

The North American Automobile Industry:

Issues, Trends and Revenue Implications

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Center for Automotive Research

- **Independent non-profit research organization**
 - Don't pick winners or losers
- **Research activities**
 - Economics and Business Group
 - Manufacturing, Engineering and Technology
 - Transportation and Information Systems
- **Conference activities**
 - Management Briefing Seminars
- **Corporate, public sector, and academic interface**
 - Maintain relationships with industry, government agencies, universities, research institutes, labor organizations, and other major stakeholders of the international automotive community
- **Focused on future trends**

It's All About Product....Right???



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WHOOPS!



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It's Not Hopeless



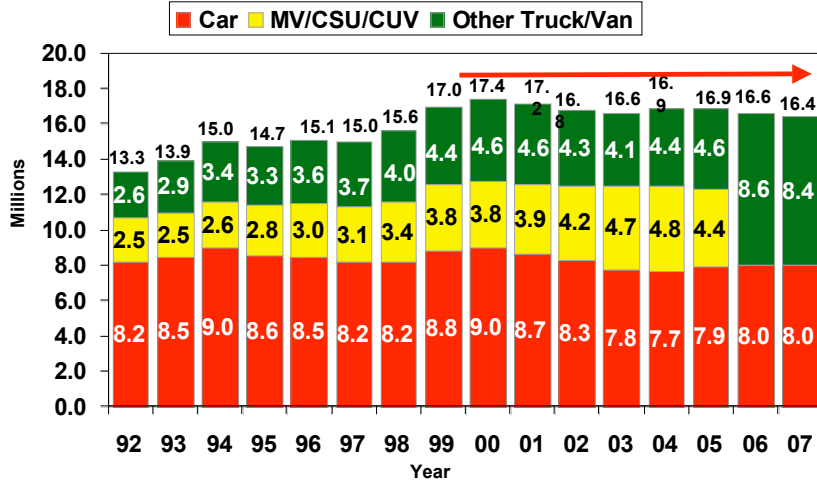
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What Affects Corporate Revenues Affects Jobs

- ▲ Annual U.S. sales
- ▲ Segment shifts
- ▲ Increased competition for segment market share
- ▲ Products built at a plant
- ▲ Restructuring
- ▲ Miscellaneous

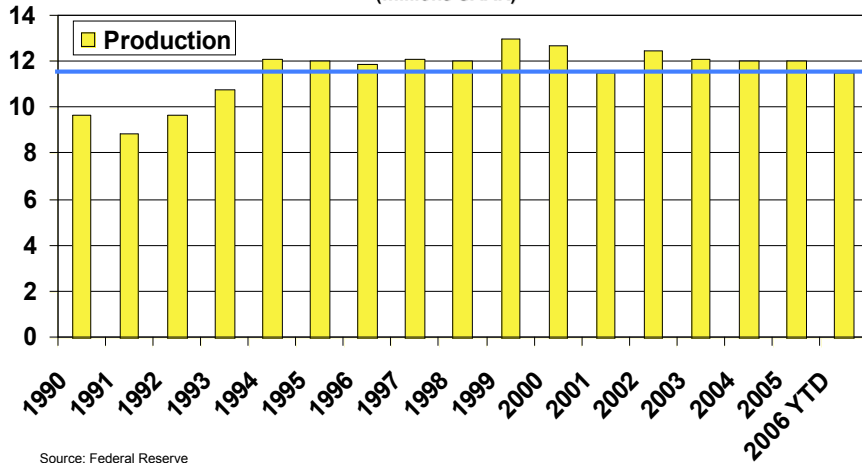
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Stuck on a Plateau New Light Vehicle Sales 1992 - 2007



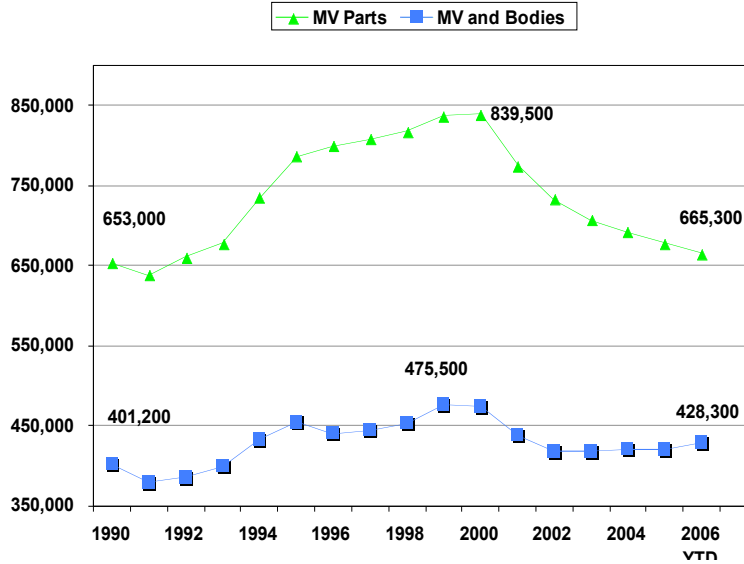
7 FTA Revenue Estimating Conference—Portland, OR 9/17/06 2006 and 2007 estimates by RSQE

Production Remains Steady U.S. Motor Vehicle Production 1990 - 2006 (millions SAAR)



