



# Automotive Workforce Challenges in Recovery

October 8, 2009

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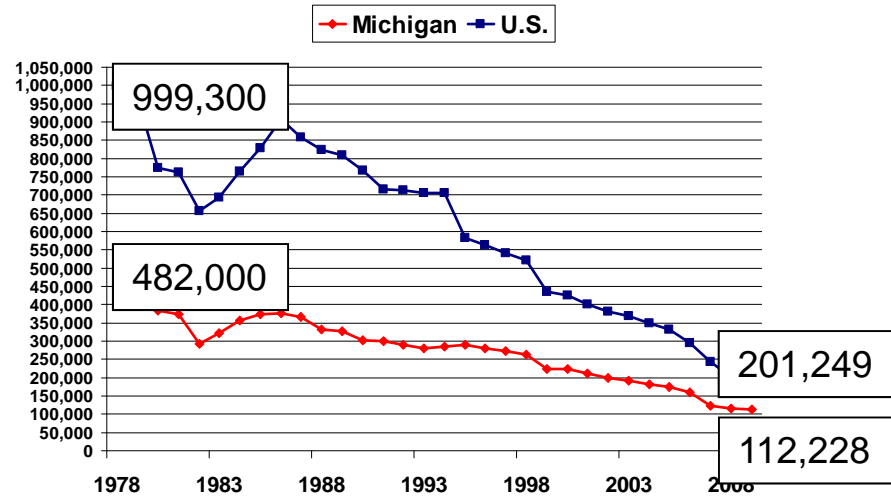
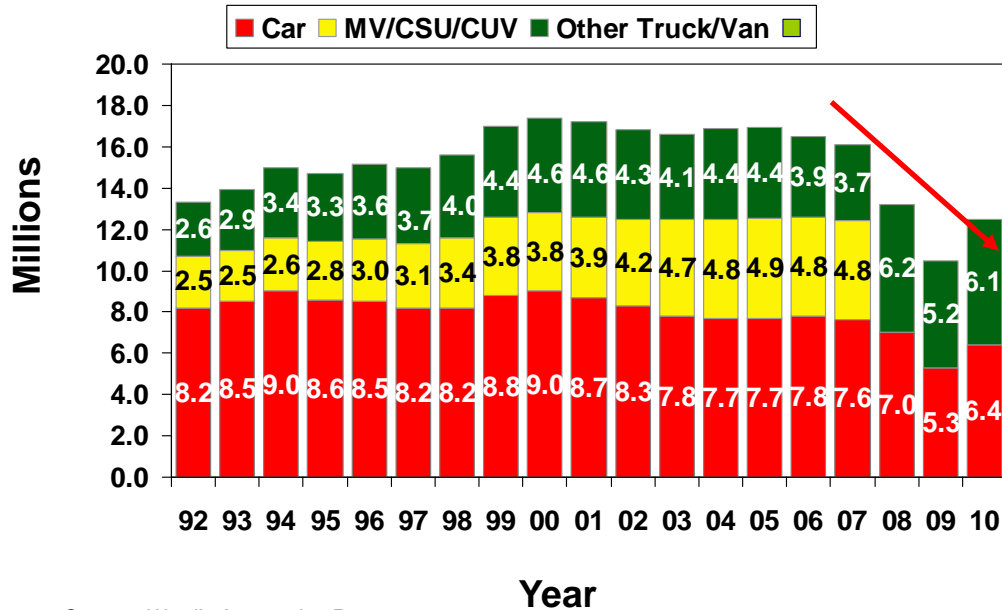
Ann Arbor, MI

# Into the Abyss

- Ongoing restructuring
- Low price premium
- High cost structure
- Product mix
- Energy prices
- Credit crisis

Total U.S. Sales of Light Vehicles:  
1992 - 2009

Detroit 3 U.S. and MI Hourly Employment  
1978 - Feb 2009



Source: Ward's Automotive Reports

# GM, Ford, Chrysler, Delphi & ACH U.S. and Canadian Plant Shutdowns Announced and Executed, 2005-2011

NUMMI – March 2010

Portland SPO - 2006

**GM, Ford & Chrysler Shutdowns: 55 Plants**  
111,398 Hourly; plus  
49,176 Salaried

**NUMMI: 1 plant**  
4,550 Hourly;  
850 Salaried;  
1,000 in-plant supplier jobs

**Delphi Job Cuts: 27 Plants**  
18,377 in Plant Shutdowns and Selloffs

**ACH Job Cuts: 14 Plants**  
21,400 in Plant Shutdowns and Selloffs

**Shutdown Total = 112,612**  
Line Trimming, Sold, & Buyouts = 40,900  
Salaried = 46,839

**Total Impact = 206,751 Jobs**

**GM Shutdowns**

**Ford Shutdowns**

**Chrysler Plant Shutdowns**

**Delphi Plant Shutdowns**

**ACH Plant Shutdowns**

Fontana PDC – 2009

St. Louis South – 2008

St. Louis North – 2009

St. Louis - 2006

Oklahoma City-2006

Jacksonville SPO – 2010

Fredericksburg Comp.– 2010

Spring Hill – Nov 2009 (Standby)

Orion – Sep 2009 (Standby)

Drayton Plains PC - 2009

Oshawa Truck - 2009

Flint North Engine – 2008

Flint North Components - 2010

Saginaw Malleable - 2007

Livonia Engine – 2010

Wixom – 2007

Formulus Trans. – 2005

Pontiac – Oct 2009

Pontiac Stamping – Dec 2010 (Standby)

