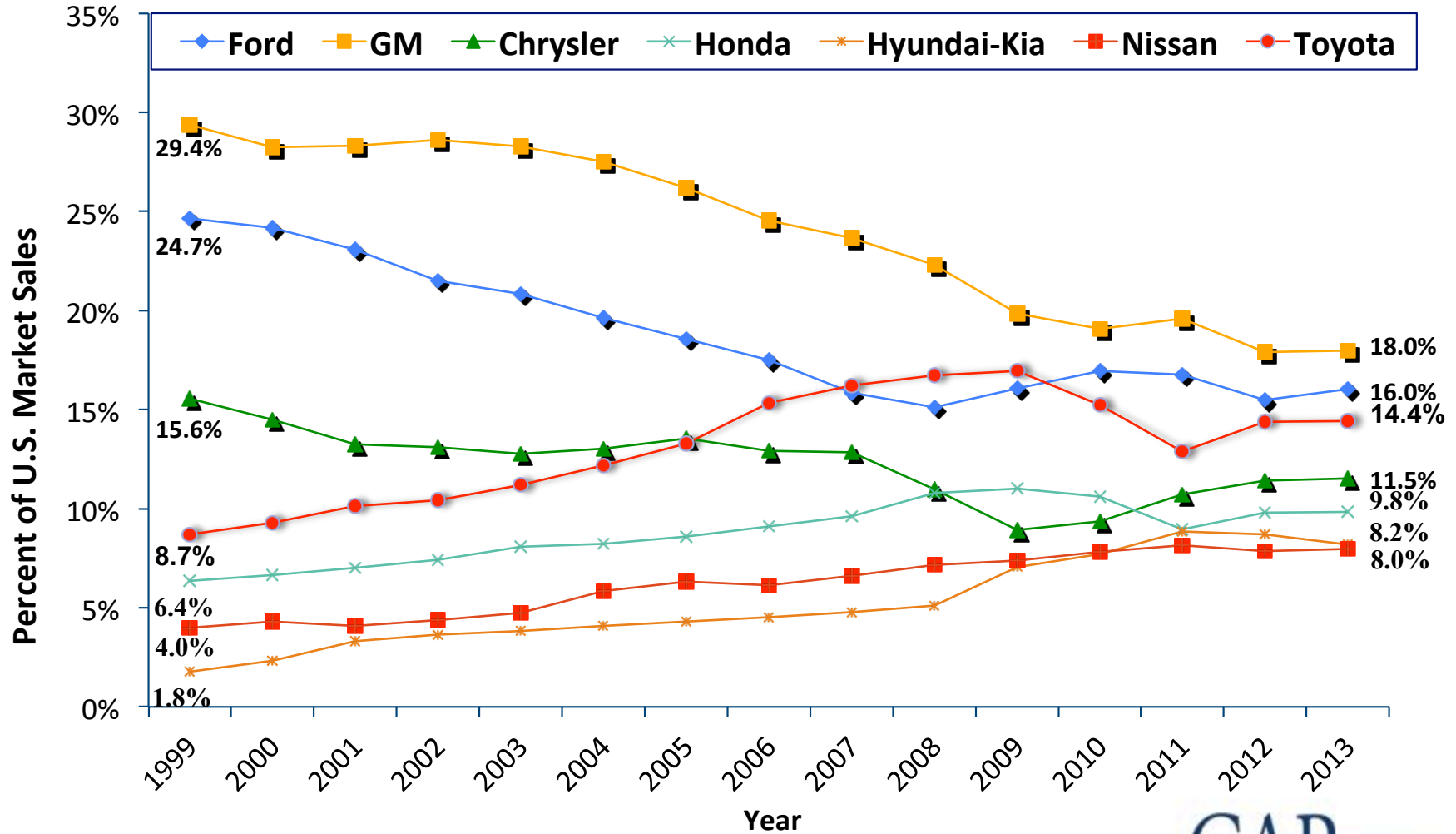
Source: Automotive News; CAR Research

# U.S. Market Share: YTD September 2013



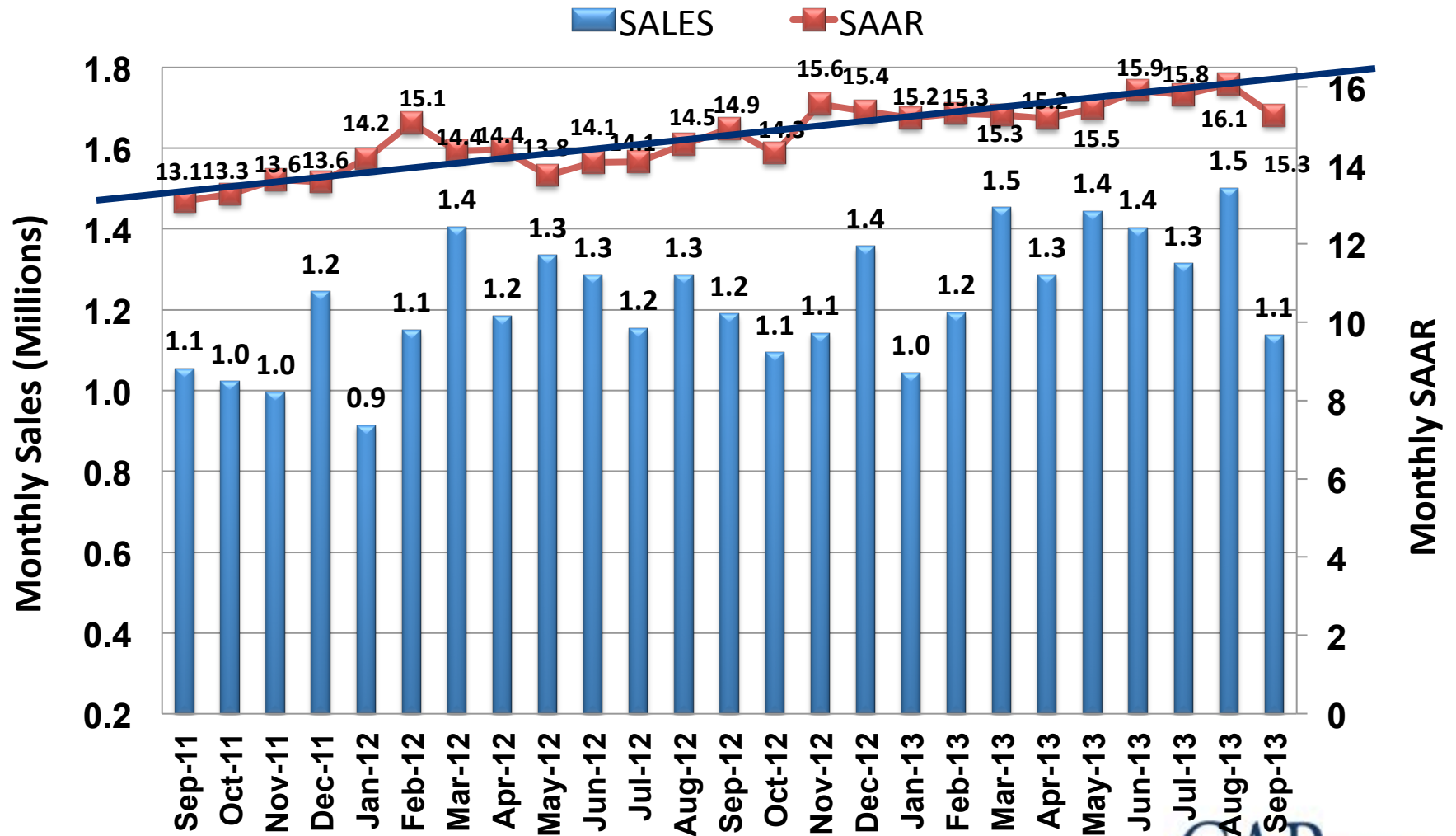
Source: Automotive News; CAR Research

# Big 7 Monthly U.S. Market Share 1999 – 2013 YTD (September)



Source: Automotive News; CAR Research

