

WardsAuto Industry Study

Sponsored by DuPont and conducted
by Paramount Research



Introduction

Methodology

This study was conducted using an online research methodology. *WardAuto* provided Paramount Research with a list of automotive professionals. A total of two e-mail invites were sent to the subscribers asking for their participation. A random drawing for a \$100 cash prize was offered as an incentive to boost response. All e-mail contacts include an opt-out link allowing respondents to remove themselves from the study. In total, the survey remained open for two weeks.

Project Management

All aspects of this research project were under the sole control of Paramount Research. These duties include:

- Survey development and hosting
- Sample selection
- Data collection
- Data analysis
- Report writing and production

Response Rate

1,093 surveys were completed, resulting in an effective response rate of four percent.

Sample Statistics		
A.	Industry professionals who received an e-mail invite	25,591
B.	Completed surveys	1,093
C.	Effective response rate (B/A)	4%

As an incentive to increase study response, each survey respondent was entered into a random drawing for a \$100 cash prize. The survey invite reached 25,591 industry professionals and 1,093 completed the survey.

Respondent Profile

Type of Business

The largest segment of respondents works for a systems/components/parts manufacturer.

Half of the respondents (50%) indicated they work for a systems/components/ parts manufacturer. Another one in three in ten (36%) indicated vehicle manufacturer.

Type of Business	% Indicating
Systems/Components/Parts	50%
Vehicle Manufacturers	36%
Engine/Engine Services	13%

Base = All respondents or 1,093.

Job Title

Nearly half of the respondents work in engineering or design.

The largest segment of respondents (48%) work in engineering or design. More than one in ten work in corporate management (14%) or quality, testing or reliability (11%).

Job Title	% Indicating
Engineering/Design	48%
Corporate Management	14%
Quality, Testing or Reliability	11%
Manufacturing/Production Engineering	10%
Research & Development	8%
Manufacturing/Production Operations	5%
Purchasing	3%
Other	1%

Management Level

All levels of automotive management are represented in this study.

The largest segment of respondents (40%) are staff. More than one in three (36%) indicated middle management and slightly less than two in ten (18%) indicated senior management.

Level of Management	% Indicating
Senior Management	18%
Middle Management	36%
Staff	40%
No answer	6%

Base = All respondents or 1,093.

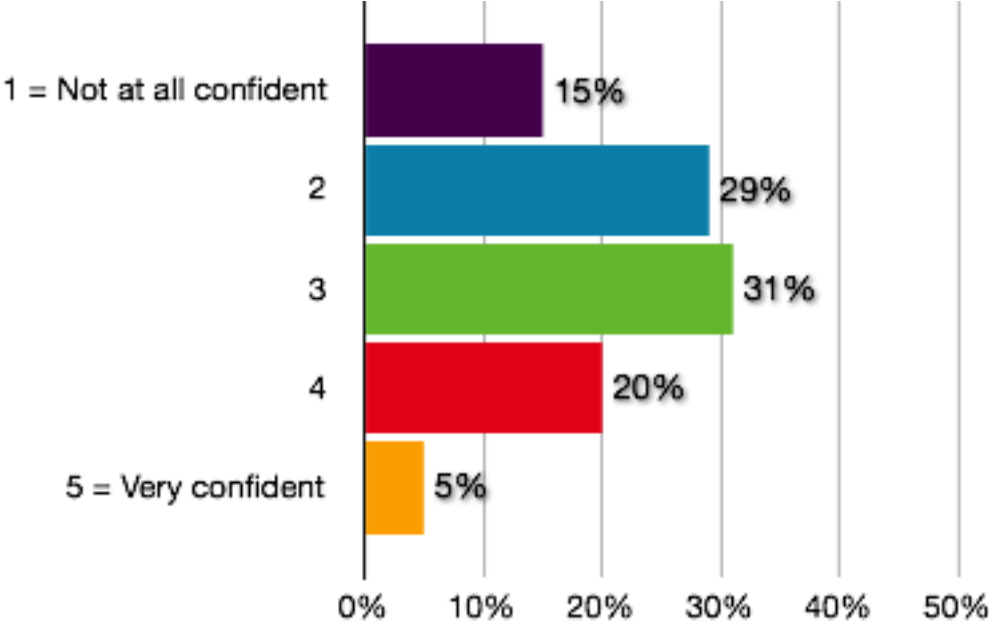
Key Findings

Confidence in Current Materials Portfolio

Respondents are not very confident that the currently available materials portfolio will help them meet the new CAFE rules.