Massena Foundry – 2009

Windsor Trans. - 2010

Essex Engine – 2007

Windsor Casting – 2007

Boston SPO - 2011

Sterling Heights - 2010

Detroit Axle - 2010

Conner Ave - 2009

Maumee Stamping – 2007

Twinsburg Stamping - 2010

Parma Comp.– 2010

Brook Park Casting – 2010

Linden - 2005

Wilmington – July 2009

Newark – 2008

Baltimore - 2005

Pittsburgh Metal - 2008

Norfolk – 2007

Lorain - 2005

Mansfield Metal – June 2010

Toledo South – 2006

Columbus SPO - 2009

Moraine - 2008

Batavia Trans. – 2008

Muncie Transmission - 2006

Indianapolis Metal – Dec 2011

Atlanta – 2006

Doraville - 2008

Cities - 2011

Lansing Craft Centre-2006

Lansing M - 2005

Lansing Metal - 2006

Willow Run Site – 2010

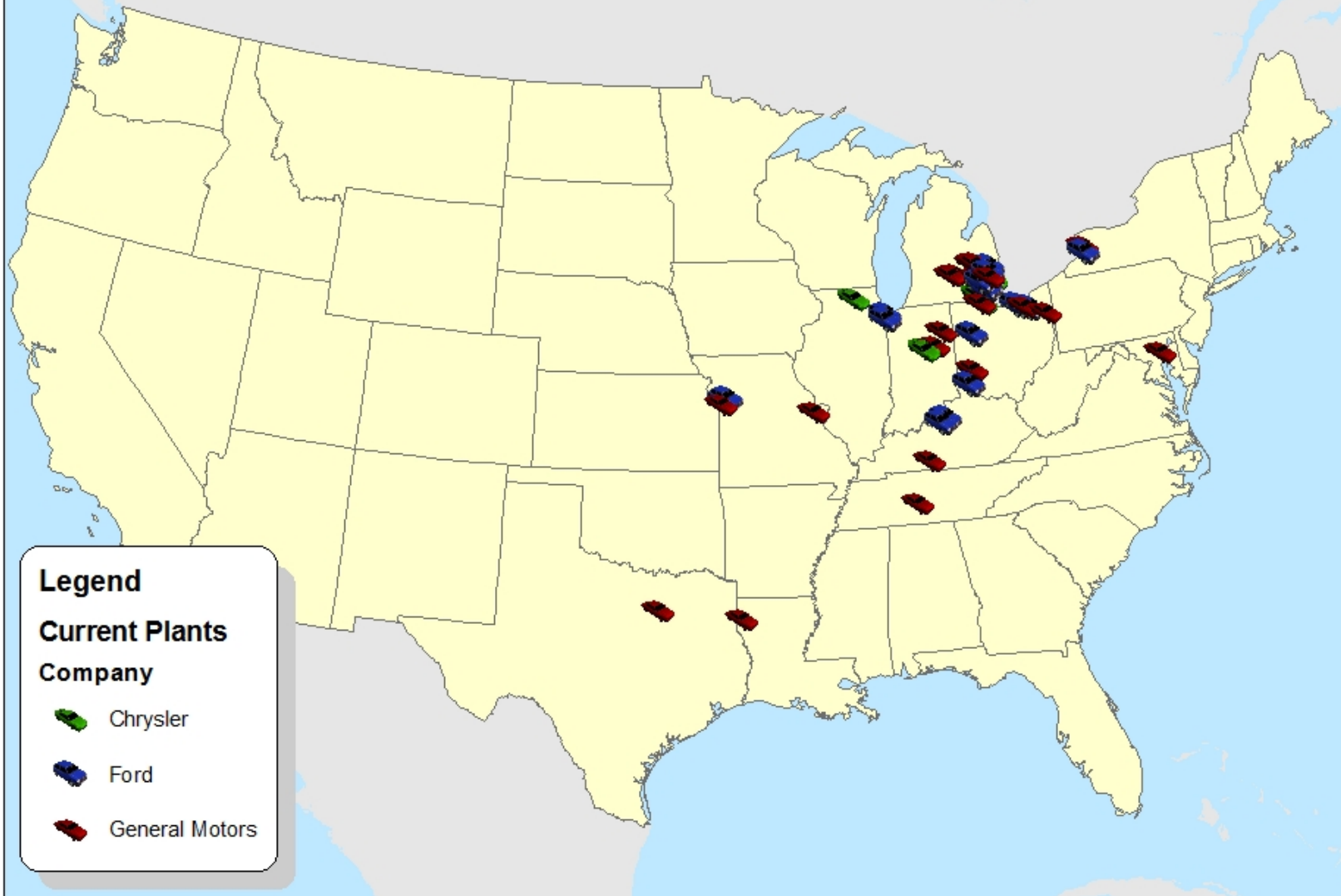
Janesville – 2008 (Standby)