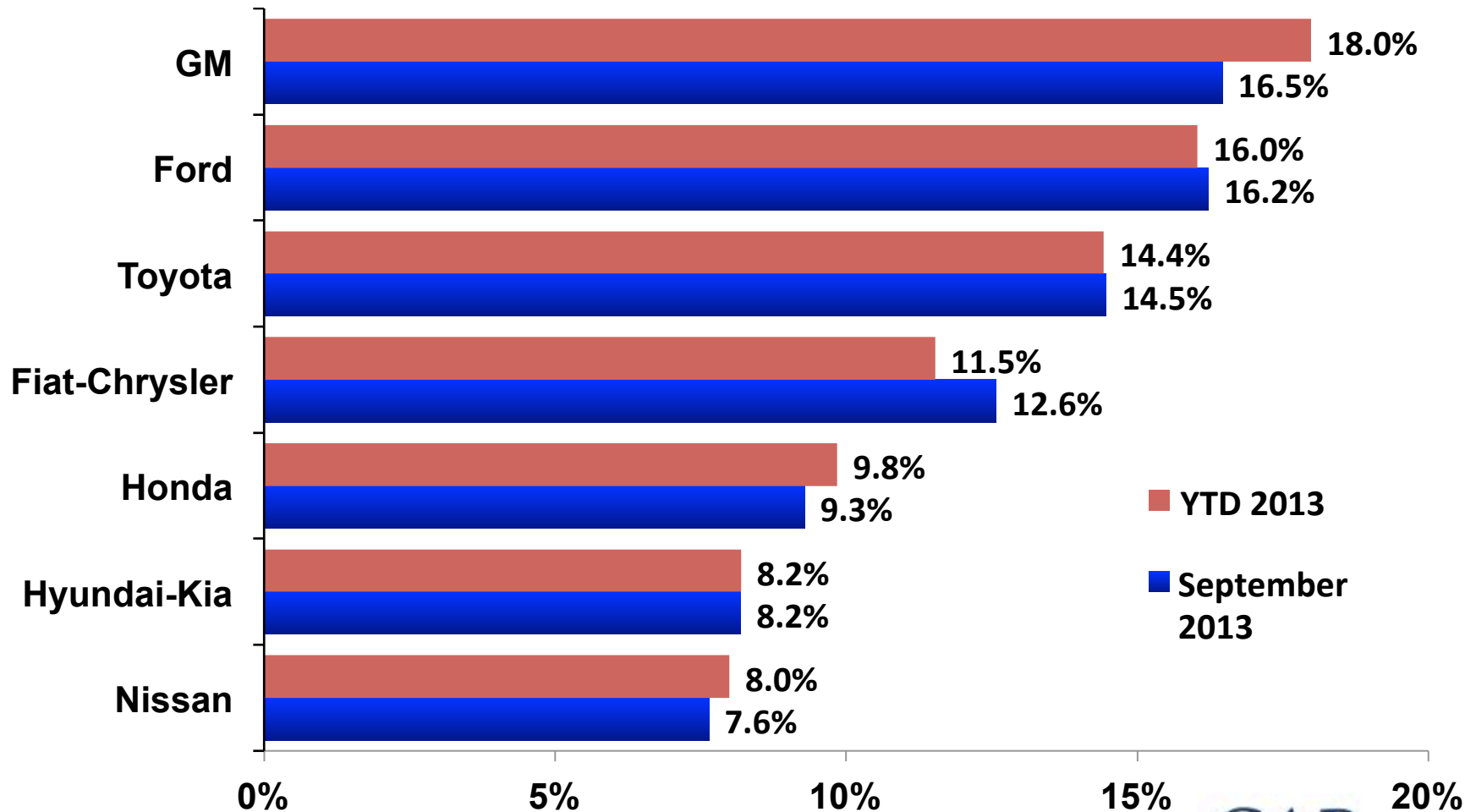
# U.S. Light Vehicle Monthly Sales and SAAR September 2011 – September 2013



Source: Automotive News; CAR Research

# Detroit Three at 45.3% in September 2013

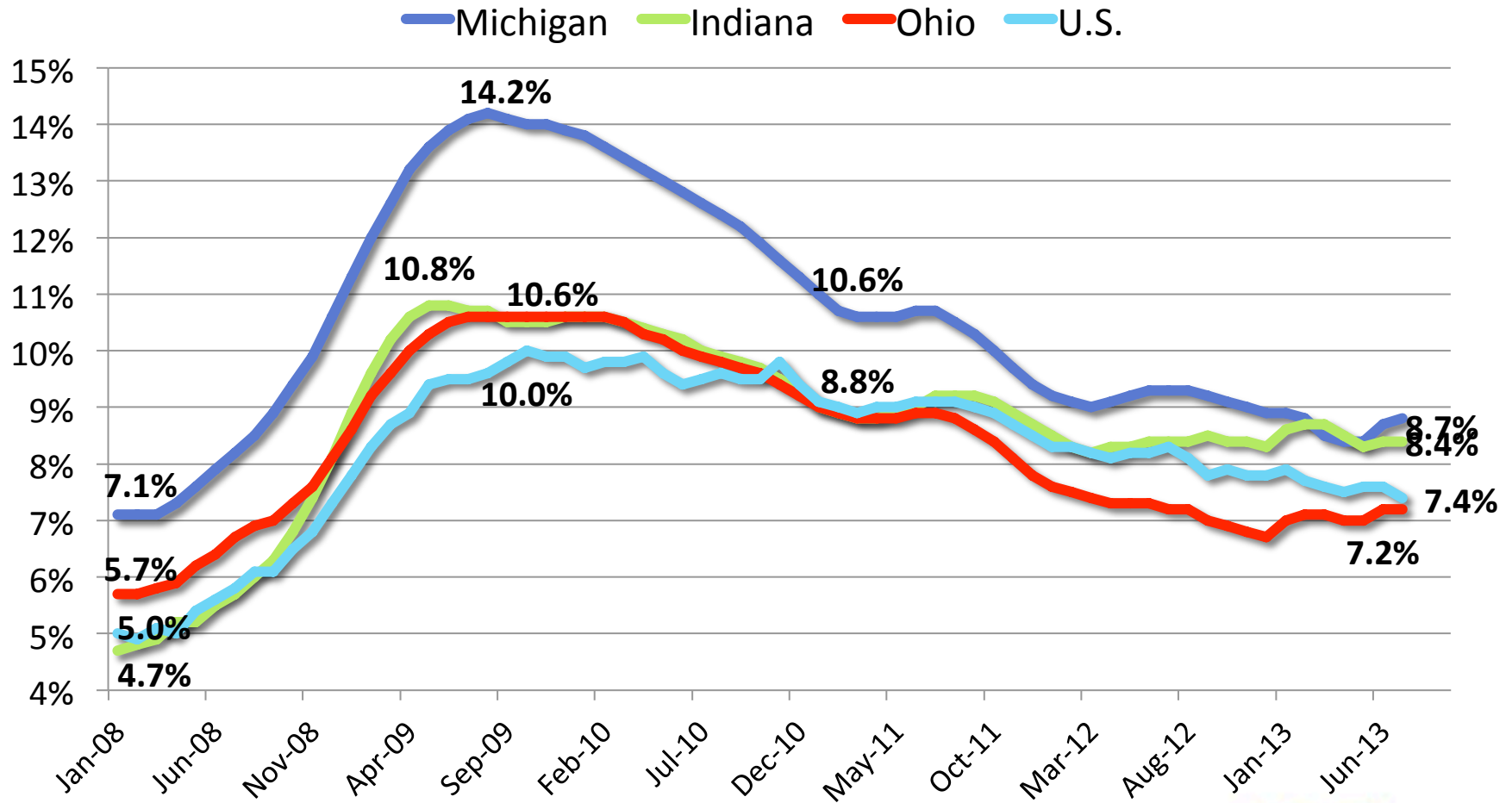
## U.S. Market Share: September 2013 & YTD Total