Source: Federal Reserve
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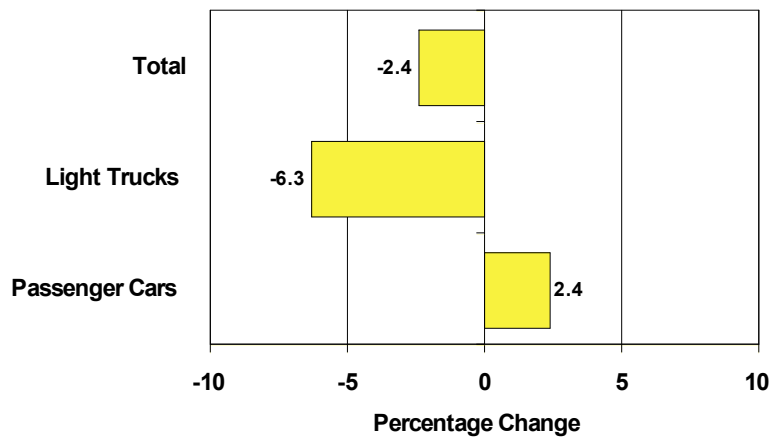
But Employment Has Fallen...



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U.S. Light Vehicle Sales Year-Over-Year Percent Change

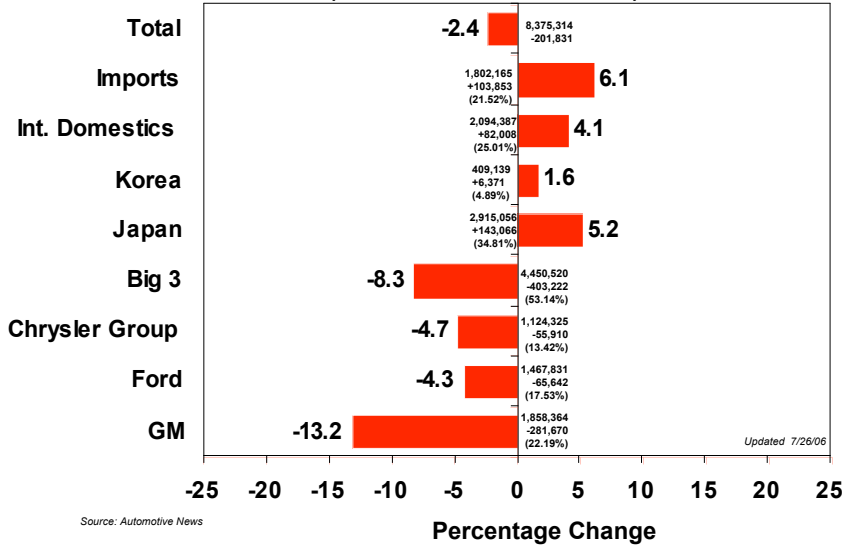
(1st Half, 2006)



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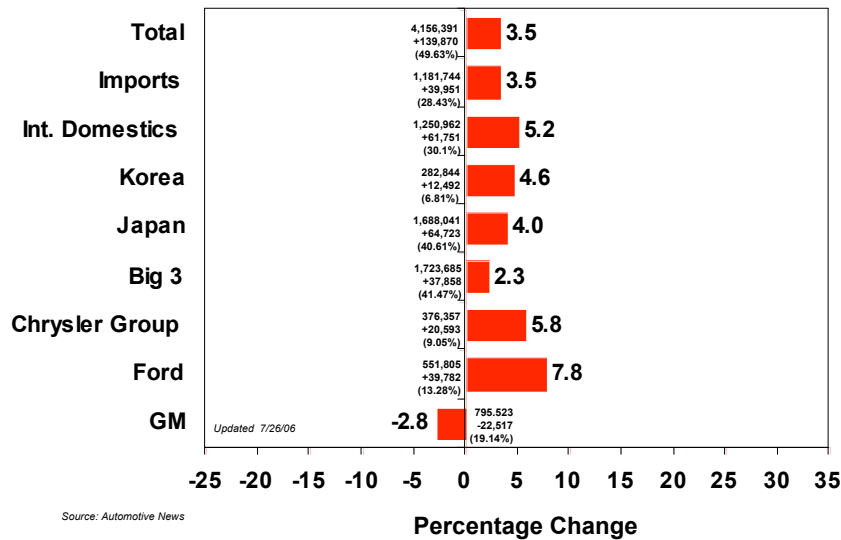
Percentage Change in U.S. Sales of Light Vehicles

(2nd Quarter 2006 vs. 2005)



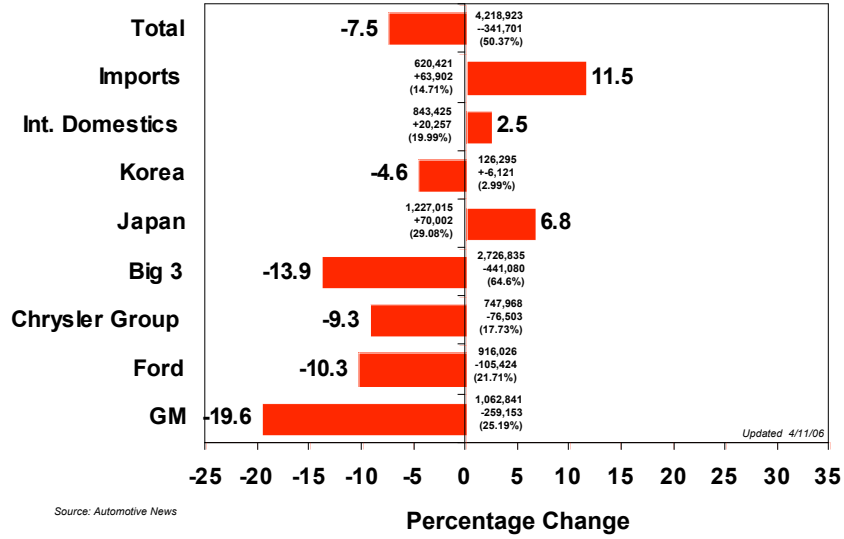
Percentage Change in U.S. Sales of Passenger Cars