Kenosha Engine - 2009

Grand Rapids Stamping - 2009

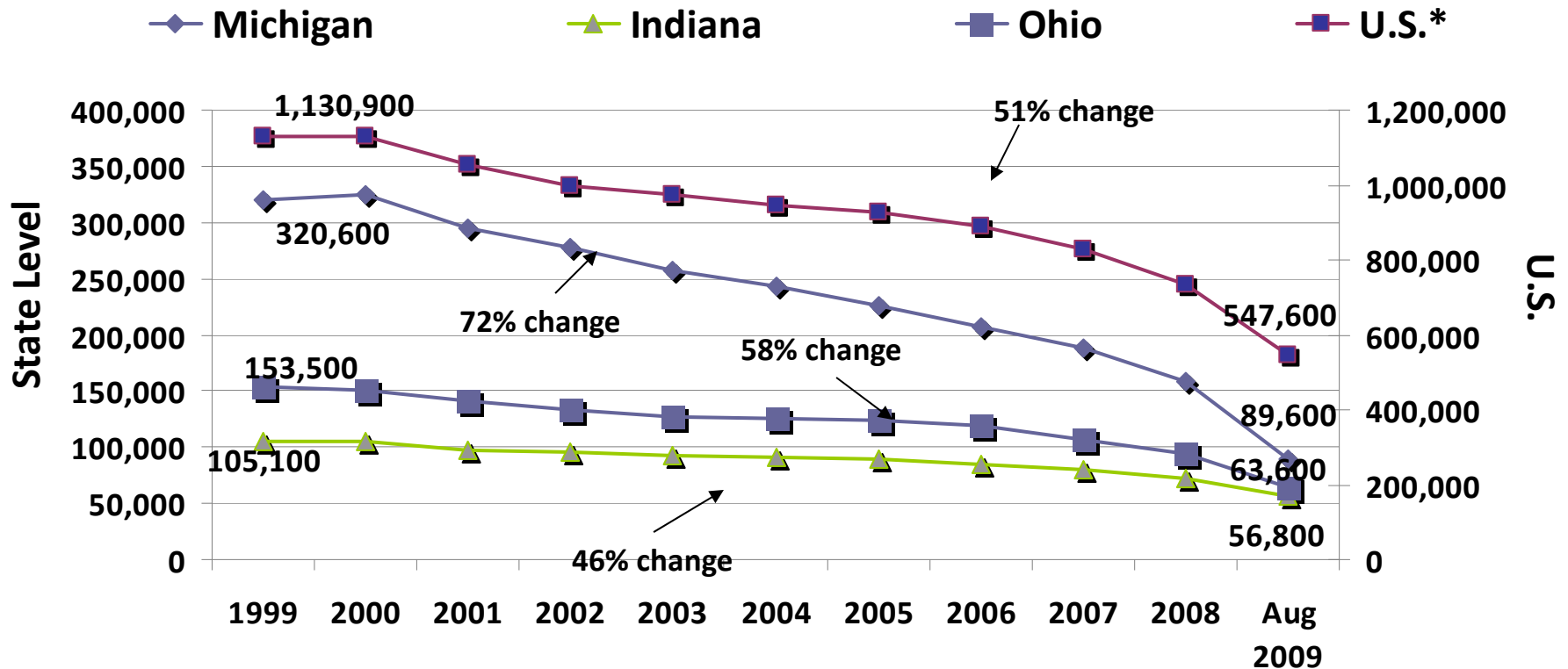
Shreveport

# 2014 Detroit Three US Manufacturing Footprint

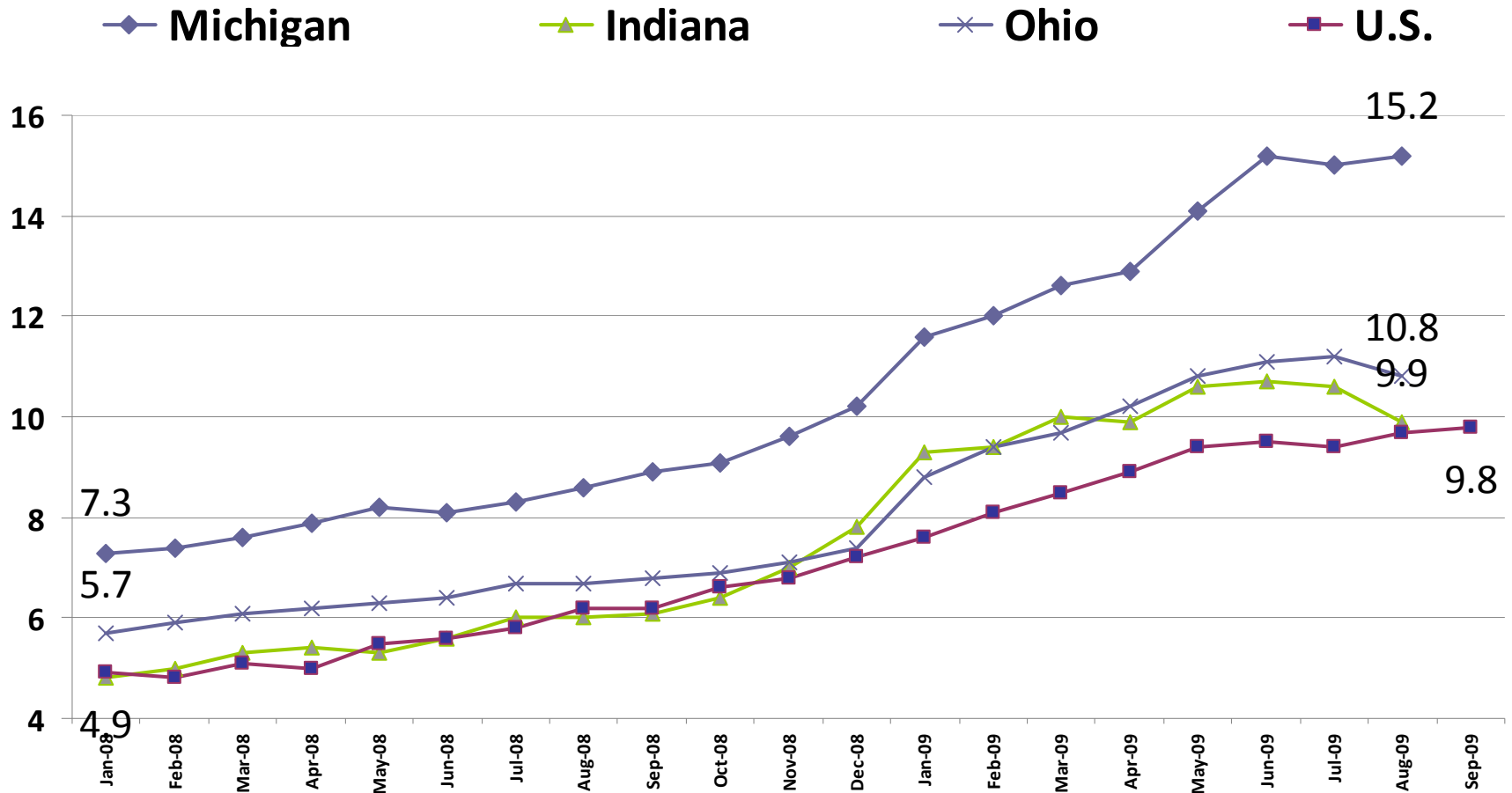


# The Darkest Part of the Tunnel...

## Motor Vehicle & Parts Manufacturing Employment 1999 – July 2009



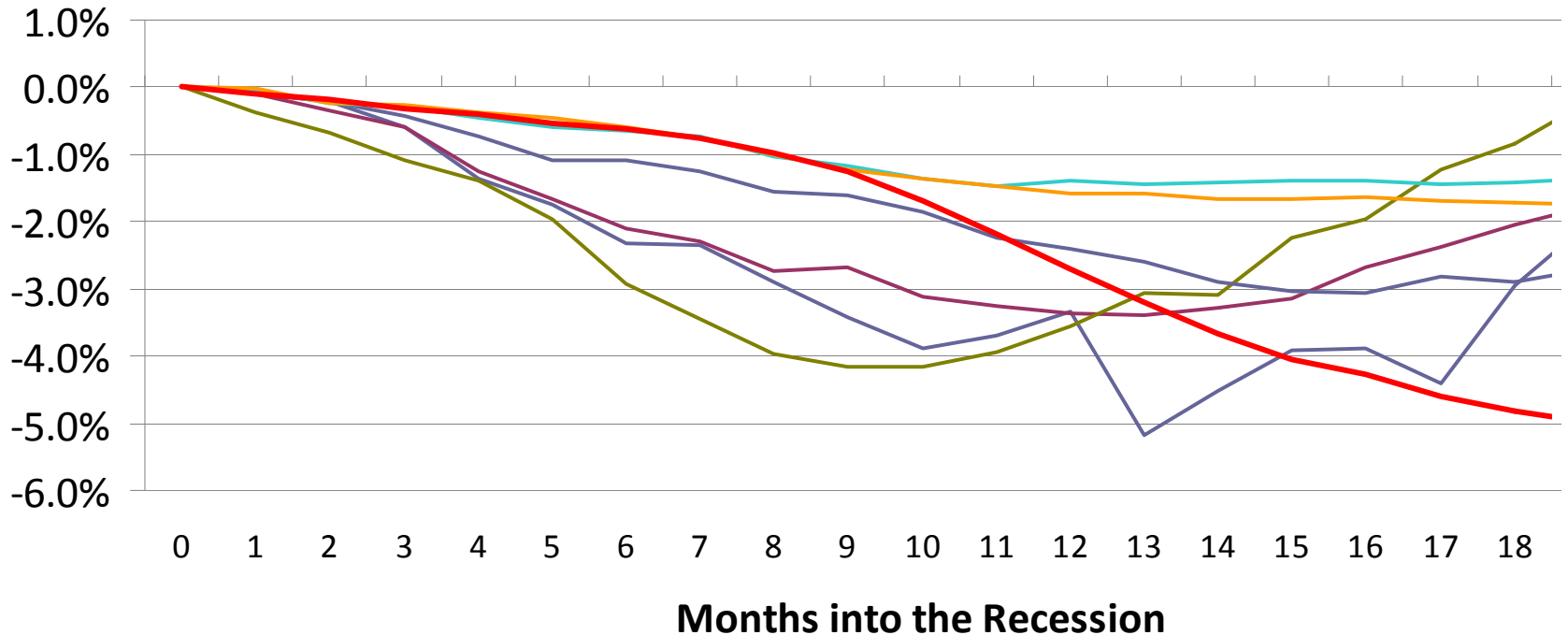
# Unemployment Rate Seasonally Adjusted





# Accumulated Employment Losses as % of Pre-Recession Employment

— 1948 — 1953 — 1957 — 1981 — 1990 — 2001 — 2008



# Cuts are Not Over

## AUTO NEWS

AUTO NEWS | FORD | GM | CHRYSLER | AUTO SHOWS

POSTED: OCT. 8, 2009

CEO REPORT

### More jobs to be cut at GM, CEO's report says

BY TIM HIGGINS  
FREE PRESS BUSINESS WRITER

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Three months into its life after bankruptcy, General Motors Co. has more workers than called for by year's end under its previously stated turnaround plan.

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GM said Wednesday it will cut 18,200 jobs and salaried ranks by 18.2% in its progress report by CEO Fritz Koenig.

Most of the extra positions are held by temporary workers given GM's recent plans to add shifts at plants. It is unclear how many more positions will be cut.

“GM's hourly employment fell 21% to 49,200 workers as of Wednesday -- about 9,200 short of the turnaround plan's year-end goal.”

“GM's U.S. salaried workforce has dropped 18.2% to 24,300 as of Thursday, which is about 1,300 short of the turnaround plan's year-end goal.”



# Some Hiring May Be on the Horizon Due to...

- Market recovery
- Underlying demographics
- Labor cost parity possible under 2007 and 2009 agreements with the UAW
- Technological changes
  - Need to meet new fuel economy and GHG mandates
  - Improved safety
  - Increased electronics content for safety, connectivity and entertainment

...But it may not be much,  
and it may not be here.

# News About Automotive Hiring!

## Chrysler trying to refit Fiats so they sell in US

By TOM KRISHER (AP) – Sep 25, 2009

DETROIT — Chrysler thinks its future may be in a new lineup of smaller cars based on models from Italian partner Fiat. The question is how to make them for Americans put off by stiff suspensions, firm seats and — perish the thought — not enough cupholders.