Source: Automotive News; CAR Research

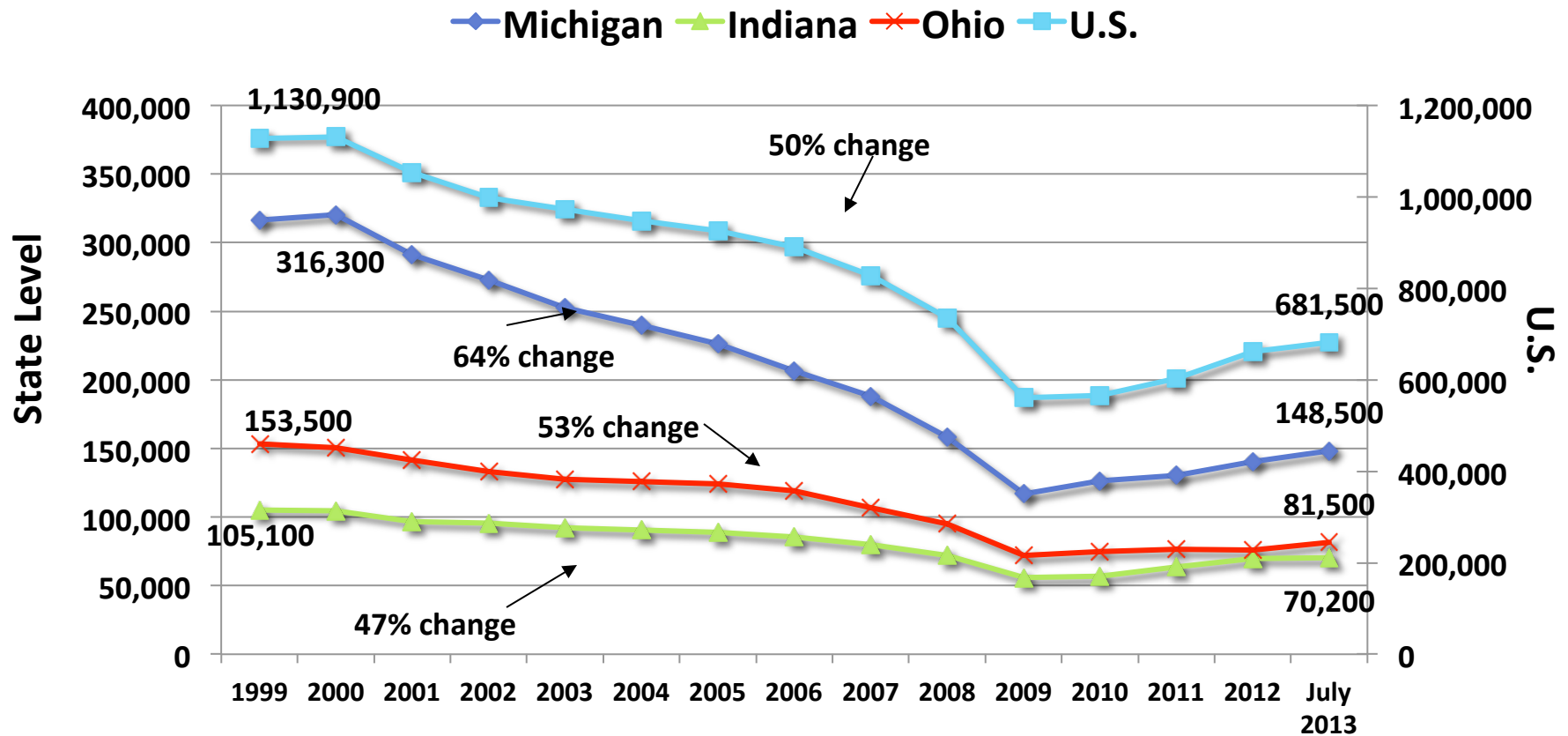
# Unemployment Rate

January 2008 – July 2013



Source: Bureau of Labor Statistics

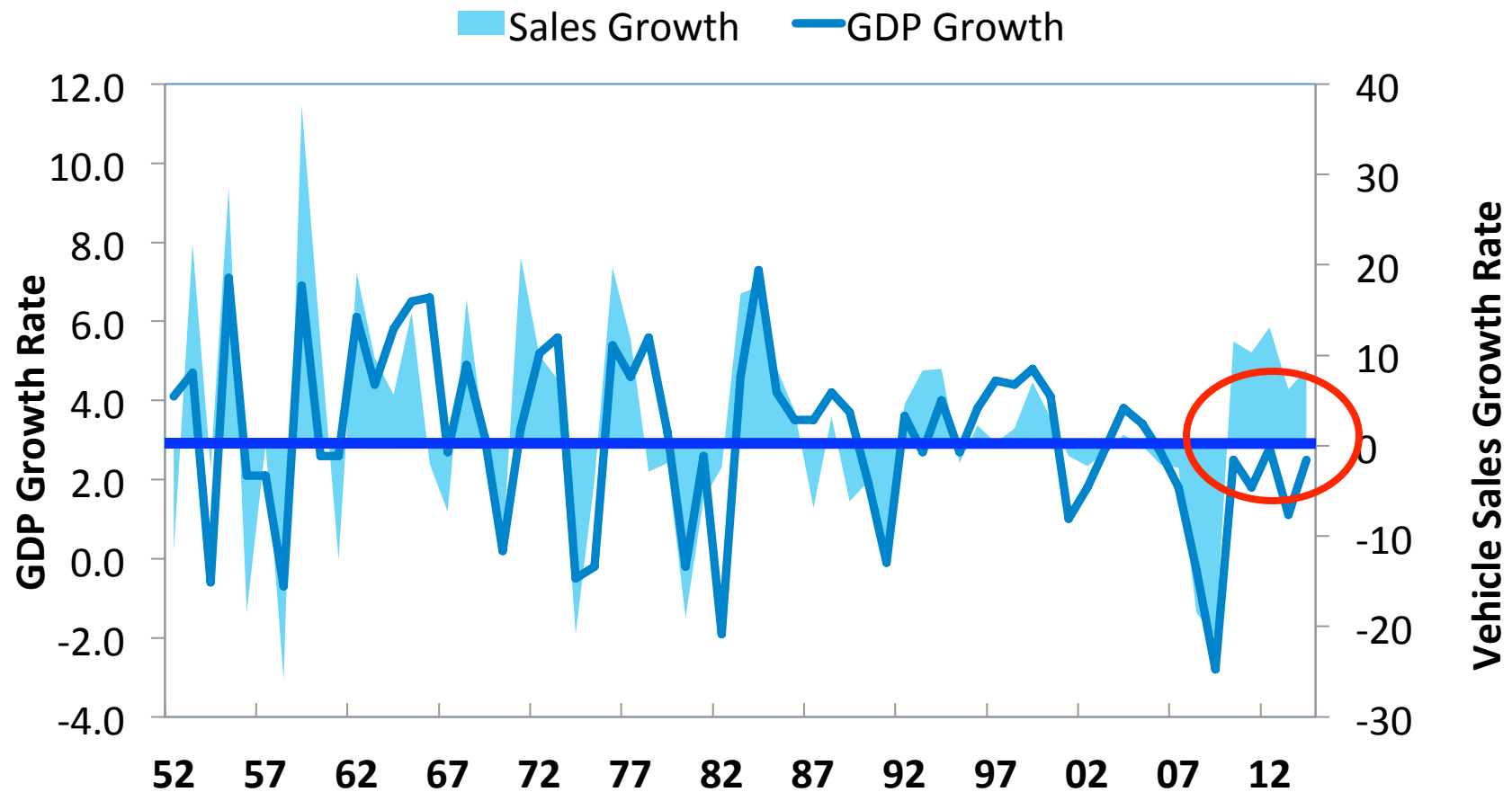
# Motor Vehicle & Parts Manufacturing Employment 1999 – July 2013



Source: BLS, U.S. DOL

# Auto Sales and Economic Growth are Disconnected

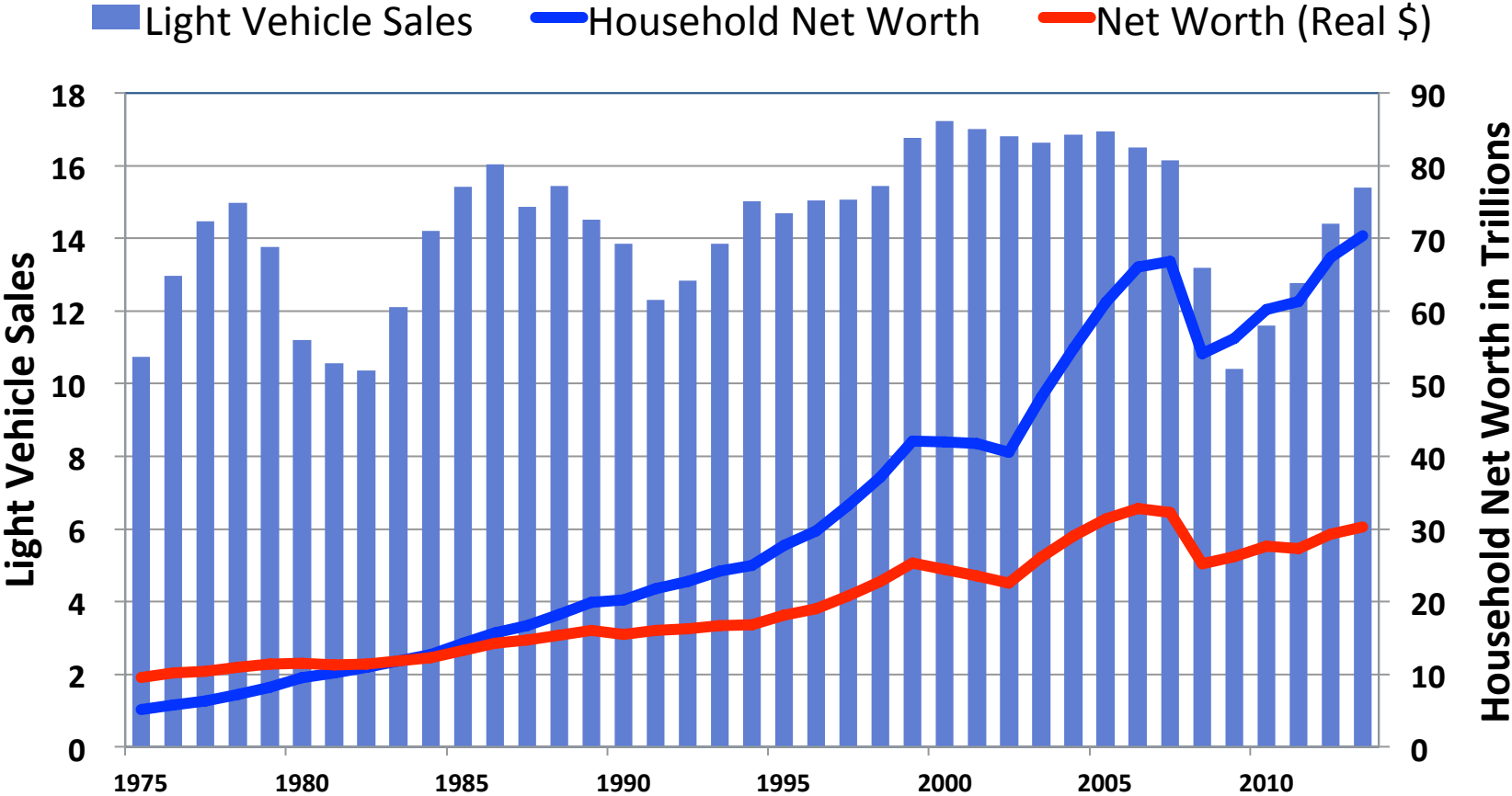
## U.S. GDP Growth Rate and Vehicle Sales Growth Rate 1952 – Q2 2013



Source: Bureau of Economic Analysis



# Household Net Worth and Vehicle Sales 1978-2013\*



Source: Federal Reserve Statistical Release , Z.1, Flow of Funds Accounts of the United States

\*Net worth as of Q1 2013; sales as of 1H 2013 SAAR.