(2nd Quarter 2006 vs. 2005)



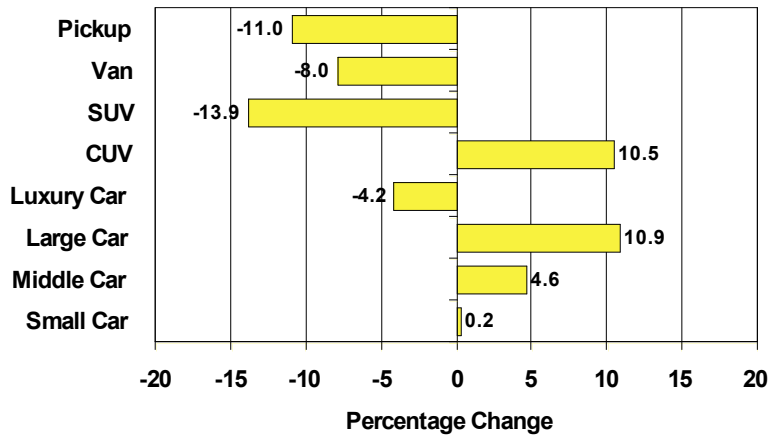
Percentage Change in U.S. Sales of Light Trucks

(2nd Quarter 2006 vs. 2005)



Segment Breakdown - U.S. LV Sales Year-Over-Year Percent Change

(1st Half, 2006)

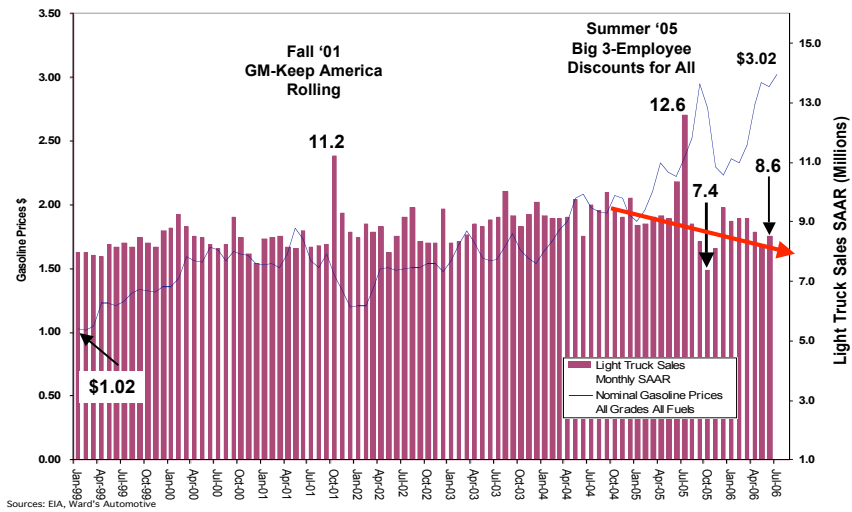


Truck Sales Headed Down.....



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Light Truck Sales No Longer Immune to Gas Price Fluctuation



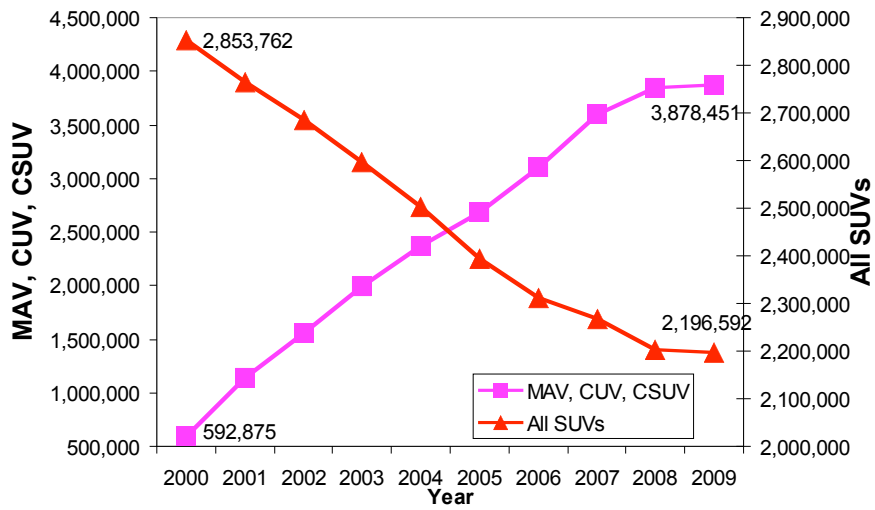
Sources: EIA, Ward's Automotive
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New Vehicle Rollouts—2007



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SUVs & CUVs



Source: CSM, JD Power

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CUVs Built in the Upper Midwest



Alliston, Ontario
Acura MDX: Sep 2006
Honda MAV: Jan 2009

Oakville, Ontario
Ford Edge, Lincoln MKX:
October, 2006
Ford Fairlane,
Lincoln CUV:
Mar 2008



East Liberty, OH
Element
July 2008



Delta Township, MI
GMC Acadia,
Saturn Outlook: Nov 2006
Buick Enclave: April 2007
Chevrolet CUV: June 2008



CAMI—Ingersoll, Ontario
Suzuki XL7: August 2006
Chevrolet Equinox: July 2009
GMC CUV, XL7: Jan 2010