The problem is further complicated because Americans generally are plumper and taller than Western Europeans, and they're used to driving fatter and longer cars on wider roads.

It's a dilemma faced by nearly all automakers as they try to hold down development costs by tailoring cars to sell around the globe. But at no company is the problem more acute than Chrysler, where a wholesale lineup change is needed quickly to boost sagging sales.

“...Chrysler's 25 percent cut in salaried employees last year has left it with too few engineers and designers to get the work done on multiple models...Chrysler managers have spoken with union officials about bringing back laid-off designers, and the person said there is discussion of contracting to hire engineers and other professionals who took buyout or early retirement offers.”

## Bringing Back Workers

“Walker Corp., a 56-year-old Ontario business that makes airbag, seat and audio parts for Toyota...is actually looking to add people with good math and computer skills to its work force of about 180.”

“Precision Stamping Inc. in Beaumont will bring back some laid-off employees and put a second shift back to work...”

Comments 1 | Recommend 1

## Inland auto suppliers see bump in sales, but uncertain future

CLICK PLAY  
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06:43 PM PDT on Saturday, October 3, 2009

By JACK KATZANEK  
The Press-Enterprise

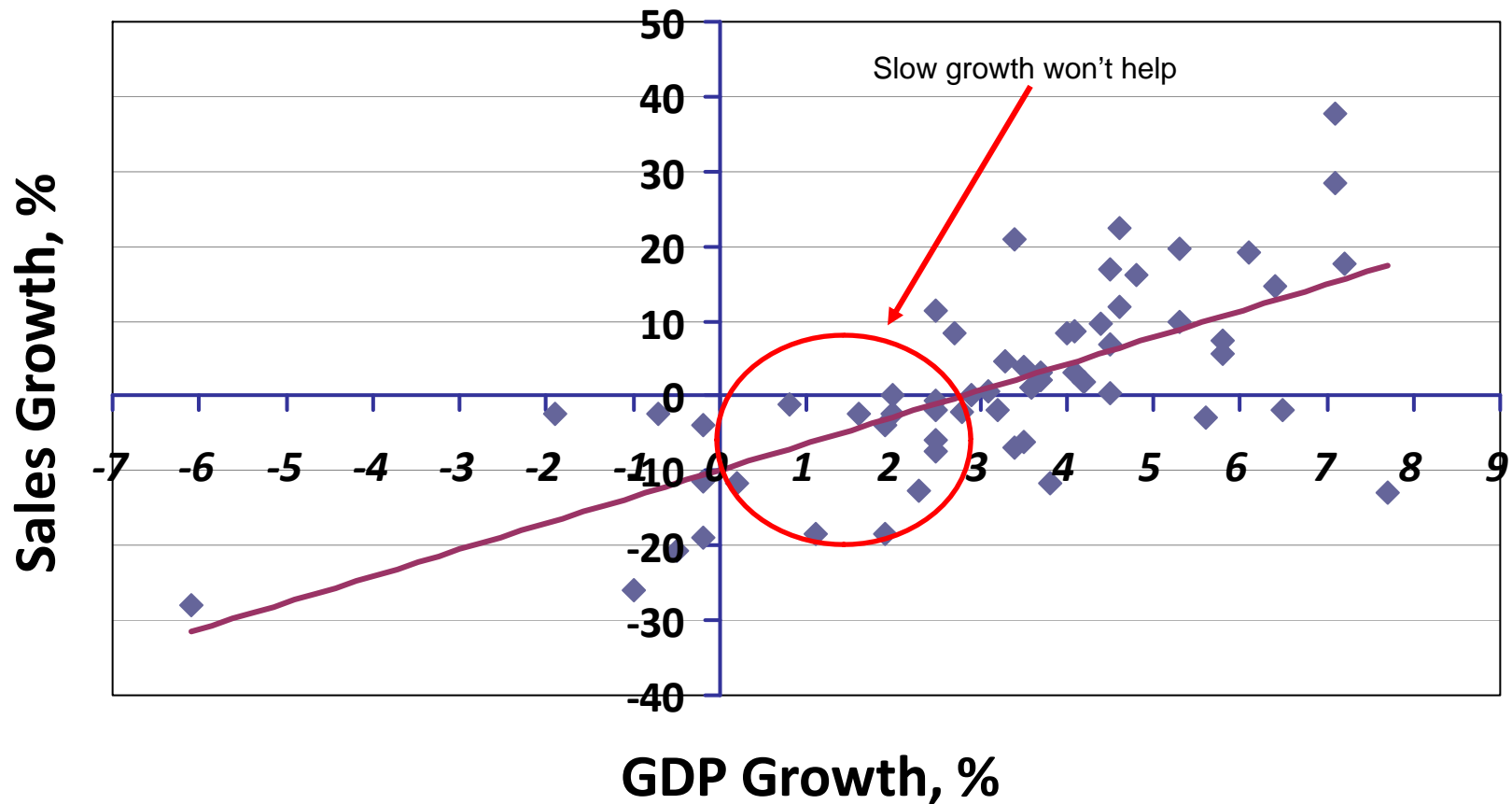
Six months ago, two of the United States' three legacy automotive manufacturers had futures that were so cloudy, not everyone believed they could continue operating.

Now, the bankruptcies for General Motors Corp. and Chrysler LCC have come and gone, and those companies, along with Ford Motor Corp., the third of Detroit's Big Three, are learning how to run streamlined businesses and still turn out cars and trucks.

But...for how long?

# Need 3% GDP Growth To Have Positive Sales Growth,

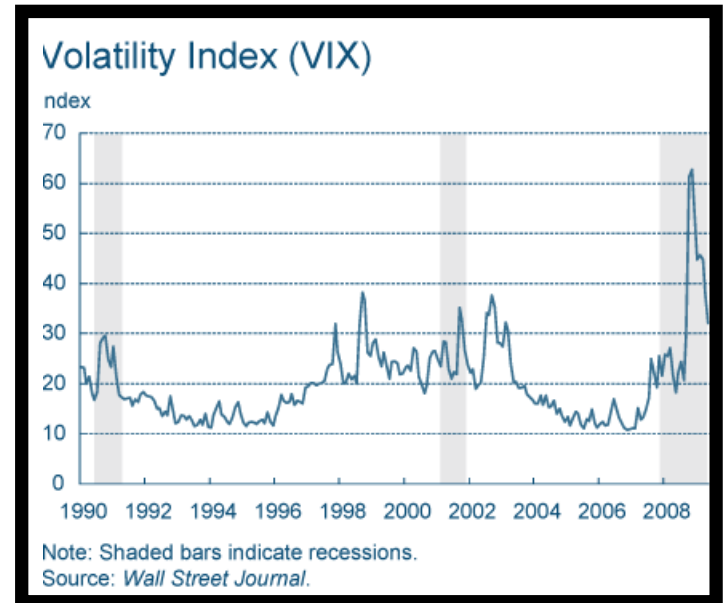
US GDP Growth Rate and Vehicle Sales Growth Rate, 1950-2009\*



# Wild Cards



	CANADA	CAD	0.9512	0.8883
	CHINA	CNY	7.3169	6.0910
	EURO	EUR	0.6644	0.6100
	JAPAN	JPY	109.00	102.00
	SINGAPORE	SGD	1.3712	1.2630
	HONG KONG	HKD	7.0043	6.4072
	NEW ZEALAND	NZD	1.1646	1.0675
	MYR		3.2536	2.7818