Real Household net worth is deflated by CPI.

# Is the Auto Industry Back?

**Product? Yes.**

**Productivity? Yes.**

**Profitability? Yes.**

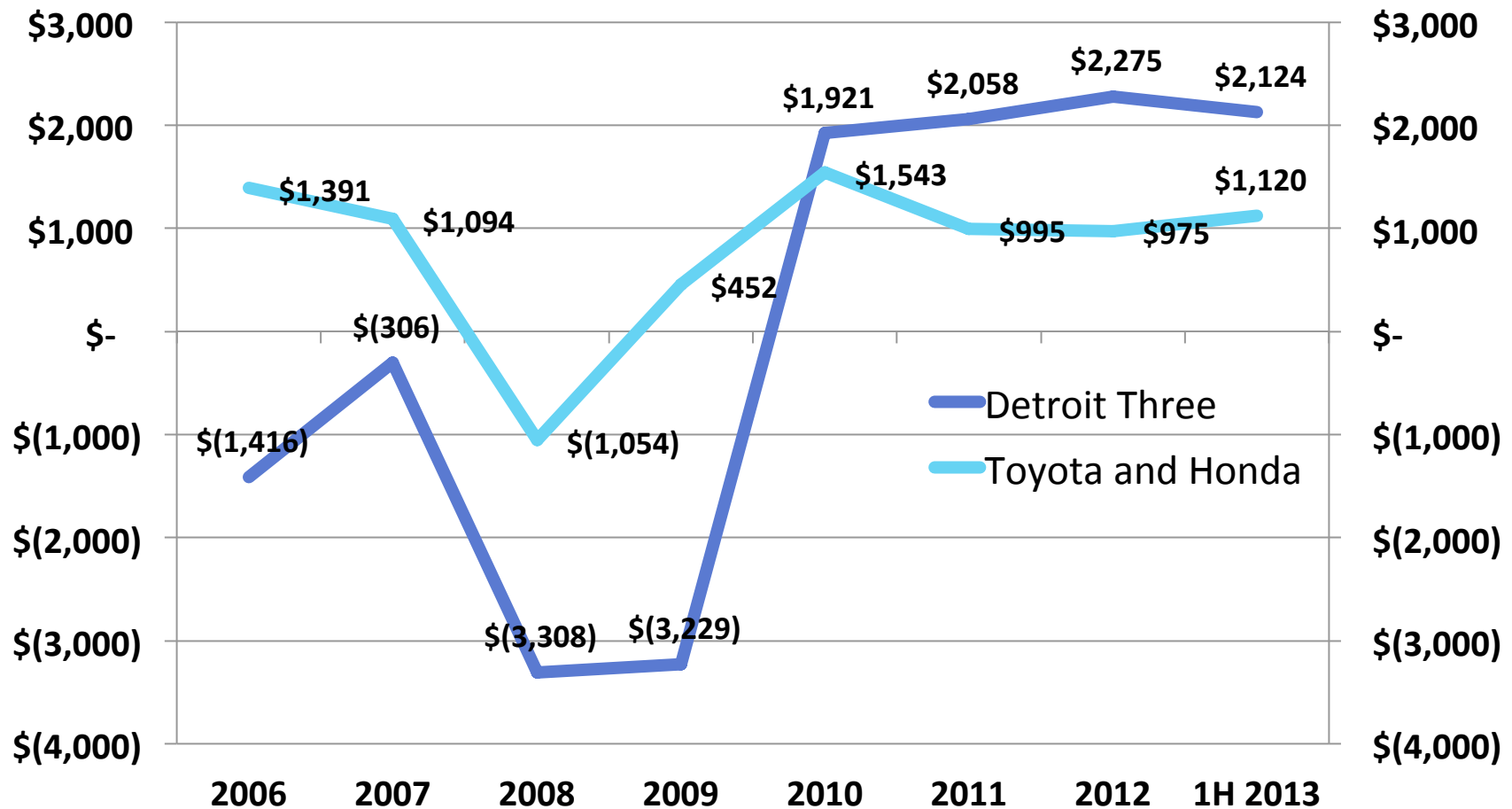
**Investment? Yes.**

**Production? Not quite yet.**

**Sales? Not quite yet.**

**Employment? No.**

# Per Vehicle Profits\*, North America 2006—2013/1stH



\*EBIT or automotive operating income per vehicle sold. Global average for Chrysler figure. Honda excludes motorcycle, finance, and power products.

# U.S. Auto Sales Are Still Improving

## Good:

- Net Household Wealth is improving
- Unemployment rate at 7.3%
- Used Vehicle prices and age of fleet are still high – scrappage low  
Auto density increasing . . .
- Sales up despite high prices – pent-up demand! Increased leasing
- Credit is very available/interest rates almost record low
- Consumer confidence steady... House prices improving
- The Cliff turned out to be a molehill so did the Sequester: Deficit down

## But . . .

## Bad:

- Economy still growing at “stall speed”? Or reaching “escape velocity?” More Fiscal Cliffs?
- Still 12 million unemployed, or more . . .
- States/Cities cutting spending and employment
- Corporations nervous to hire
- Developing economies in trouble
- Europe is stagnant