Light Trucks and The Product Development Cycle

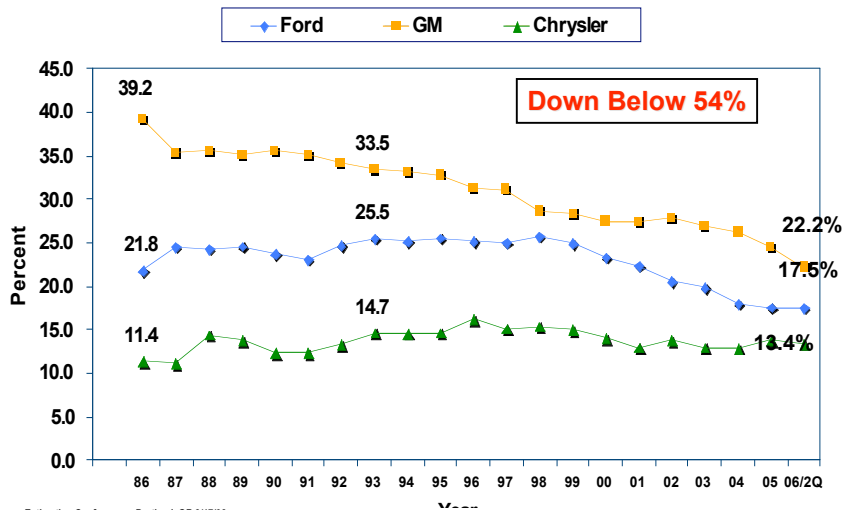
- **6-12 month business case development**
 - A number of factors must be considered including return on investment (ROI); market surveys; forecasts of market size, sales, fuel costs, and future consumer preferences; along with technology availability.
 - Capacity on existing lines, powertrain availability
- **24 month product development engineering cycle**
- **Many market factors can change in this period—gas prices, etc.**
- **It is remarkable when a company launches a new vehicle that consumers want—at the exact time they want it.**



This Didn't Work . . .

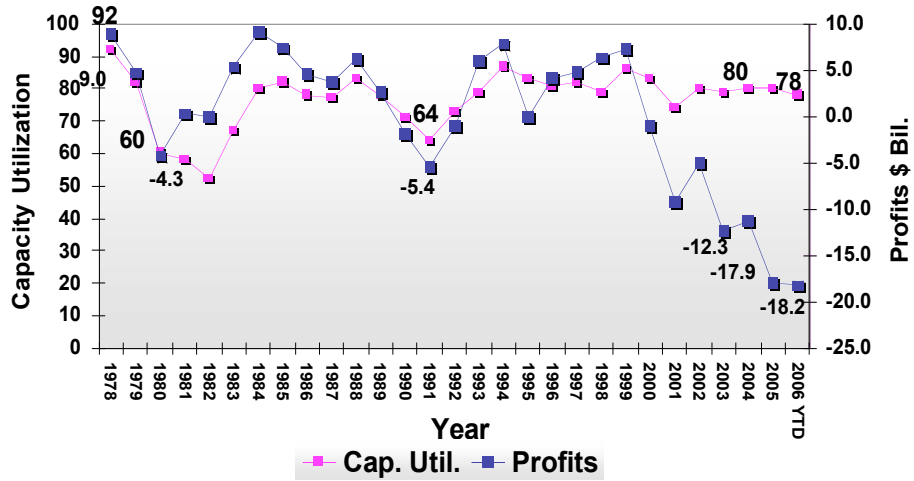
“Detroit 3” U.S. Market Share 1986 – 2006/2Q

(Sales of Detroit 3 N. American “owned” production)



Over \$60 Billion in Losses Since 2000!

U.S. Automotive Capacity Utilization and Profits
1978 - 2005

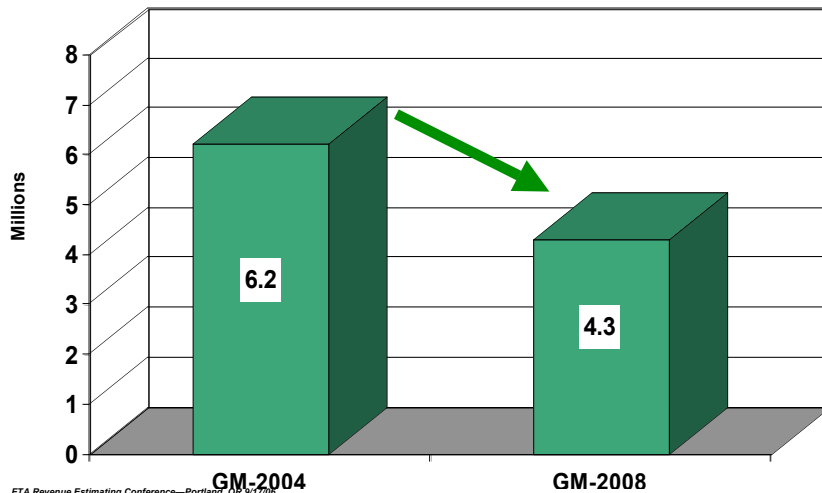


Source: Federal Reserve, U.S. DOC/BEA
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So . . . GM Is Preparing To Be Smaller