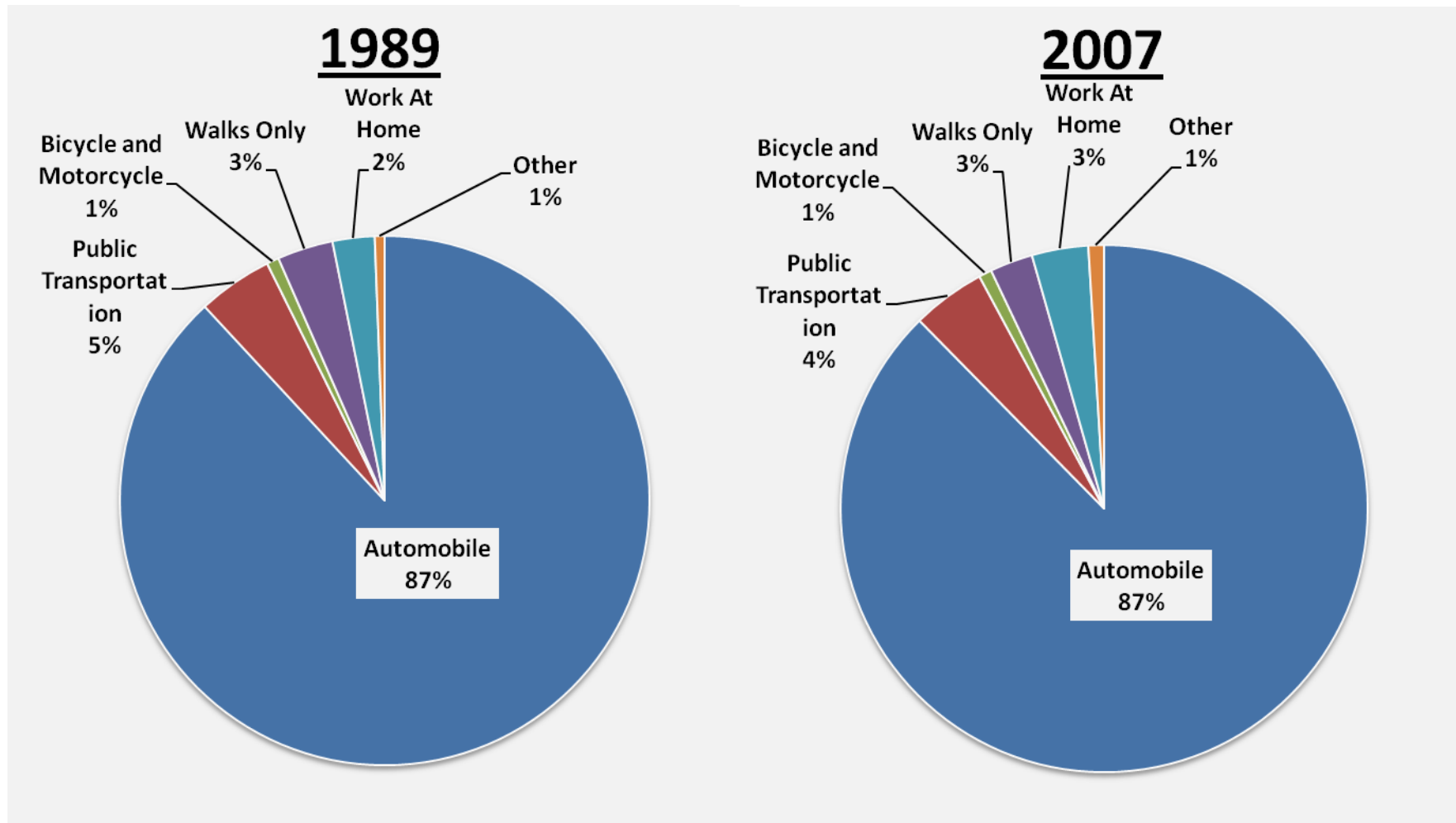
# Reasons to Believe in a Rebound



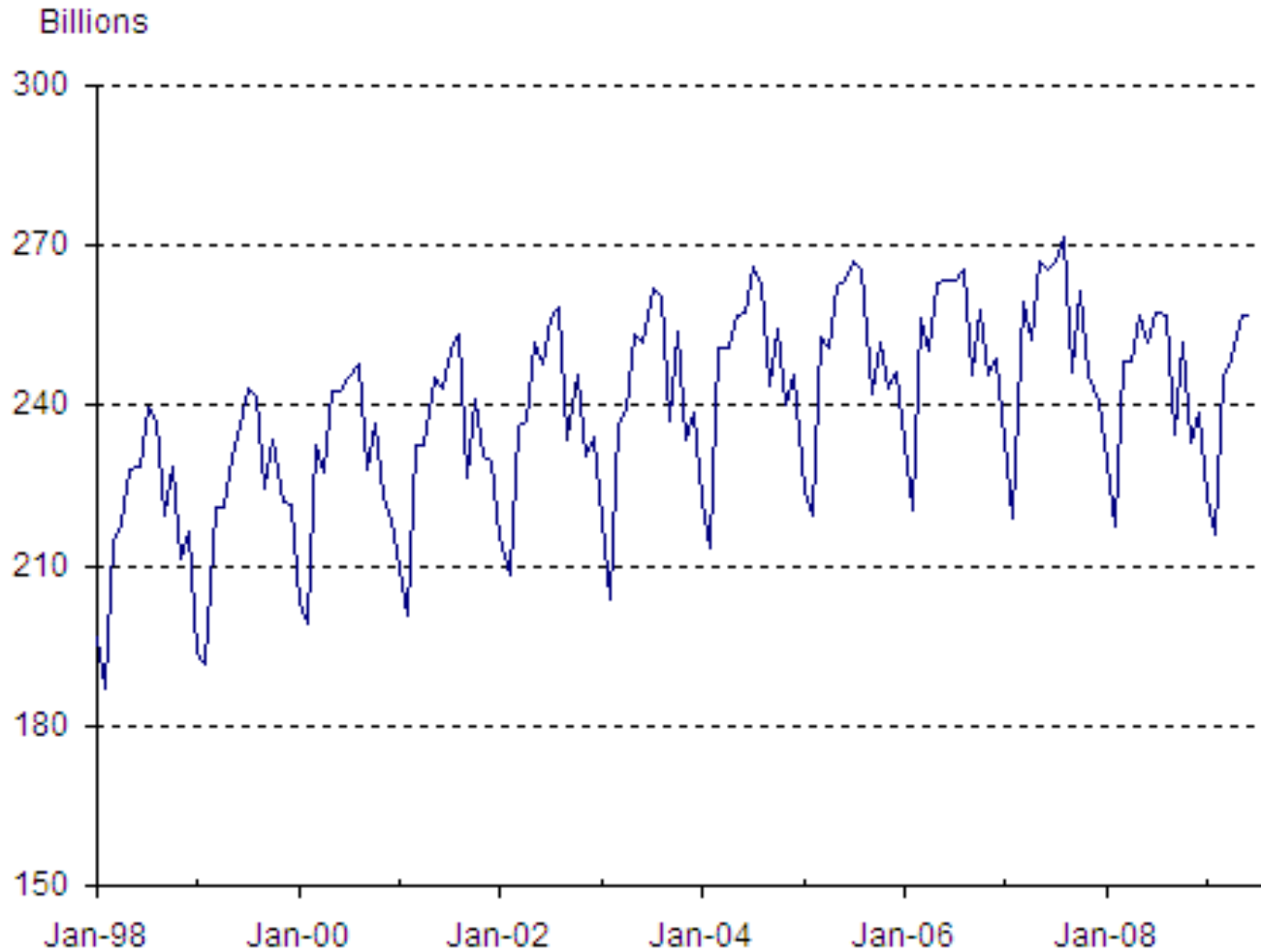
- No comprehensive public transportation system
- Vehicle miles travelled increasing
- Vehicles per household increasing in long-term
- Household formation increasing
- Vehicle stock decreased sharply and must be replenished
- Household wealth indicators stabilizing