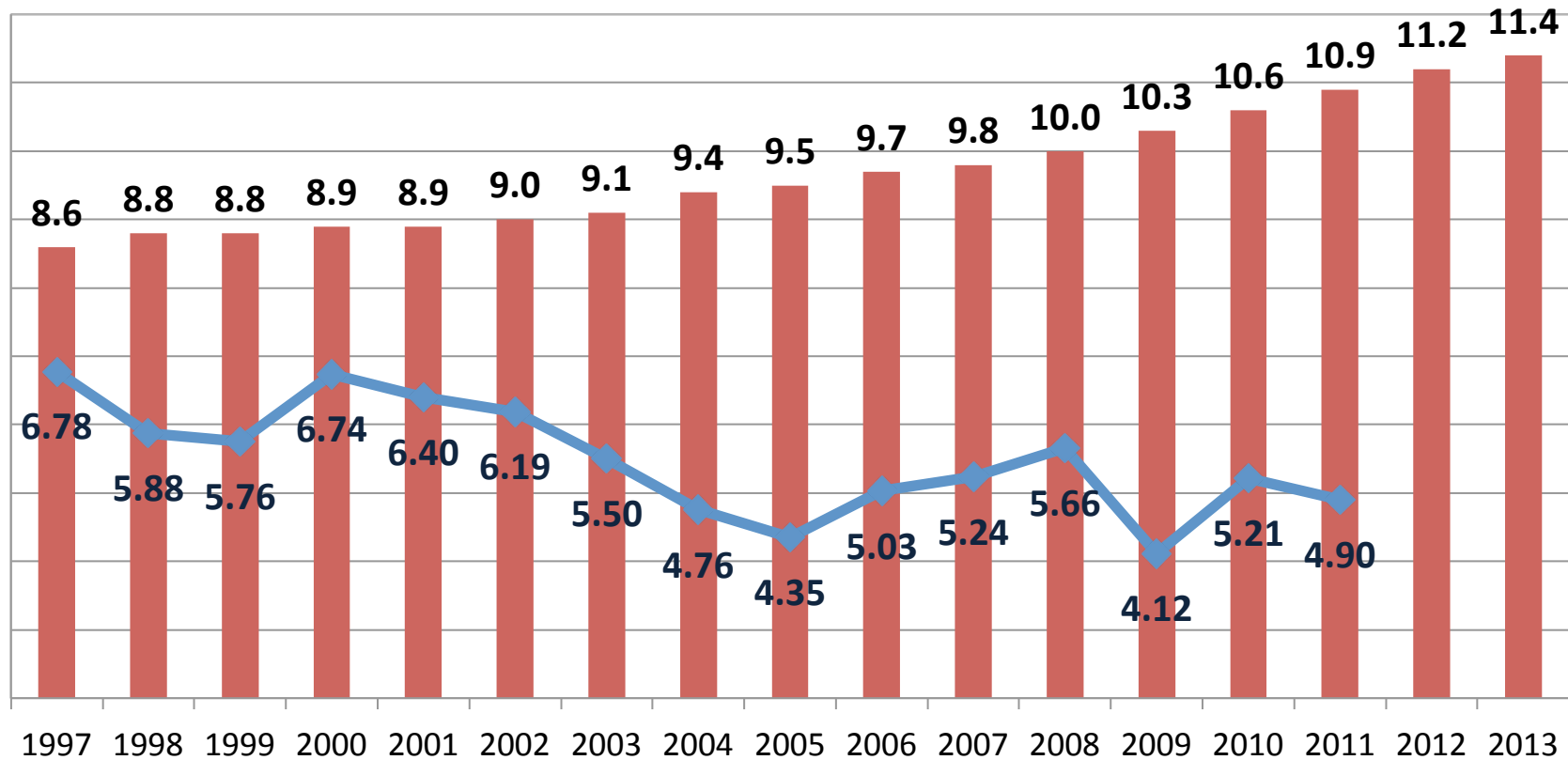




# They are Getting Old . . . U.S. Light Vehicle Age and Scrappage Rate










■ Average Age    ◆ Scrappage Rate (%)








Source: R.L. Polk

# 2013 U.S. Sales Forecasts (Units in Millions)

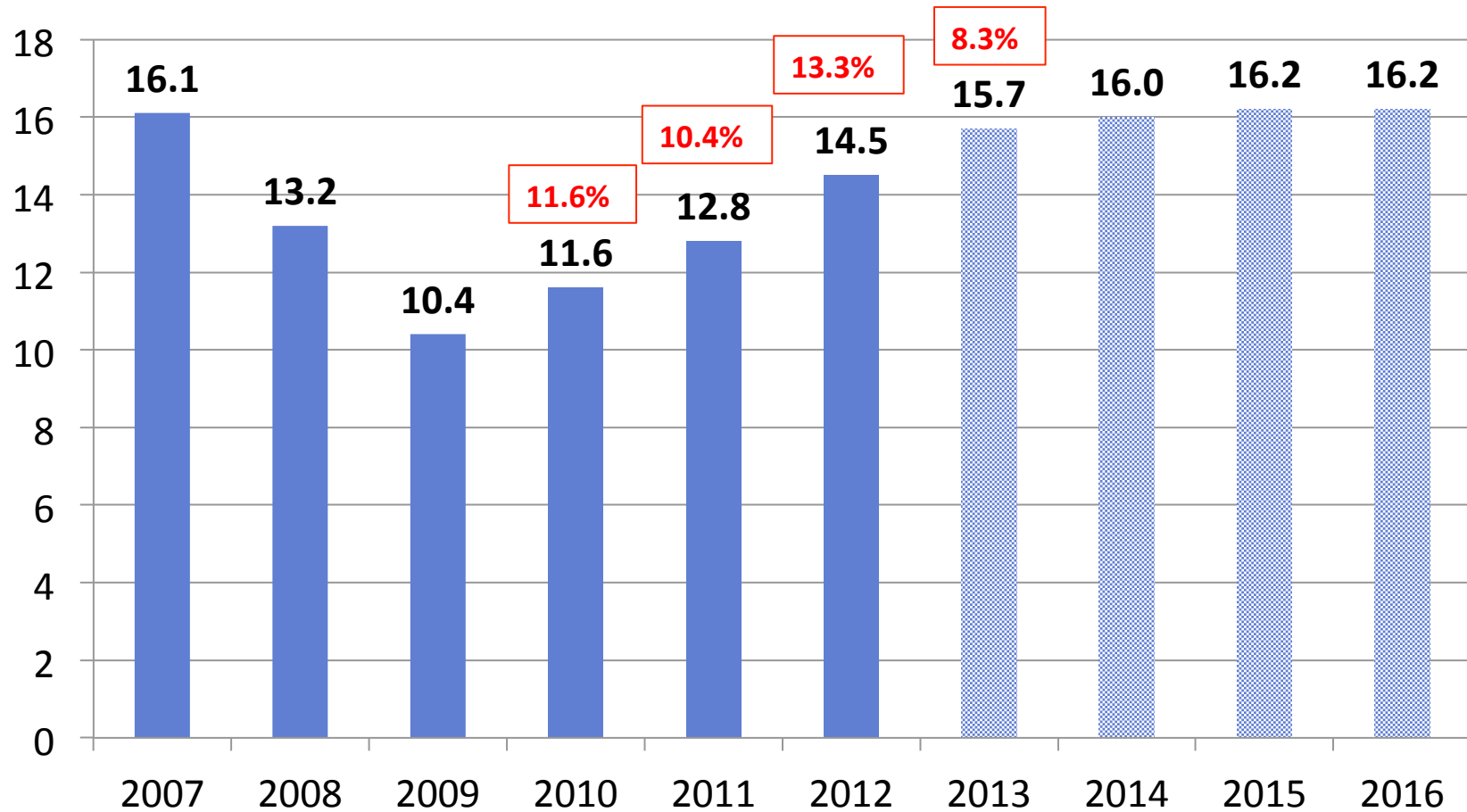
	15.7	(9/13)
	15.6	(7/13)
	15.6	(7/13)
	15.2	(4/13)
	15.5	(4/13)
	16.0	(1/13)
	15.4	(7/13)
	15.5	(4/13)
	15.5	(7/13)
	15.3	(3/13)
	15.5	(8/13)

# 2013 U.S. Sales Forecasts (Units in Millions)

	<b>15.75* (15.5 – 16.0)</b>
	<b>15.25 (15.0 – 15.5)</b>
	<b>14.8</b>
	<b>15.2</b>
	<b>15.3</b>