2004-2008 Change in North American Vehicle Production Capacity

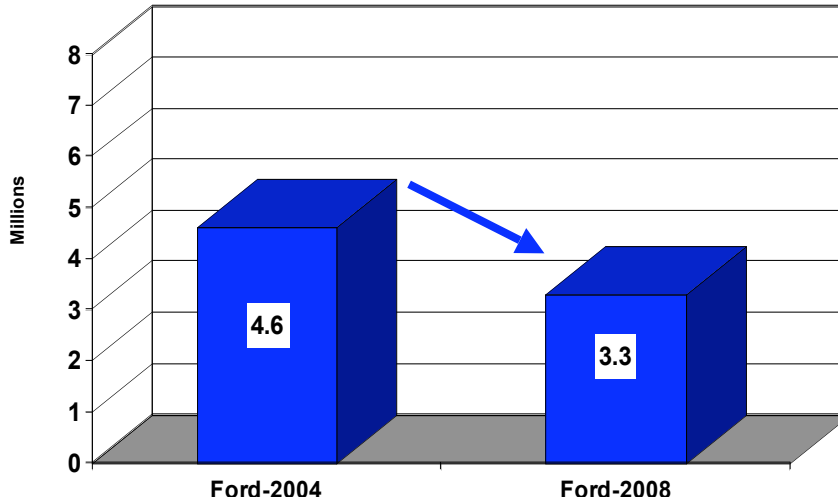


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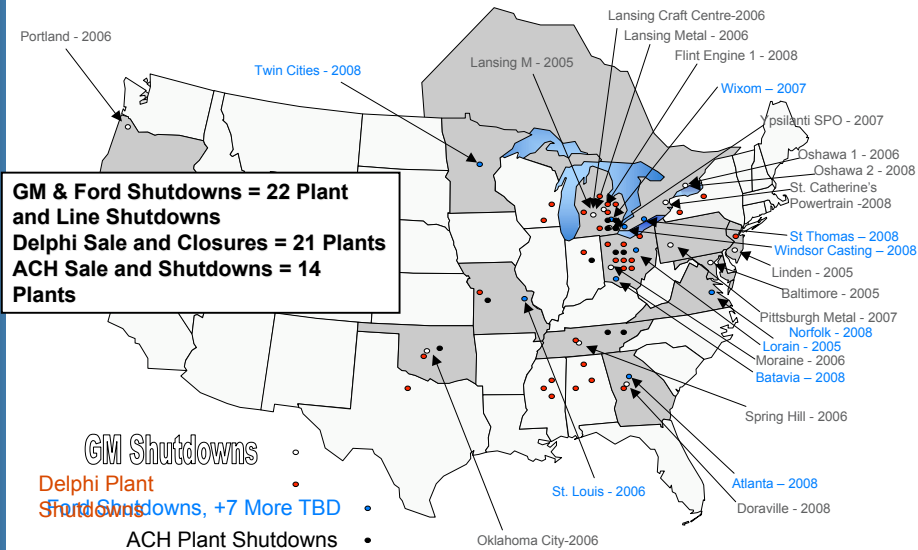
Ford Will Also Shrink

2004-2008 Change in North American Vehicle Production Capacity



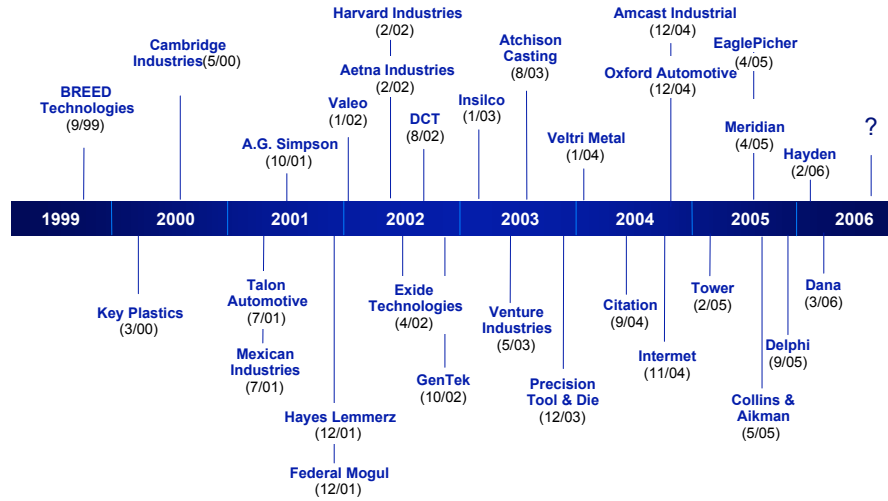
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U.S. Announced and Executed Closures 2005-2008



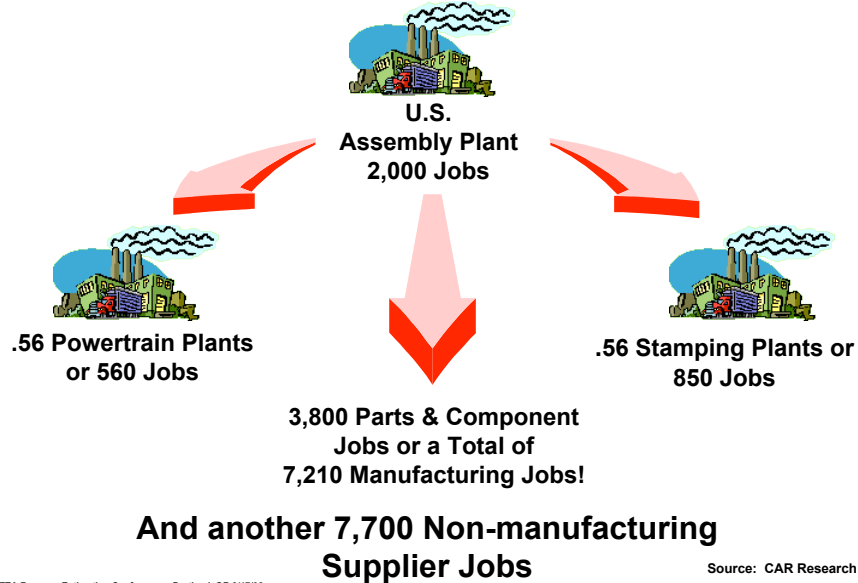
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Major Supplier Bankruptcies— Not Everyone Will Make It.....