# No Substitute

## U.S. Principal Means of Transportation to Work



# U.S. Highway Vehicle-Miles Traveled

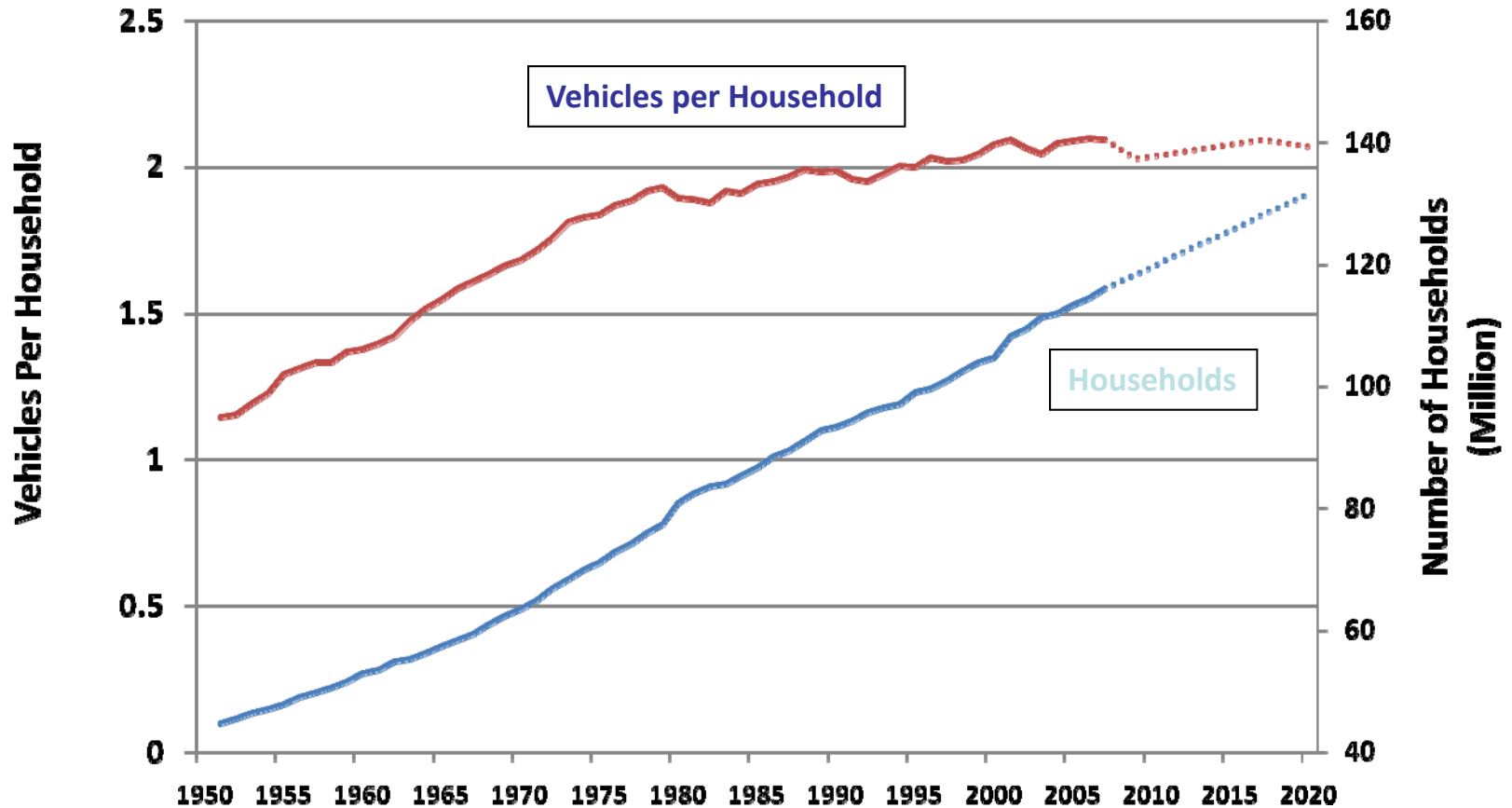


Source: USDOT, RITA, BTS, August 2009

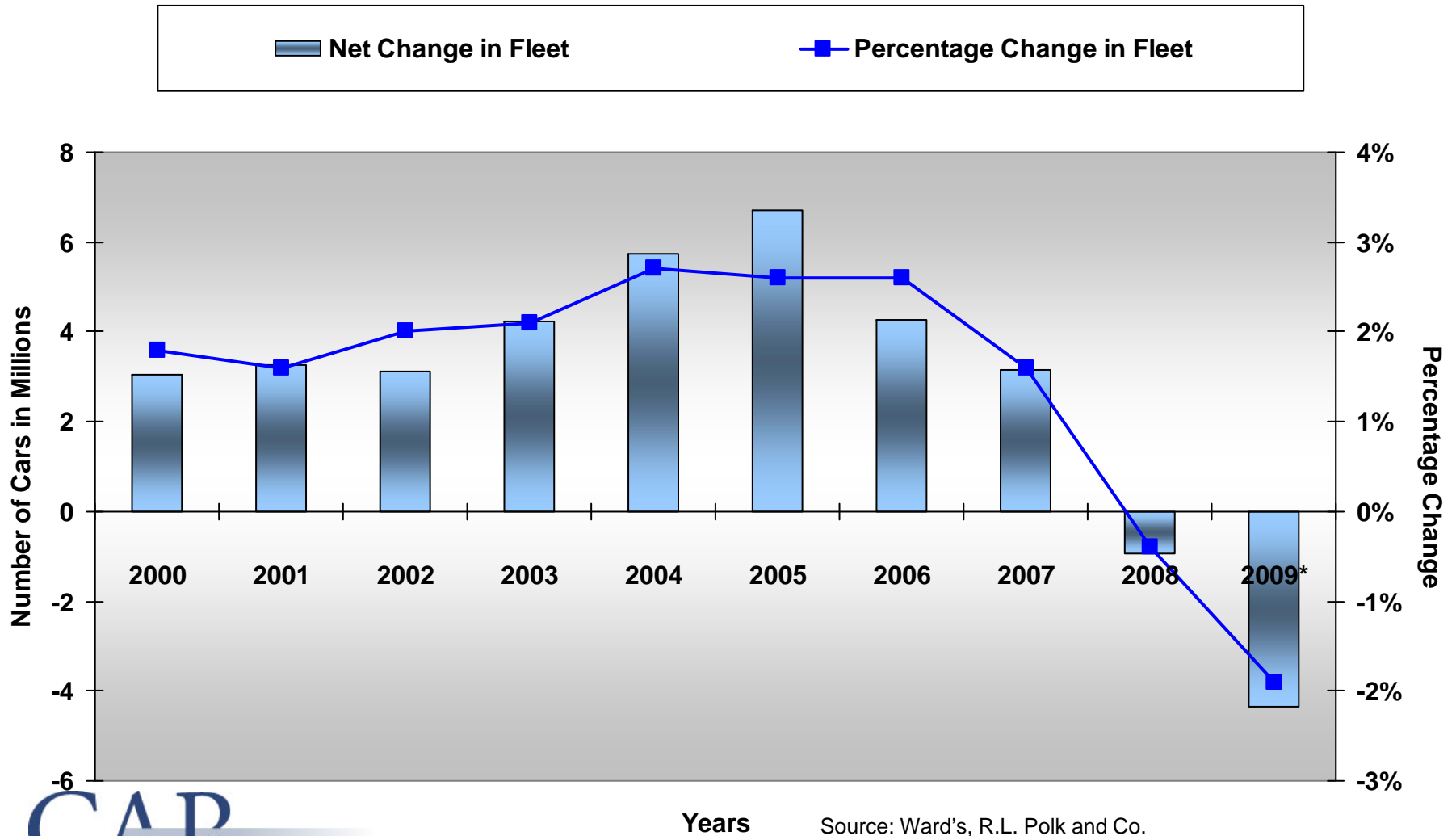


# Number of Households and Vehicles Per Household

(adding 10 million households means  
20 million+ more operating vehicles by 2016)