\* Includes heavy duty trucks

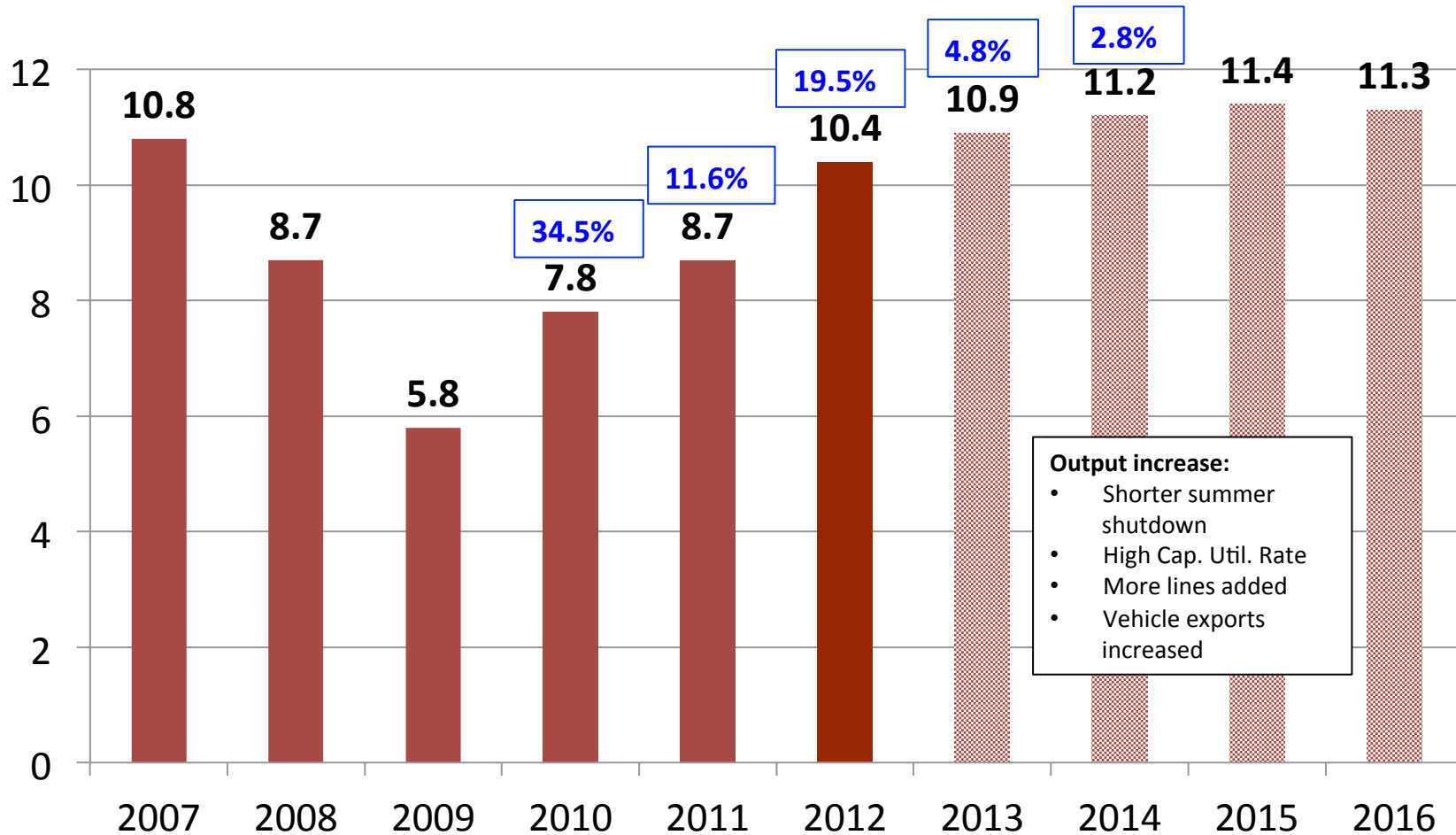
# U.S. Light Vehicle CAR Sales Forecast: 2007-2016



Source: CAR Research, Jan. 2013



# CAR U.S. Vehicle Production Forecast: 2013-2016



**Output increase:**

- Shorter summer shutdown
- High Cap. Util. Rate
- More lines added
- Vehicle exports increased

Source: CAR Research, July 2013

# **Economic Contribution Study: Michigan Assembly Plant**

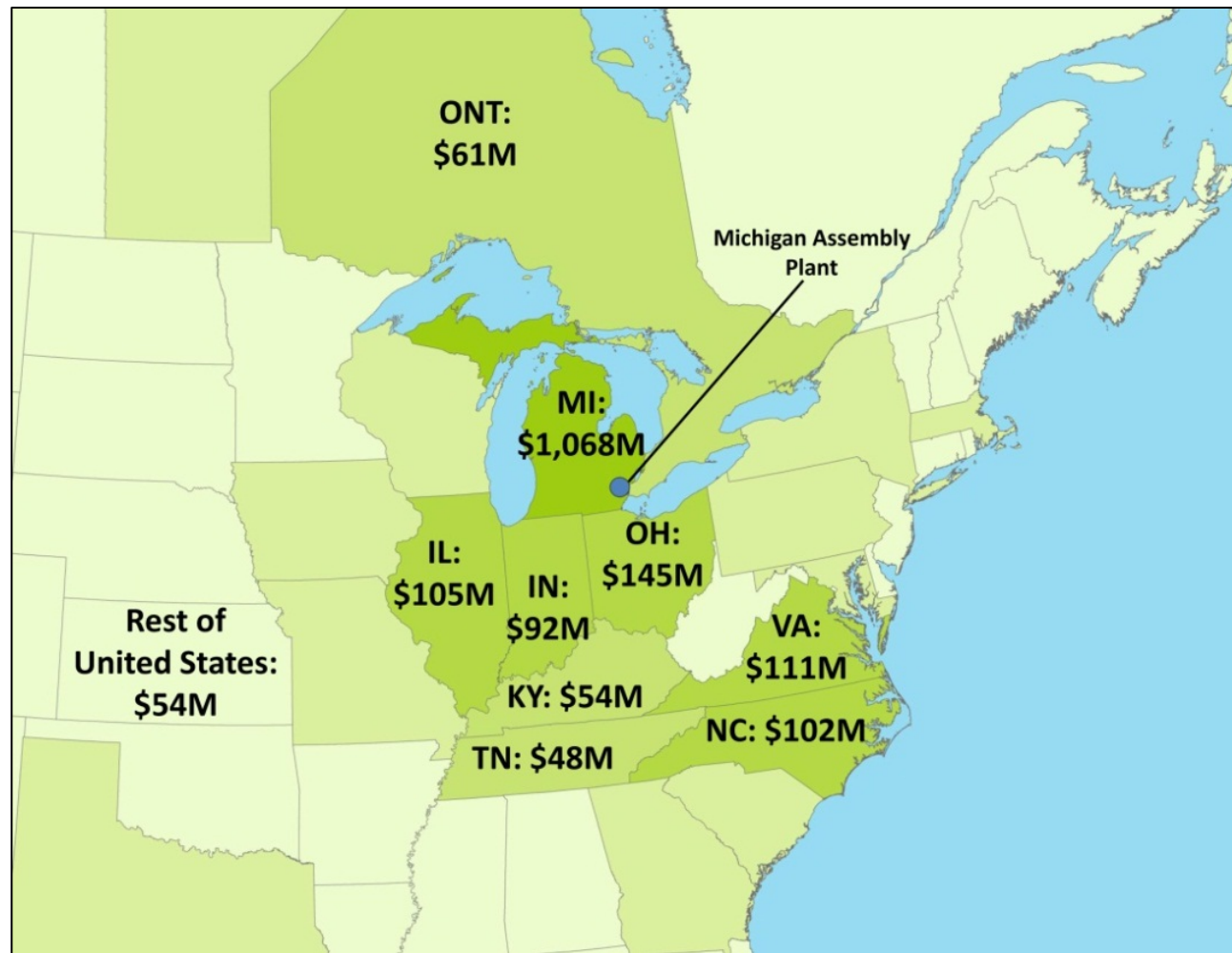
# Michigan Assembly Plant and Purchases from Independent Suppliers