The federal government has proposed new CAFE rules that will require auto makers to double their average mpg to 56.2 mpg by 2025. Respondents were asked to indicate their confidence in the currently available materials portfolio to help them achieve the new CAFE fuel regulations. The majority of respondents (75%) indicated a confidence rating of three or less. Only one in twenty (5%) indicated they were very confident.

Mean Confidence Rating
2.7



How confident are you that the currently available materials portfolio will meet your needs?

Base = All respondents or 1,093.

Material Change

Half of the respondents indicated that the powertrain is the vehicle system most likely to have the greatest percentage of material change.

When asked which vehicle system will see the greatest percentage of material change as a result of the new CAFE rules, the largest segment of respondents (49%) indicated powertrain. Another one in five (22%) indicated chassis and slightly less (19%) indicated body exterior.

- ▣ ***Which vehicle system, do you believe, will see the greatest percentage of material change as a result of the new CAFE rules?***

Vehicle System	% Indicating
Powertrain	49%
Chassis	22%
Body exterior	19%
Interior	4%
Other	6%

Base = All respondents or 1,093.

Materials Rating

Aluminum is the one material that respondents rated as most helpful in meeting the new CAFÉ fuel economy standards.

With a top two rating (those who indicated a four or five) of 73 percent, aluminum was the material rated as most helpful with meeting the new CAFE fuel economy regulations. Slightly less (68% each) indicated plastics or carbon-fiber composites. Magnesium was rated as the least helpful material (43%).

➤ *How would you rate each of the following materials based on their ability to help meet the new CAFE fuel economy standards? (please use a 5-point scale where 1 = 'not at all helpful' and 5 = 'very helpful')*

Material	Top Two (those who indicated a 4 or 5)
Aluminum	73%
Plastics	68%
Carbon-fiber composites	68%
Elastomers and fiber-reinforcement	60%
Advanced high-strength steel	59%
Magnesium	43%

Base = All respondents or 1,093.

CAFE Perceptions

Respondents are most likely to agree that the new CAFE standards will fundamentally change how vehicles are manufactured in the U.S.

With a top two agreement rating (those who indicated a four or five) of 77 percent, respondents indicated the greatest degree of agreement with the statement suggesting that the new CAFE standards will fundamentally change how vehicles are manufactured in the U.S. Conversely, the statements they indicated the least degree of agreement with dealt with environmental groups.

➔ *How would you rate your level of agreement with each of the following statements. (please use a 5-point scale where 1 = 'strongly disagree', 3 = 'neither disagree or agree' and 5 = 'strongly agree')*

CAFE Statement	Top Two (those who indicated a 4 or 5)
A CAFE standard of 56.2 mpg for cars and light trucks for 2025 will fundamentally change how vehicles are manufactured in the U.S.	77%
A CAFE target of 56.2 mpg will require most vehicles to use hybrid-electric or electric powertrains.	52%
Consumers understand CAFE targets of 50 mpg or more by 2025 will significantly increase the price of future vehicles and limit or eliminate the availability of some products, such as full-size pickup trucks.	29%
A CAFE target of 56.2 mpg by 2025 will not jeopardize the safety of future vehicles.	25%
A CAFE target of 56.2 mpg for cars and trucks by 2025 can be reached using currently available technologies.	24%
A CAFE target of 56.2 mpg can be reached by 2025 without tradeoffs in vehicle size, cost, safety or changes in the vehicle mix.	11%
Environmental groups fully understand the technologies and engineering tradeoffs required to meet fleet average fuel economy targets of 50 mpg or higher.	8%
Environmental groups lobbying for CAFE standards of 56 mpg or higher consider current and future National Highway Traffic Safety Administration safety rules when they evaluate the cost and achievability of future fuel-economy targets.	8%

Base = All respondents or 1,093.