Source: Kim Korth, IRN presentation to OESA 2005 Nashville Regional meeting
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Vehicle Assembly is Huge Driver of Economy



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Approximate National
Automotive Manufacturing Multiplier
of

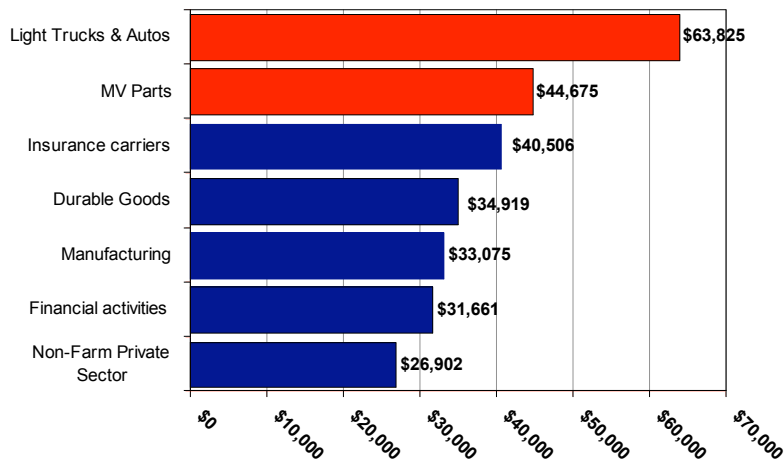


6.5 U.S. Jobs
for each Job at a
U.S. Motor Vehicle Firm

Source: *Contribution of the U.S. Motor Vehicle to the Economies of the United States, California, New York, and New Jersey*, Center for Automotive Research, 2003.
Contribution of Toyota to the Economies of Fourteen States and the United States in 2003, Center for Automotive Research 2005
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2003 Average Annual Salary (U.S.)



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For Example: Upper Midwest Pickup and SUV Assembly

Company	State	Plant	Employment	Production	Capacity
DCX	Michigan	Jefferson North	2,589	278,631	248,160
DCX	Missouri	St Louis North	2,109	147,400	165,440
DCX	Ohio	Toledo North	2,013	220,718	201,536
DCX	Ohio	Toledo South	974	96,381	159,800
DCX	Michigan	Warren	4,056	231,423	242,520
Ford	Michigan	Dearborn Truck	2,760	207,263	225,600
Ford	Missouri	Kansas City 2	2,786	228,744	208,304
Ford	Michigan	Michigan Truck	3,040	138,700	199,280
GM	Michigan	Flint	2,414	176,066	122,952
GM	Indiana	Fort Wayne	2,587	260,760	257,560
GM	Ohio	Moraine	3,580	299,020	241,204
GM	Ontario	Oshawa Truck	3,435	314,810	236,504
GM	Michigan	Pontiac Assembly	2,416	218,583	234,248
Toyota	Indiana	Princeton West	2,298	172,273	173,712
			37,057	2,990,772	2,916,820

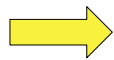
Source: The Harbour Report 2006

Upper Midwest Light Truck Significance

37,057 Employees

x 7.5 Multiplier*

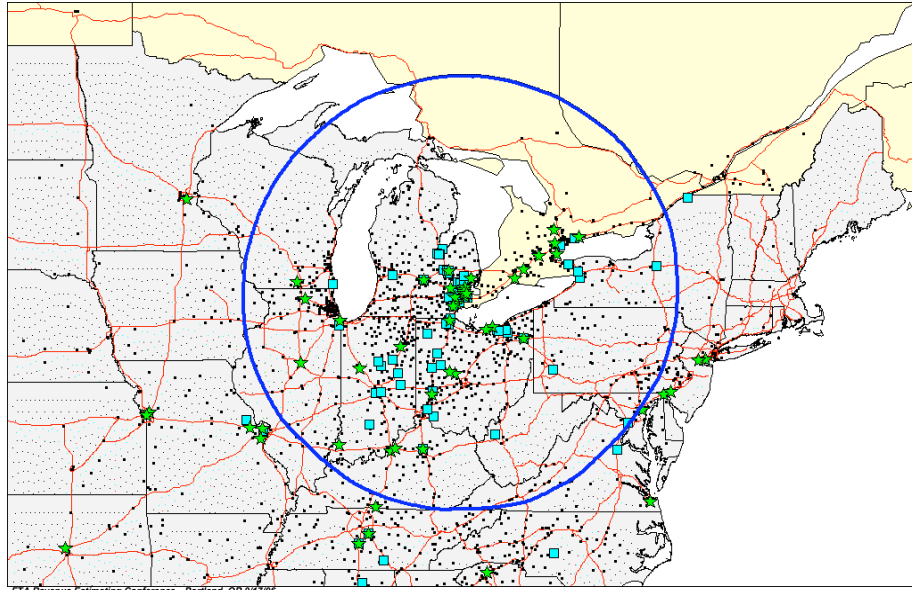
≈ 280,000 Jobs Impacted in Great Lakes Region