- In the past two years, Ford Motor Company has invested over \$770 million at Michigan Assembly Plant (MAP)
  - convert the former truck plant to produce Focus and C-MAX
- The plant purchases over \$1 billion in parts annually from Michigan-based businesses each year;
  - \$1.8 billion throughout the U.S.
  - \$3.2 billion total
- The Michigan Assembly Plant is served by 179 Tier 1 suppliers from across the United States
  - 80 of these firms located in Michigan.

# Economic Contribution of MAP to the Michigan Economy

- Direct employment at MAP is over 5,000
- When supplier and spinoff jobs are taken into account, the facility supports another 19,000 jobs within Michigan
  - 48,000 total jobs in the United States (counting the assembly plant employees)
- These jobs generate annual wages of \$1.8 billion in the state of Michigan
  - \$3.6 billion nationally.
- MAP and its suppliers add \$3 billion to the State Gross Product and almost \$5.7 billion to national GDP.
- MAP and its suppliers generate \$70 million in Michigan state taxes annually

# MAP Independent Supplier Spending by State (Millions of Dollars), 2011



Source: Center for Automotive Research analysis of data supplied by Ford Motor Company

# Assessment of Tax Revenue Generated by the Automotive Sector



# Study Findings

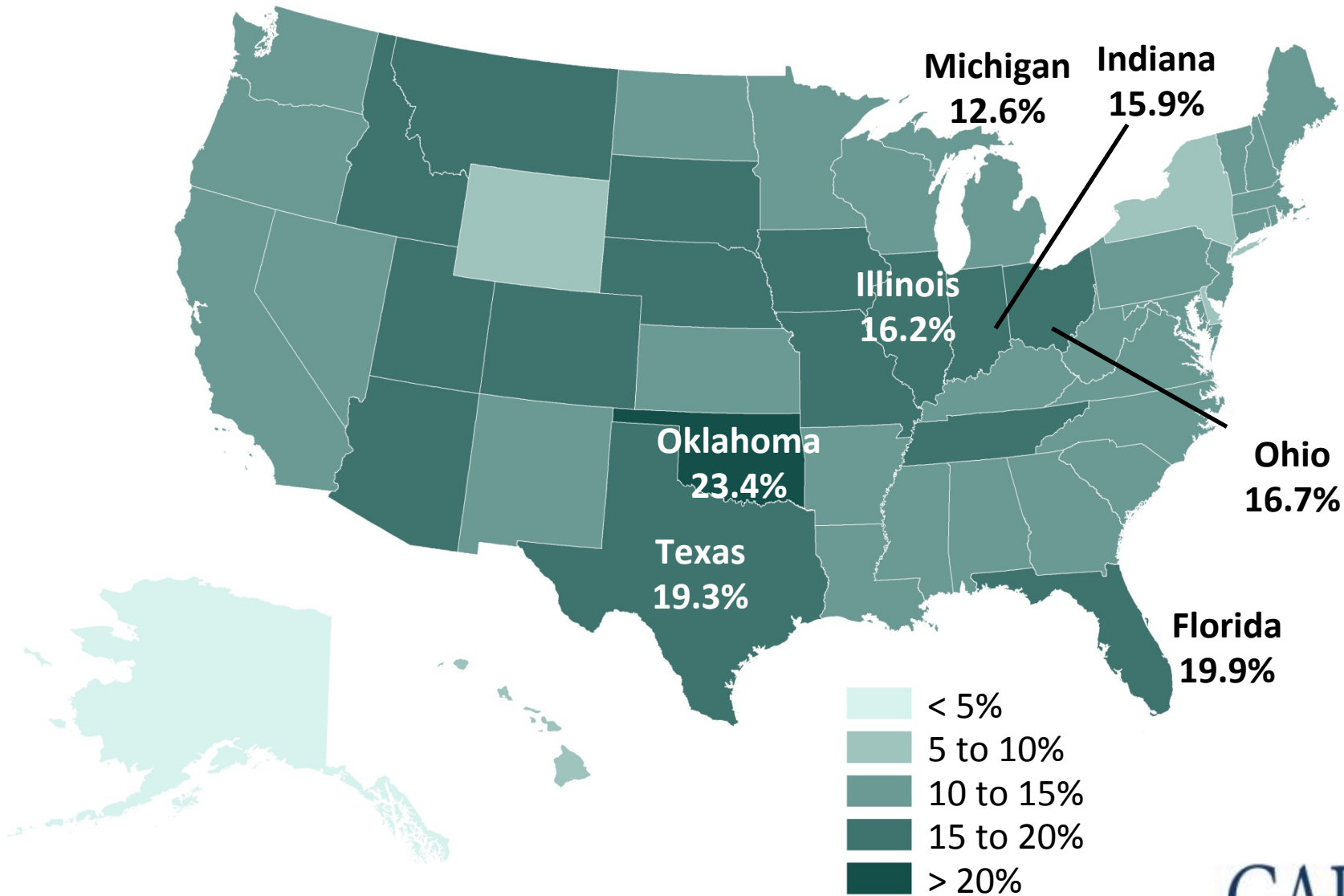
- Auto industry generated over **\$130 billion** in government tax revenue in 2010, including **\$91.5 billion** for state governments and **\$43 billion** for the federal government.
- The sources of these revenues include:
  - Sales taxes (\$30 billion)
  - Income taxes (\$15 billion)
  - Taxes and fees on use (\$89 billion)
  - Business taxes and fees (\$750 million)

# State Government Revenue Overview

- Auto industry generated at least **\$91.5 billion** in state government tax revenue in 2010, which is **13 percent** of state government tax revenues.
- **\$30 billion** from taxes on vehicle **sales and service**
- **\$860 million** from taxes on **direct employment**
- **\$60 billion** from taxes and fees on **use** of vehicles
- **\$750 million** from taxes on **businesses**



# Automotive Tax Revenues as a Percentage of Total Taxes Paid to State Governments



# **Small Suppliers: Backbone of the Industry, but Constrained**



Assembly

Tier 1

Tier 2

Tier 3



Assembly

Tier 1

Tier 2

Tier 3



## New Investment Announced!

\$ \_\_\_ Million

\_\_\_ New Jobs To Be Created

\_\_\_ Unit Production Increase

*But who will staff that new capacity? Where do those workers come from? Who has the needed skills and background?*

# Questions?



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