Criteria for Adopting a New Technology

Cost, far and away, is the most important factor for these respondents when they are deciding whether to adopt a new technology that will impact production and manufacturing.

Eight in ten respondents (80%) indicated that cost was one of their top two criteria when deciding whether to adopt a new technology that impacts production and manufacturing. Another four in ten (42%) indicated consumer acceptance of the new technology. One in four (24%) indicated longevity of the new technology.

+ *What are your top two criteria when deciding whether to adopt a new technology that impacts production and manufacturing?*

Adoption Criteria	% Indicating
Cost	80%
Consumer acceptance of the new technology	42%
Longevity of the new technology	24%
Simplification of the assembly process	14%
Tooling changes	11%
New value chains	8%
Worker skills and efforts to retrain/restaff	6%
Other	5%

Base = All respondents or 1,093.

Investment Strategy for Adopting a New Technology

Respondents indicated that their company's investment strategy for adopting new technology needs to have a more balanced approach.

Respondents believe that their companies need to have a more balanced approach that addresses technology issues for today and the future (55% vs. 70%).

- *How would you characterize your company's investment strategy for adopting new technology?*
- *What **SHOULD** be your company's investment strategy for adopting new technology?*

Investment Strategy	Current Strategy	What It Should Be
1= Mainly focus on short term technology investments	12%	2%
2	15%	2%
3 = Have a balanced focus that address technology issues for today and in the future	55%	70%
4	9%	16%
5 = Mainly focus on long term technology investments	6%	8%
Mean Rating	2.8	3.3

Base = All respondents or 1,093.

Powertrain Policy Influence

Respondents indicated that consumers should have the greatest amount of influence on powertrain policy.

Currently, the group with the greatest degree of influence on powertrain policy is the government (indicated by 44%). However, respondents indicated that consumers (44%) should be the group or organization with the greatest amount of influence on powertrain policy. The next most frequently mentioned group was technology (R&D) indicated by more than two in ten (22%).

- Which ONE group or organization would you say has the greatest amount of influence on powertrain policy?
- Which ONE group or organization SHOULD have the greatest amount of influence on powertrain policy?

Group or Organization	Actual	What It Should Be
Consumer	12%	44%
Technology (R&D)	10%	22%
Auto makers	17%	19%
Government	44%	5%
Vehicle design	2%	5%
Other	2%	2%
Environmental activists	6%	0%
Oil companies	6%	0%

Base = All respondents or 1,093.

Top Challenges and Issues

Respondents believe the automotive industry should focus more attention on building the engineering talent pool inside for advanced technology and less on restructuring, mergers and acquisitions.

Currently, respondents believe that the automotive industry focuses the most attention on supply availability and pricing relative to increasing vehicle demand (41%). Slightly less (38%) indicated building engineering talent pool inside for advanced technology. However, they believe that the automotive industry should focus even more attention on building the engineering talent pool (60%) as well as improving trust and working relationships between OEMs and suppliers (39%).

- ***Below is a list of challenges and issues facing the automotive industry. Please identify the three that have captured the greatest amount of attention and priority in terms of resources at your company.***
- ***Which THREE of the following challenges and issues facing the automotive industry should be capturing the greatest amount of attention and priority in terms of resources at your company.***

Challenges and Issues	Actual	Should Be
Building engineering talent pool inside for advanced technology	38%	60%
Improving trust and working relationships between OEMs and Suppliers	32%	39%
Supply availability and pricing relative to increasing vehicle demand	41%	33%
Diversifying your customer base (OEMs or end use consumers)	33%	29%
Seek greater market-back input to future government fuel economy and emission regulations	14%	26%
Achieve mass reduction to maximize the value of advanced propulsion technology	19%	23%
Ability to tie labor negotiations to company performance	16%	16%
Support standards to promote safety and convenience for the connected vehicle	15%	16%
BRIC and emerging economy investment	21%	15%
Restructuring, mergers and acquisitions	35%	10%

Base = All respondents or 1,093.