**This includes dealerships, of which
1/3 of Ford and GM dealers are losing money**

*Source: CAR Research

An Integrated Industry



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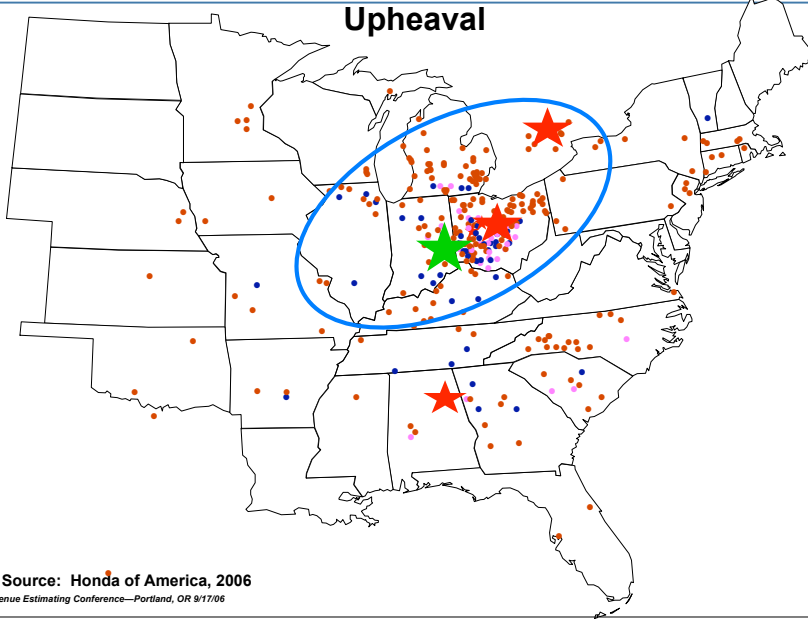
New International Assembly Facilities as of 2005

Company	Location	Employment as of 2004	Total Investment through 2005 (\$ million)	Actual Capacity as of 2005
BMW	Spartanburg, SC	4,600	2,200	200,000
CAMI-GM	Ingersoll, ON	2,775	500 (original investment)	250,000
Honda	Lincoln, AL	4,300	1,200	300,000
	Alliston, ON	4,375	1,500	390,000
	East Liberty, OH	2,230	920	240,000
	Marysville, OH	4,315	3,200	440,000
Hyundai	Hope Hull, AL	2,000	1,100	300,000
Mercedes-Benz	Vance, AL	4,000	2,200	160,000
Mitsubishi	Normal, IL	1,900	850	240,000
Nissan	Canton, MS	4,100	1,430	400,000
	Smyrna, TN	6,700	1,600	550,000
NUMMI-GM	Fremont, CA	5,715	1,300	370,000
Subaru	Lafayette, IN	1,315	1,350	262,000
TMM-Canada	Cambridge, ON	4,342	2,400	250,000
TMM-Indiana	Princeton, IN	4,659	2,600	300,000
TMM-Kentucky	Georgetown, KY	6,934	5,310	500,000
Total		64,260		5,152,000

Source: Automotive News, Harbour Report, CAR research

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Honda in the Midwest—Minimize Costs, Logistics, Supplier Upheaval

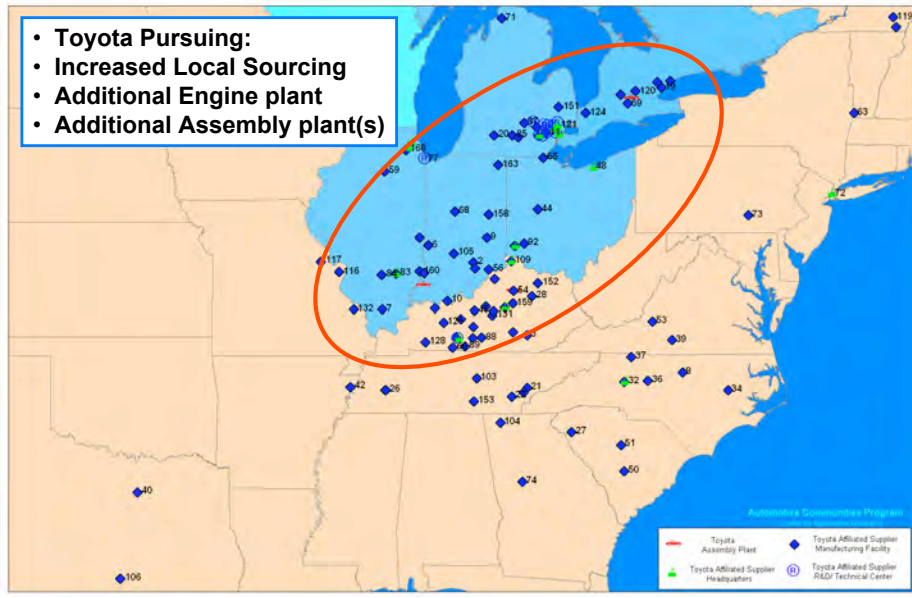


Source: Honda of America, 2006

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Toyota in the Midwest (and beyond)—Minimize Costs, Logistics, Supplier Upheaval?