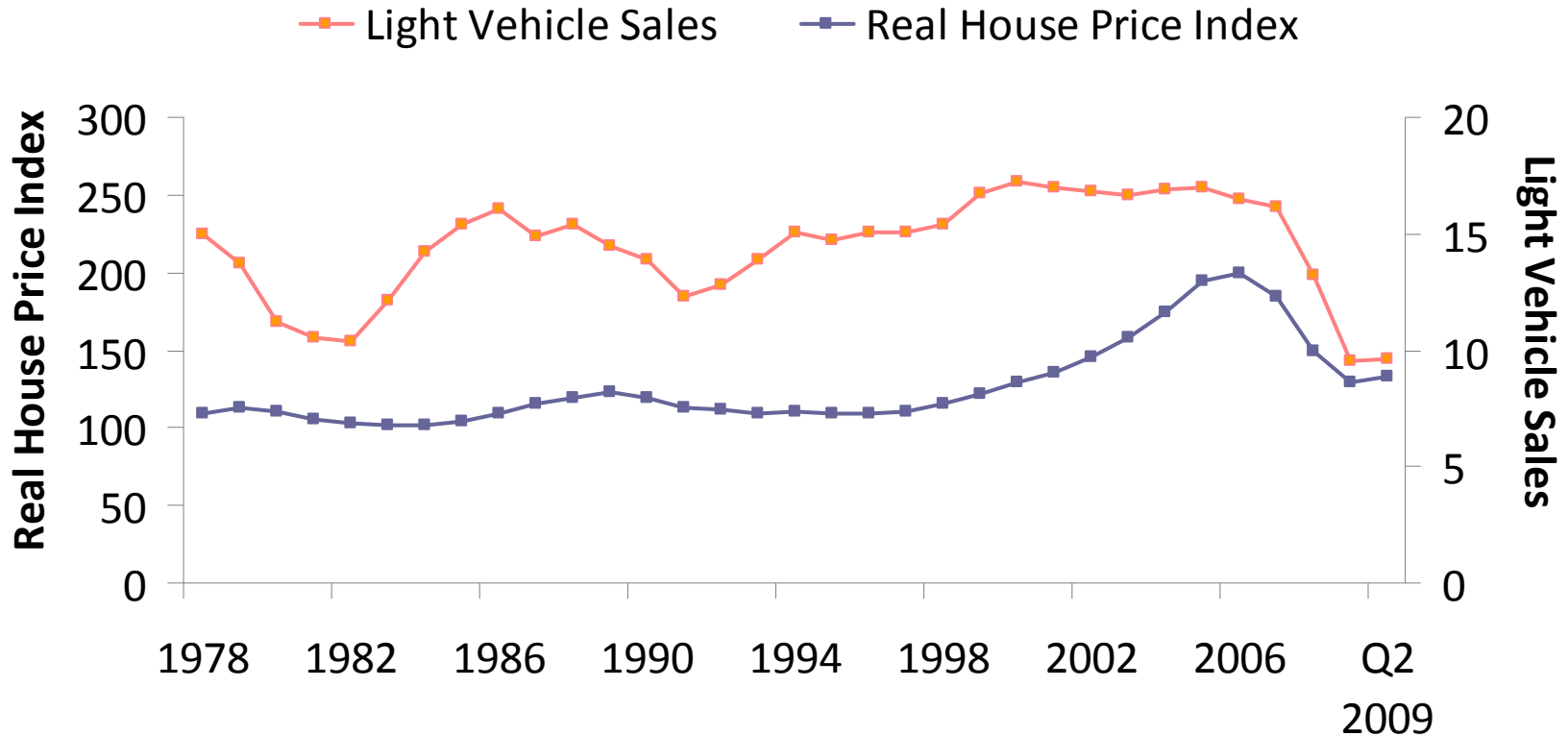


# Change in Auto Fleet – 2000 to 2009



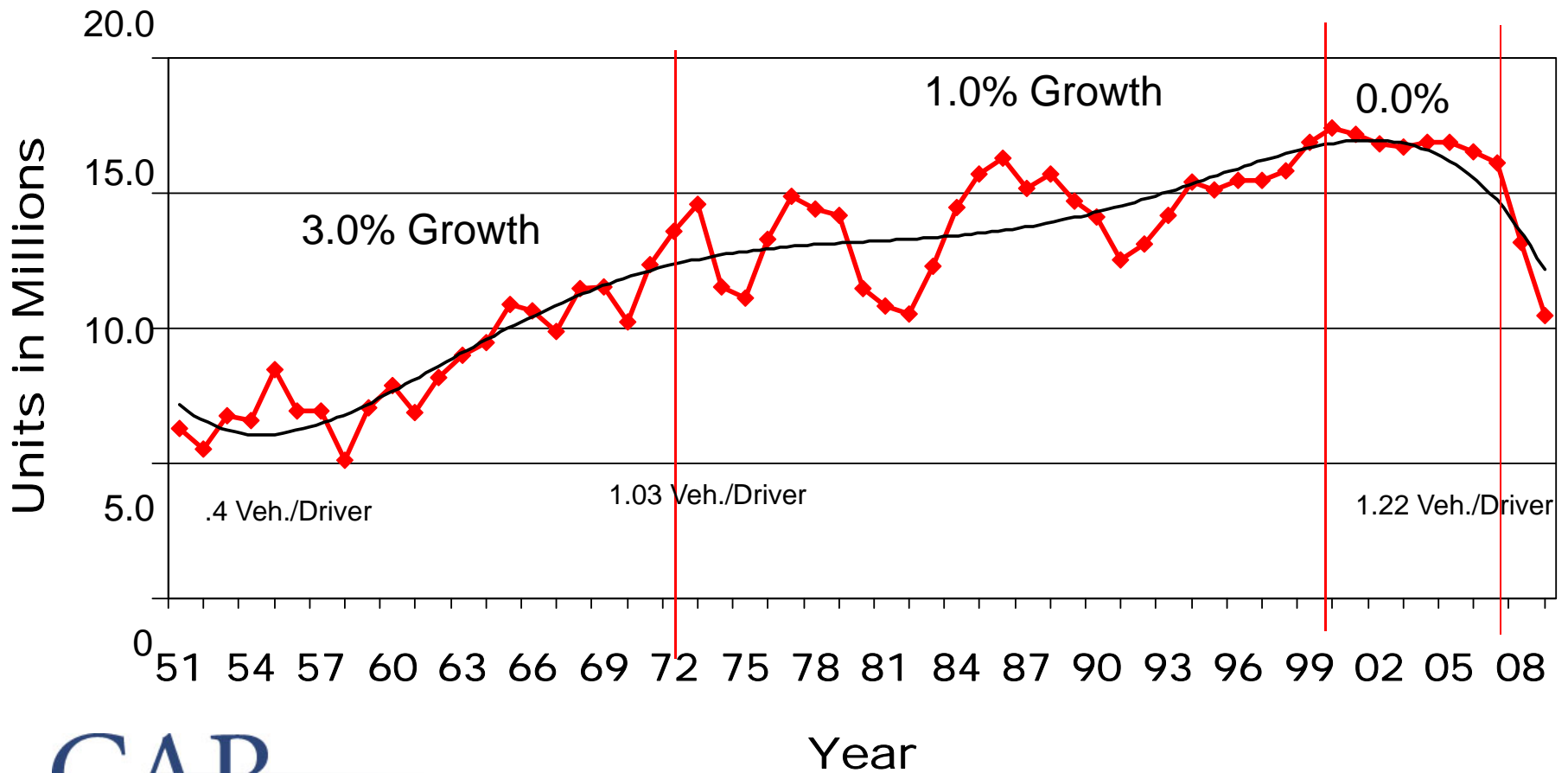
# House Prices are Bottoming out

## House Price and Vehicle Sales

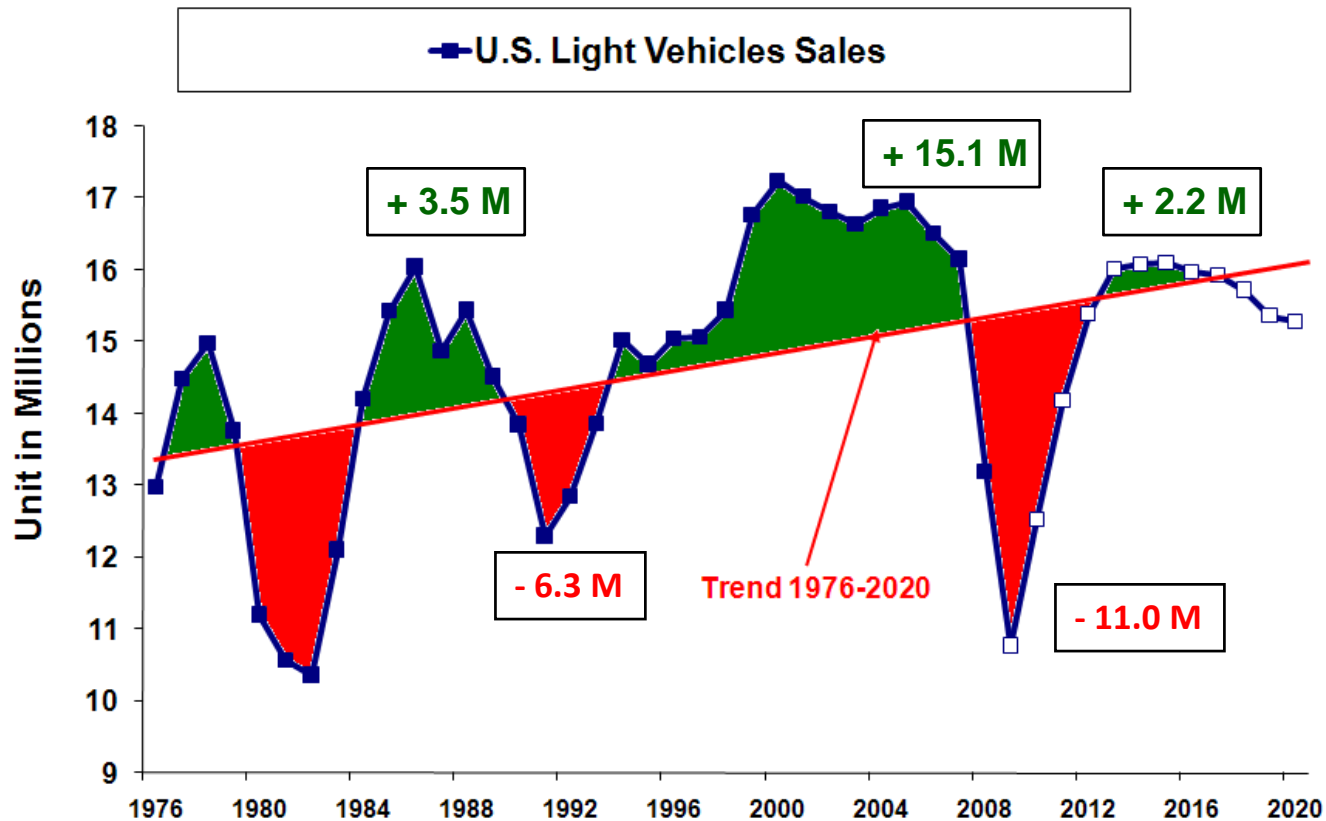


# U.S. Motor Vehicle Sales

## 1951 - 2009



# But Maybe Not a Very Big Rebound... New Long-Term Forecast from CAR



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
U.S. Sales (Millions)	10.8	12.5	14.2	15.4	16.0	16.1	16.1	16.0	15.9	15.7	15.4	15.3
May 09 Forecasts	11.0	13.2	15.0	15.9	16.5	16.8	16.7	16.5	16.3	15.9	15.8	15.9

Rebound: Coming, but not huge

Not clear where the jobs will be,  
or how many new workers will  
be required

We do know that the vehicles  
themselves will be different

# Four Main Categories of Automotive Technology Change...

- Powertrain



- Materials and Forming



- Energy and Fuels



- Electronics, Software and Controls



What are the consequences  
of the retirement/SAP “brain drain”?



# Can You Teach Old Dogs New Tricks?

- Yes, you can...but...
  - It's not always cost effective from a personal or societal standpoint
  - Need extra work years or much higher income to reap positive ROI
  - Works best when its voluntary
  - Focused technical training yields more positive results for older trainees than academic degrees
  - Spending on improved job search and matching is more efficient for workers over 35
- Best option is to retain companies/workers
- Second best option is to attract other employers needing a similarly skilled workforce

# Where Will the “New Dogs” Come From?

- Industry upheaval has dampened labor market
- Despite the greening of the auto industry, careers are not seen as “sexy”
- As company market share shrinks, they will not need as many people, which leads to fewer openings
- We are studying labor demand and skill needs through the Program for Automotive Labor & Education