- Toyota Pursuing:
- Increased Local Sourcing
- Additional Engine plant
- Additional Assembly plant(s)



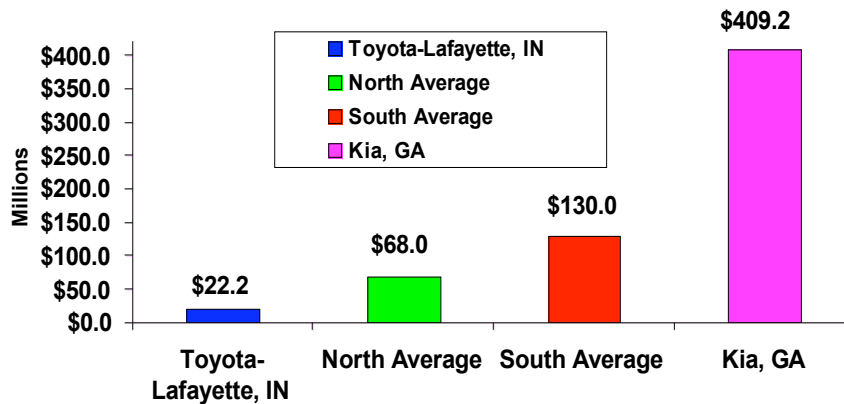
Announced International Assembly Facilities: 2006-2008

Company	Location	Employment	Investment (\$ million)	New Capacity
TMM-Texas	San Antonio, TX	2,000	800	150,000
TMM-Texas (Addition)	San Antonio, TX	-----	50	50,000
TMM-Canada	Woodstock, ON	1,300	650	100,000
TMM-Canada (Addition)	Woodstock, ON	700	300	50,000
Toyota-Subaru	Lafayette, IN	1,000	230	100,000
Kia	Troup County, GA	2,500	1,200	300,000
Honda	Greensburg, IN	1,500	550	200,000
Total		9,000		950,000

Source: Automotive News, Harbour Report, CAR research

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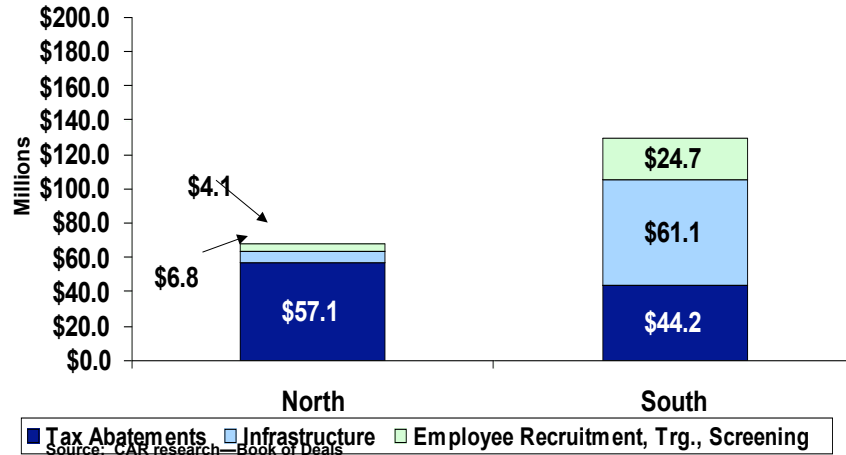
Average Incentives Compared to Kia and Toyota 2006 Announcements



Source: CAR research—Book of Deals

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Average Incentive Comparison (OEM Plants 1993-2005)



Automotive Jobs Drive All Wages Up

▲ A Grant County (Indiana) example—10 county region:

- A county with significant automotive industry employment (>6%) has higher salaries in all industries.
- On average all jobs in a county will pay between 15% and 18% more than a similar county with low automotive industry employment.
- This is true even in fields unrelated to manufacturing or the automotive industry.

Developments

- ▲ Honda assembly plant in Indiana
- ▲ Honda engine plant in Ontario
- ▲ Honda transmission plant in Alabama
- ▲ Linamar Corporation (\$1B) in Ontario
- ▲ Chrysler to build Challenger (LX platform)
 - Where it would be built is big question—Brampton already on 3 shifts
- ▲ GM to build Camaro in Ontario
- ▲ Ford upgrading 3 Mexican plants over several years
- ▲ Kia assembly plant in Georgia

Developments

- ▲ Toyota to double the amount of hybrids it offers by early next decade
- ▲ Hybrid Accord sales dropping off—other hybrids?
 - cancelled
- ▲ GM investing \$330 million at Warren (MI) transmission plant—new six speed
- ▲ Ethanol (E-85)—alternative fuels becoming just as important as alternative powertrains
- ▲ Ford investing \$1 billion in MI—potential 13,000 direct jobs—56,000 with indirect in MI, potential for additional 32,000 jobs across region

A Recap: What Affects State Revenues?

- ▲ **Annual U.S. sales** —mixed with sales of imported vehicles
- ▲ **Segment shifts** —gas prices catch some automakers off guard, movement down-segment in times of tight money (recession)
- ▲ **Increased competition for segment market share** —most areas of former Big 3 strength have been matched by new U.S.-based international vehicle companies
- ▲ **Products built at a plant** —falling sales can jeopardize a plant's future (e.g., St. Louis—Explorer)
- ▲ **Restructuring** —Ford and GM downsizing: less employees, direct impact on suppliers
- ▲ **Miscellaneous** —tax abatements on new investment—both new structure and equipment within old structure

What's It All Mean?

- ▲ Big 3 production being replaced (slowly) by new U.S. facilities of international MV companies
- ▲ Productivity improvements mean less jobs, short term,
- ▲ But, corresponding reduction in labor cost as percentage of total cost may attract more companies to manufacture in the U.S.
- ▲ Automobile industry will be (is) as strong as it has ever been, but individual communities and states may suffer, while others prosper

“...the management upheavals point to a new order in what remains one of the most important industries in the U.S. economy.”

—The Wall Street Journal, Saturday, September 16, 2006

QUESTIONS???

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