...Will there be enough “new dogs,” will the skills shortage drive competition for positions, and will the talent pool be large enough to support continued R&D and mfg. concentration here?



# Industry Partners Tell Us...

- They're concerned about the “pipeline” of future engineers & skilled trades workers
- Co-op and other experiential learning opportunities are KEY to preparing the future workforce
- Beyond the basics, educators should emphasize
  - Emerging technologies
  - Teamwork and communication skills
  - Business skills (budgeting, project management, etc.)
  - Working in a multi-cultural/global environment



# Education and Workforce Development Partners Tell Us...

- They're concerned about the “pipeline” of future students; students and parents need to be sold
- They want to be responsive to the auto industry, but...
  - Industry doesn't speak with one voice
  - Local industry contacts may not be in tune with future trends
  - Difficult to get the attention of higher level industry executives
  - Education timeline is 2-4+ years ahead of hiring horizon
- Fewer and fewer co-op and other experiential learning opportunities are available
- Budget constraints make it tough to stay on top of latest technology—to succeed takes creativity, collaboration and industry partnerships

# The Program for Automotive Labor and Education



- A partnership of industry, labor, education, training, workforce development, and government dedicated to meeting the automotive workforce needs of tomorrow
- Research
  - Conduct regular updates of “Beyond the Big Leave”
  - Brief members on public policies and programs
  - Provide members with broad automotive industry intelligence and data
- Networking
  - Hold quarterly meetings at company locations
  - Connect existing collaborative programs/partnerships
  - Share best practices
  - Link members to automotive economic developers
- Outreach
  - Support student outreach
  - Increase visibility for automotive workforce hiring and training issues in public discourse

# Comments/Questions