AUTOMAKER RANKINGS 2010

THE ENVIRONMENTAL PERFORMANCE OF CAR COMPANIES

In the closest victory to date, Honda claims the Greenest Automaker award amid a three-way photo finish—with Toyota and Hyundai—in the Union of Concerned Scientists' comprehensive environmental rankings.

Meanwhile, for the fourth time in UCS's five assessments over the past 10 years, Chrysler ranks as the most polluting automaker.

Honda | Toyota | Hyundai | Volkswagen | Nissan | Ford | General Motors | Chrysler

Union of Concerned Scientists

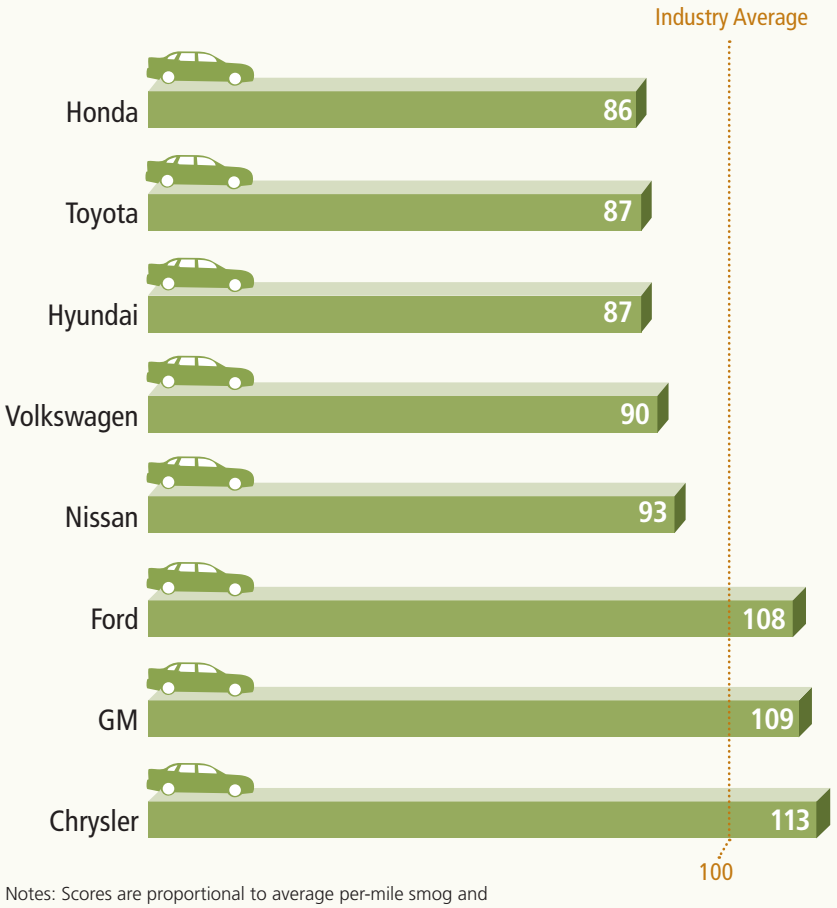
Citizens and Scientists for Environmental Solutions

An Objective Assessment

In recent years, consumers have become increasingly concerned about the environmental impacts of the vehicles they drive. In response, today's manufacturers often make claims of ecological stewardship, touting green automotive technologies and product lines. Yet upon closer scrutiny, many of their assertions lack substance.

The Union of Concerned Scientists' *Automaker Rankings 2010* assessment puts these claims to the test by using government data to measure the environmental performance of each of the eight best-selling automakers' product offerings. Focusing on model year 2008—the latest for which final data are available—and assessing each manufacturer based on the smog-forming and global warming emissions of the entire fleet of vehicles it sells, we objectively measure the companies' true environmental performance.

FLEET AVERAGE ENVIRONMENTAL SCORES BY MANUFACTURER



Notes: Scores are proportional to average per-mile smog and global warming emissions. Lower scores indicate less pollution.

Important Lessons

This year's automaker rankings yield some prominent lessons, including:

Sales matter. Delivering an environmentally friendly fleet requires producing clean vehicles *and* selling them. This fact has important implications for existing hybrids, as well as for upcoming plug-in hybrids and electric vehicles. Moreover, while such technologies are both promising and inspirational, automakers seeking to make good on claims of eco-stewardship need to focus on cleaning up their entire fleet, including their biggest sellers.

Full lines can compete. Two of the top three automakers in this year's rankings (Honda and Toyota) produced vehicles in seven of the eight vehicle classes considered in this report. The third (Hyundai) produced vehicles in six of eight classes. Clearly, claim to the crown does not occur through the production of small cars alone.

Consistency is key. Manufacturers at or near the top of our rankings get there by consistently delivering best- or near-best performance, both on smog-forming and global warming emissions, in nearly every vehicle class. Top-ranking Honda and Toyota, for example, placed either first or second in four of the seven class categories in which they competed. By contrast, Chrysler, which ranked last this year, placed first or second in none of its vehicle classes.

Key Results by Automaker

1 **Honda wins first-place title, though just barely.** To retain this ranking in the future, Honda needs to focus on efficient hybrid designs and stronger hybrid sales fleet-wide. Further, in every class of vehicle it sells (compact car, minivan, etc.), the company should seek to regain its historic leadership in fuel economy and smog-forming-emissions control technology.

2A **Toyota stalls, squanders opportunity.** Based on past trends, Toyota was poised to take the Greenest Automaker crown from Honda this year. Instead, Toyota stalled on global warming emissions, leaving it tied for second place with Hyundai. One key to Toyota's eco-competitiveness is hybrids—without them the company would have finished in fifth place. For Toyota to claim the mantle, it must maintain the lead it holds in hybrid technology while also improving its conventional vehicles.

2B **Hyundai surprises competitors with near-win.** This company has made great strides over the past few years, placing it neck and neck with Honda and Toyota this year. Hyundai stands a very good chance of finishing first in our next assessment if it maintains a focus on delivering clean and efficient products across all vehicle classes. Recent company announcements—for example, the decision to emphasize four-cylinder rather than six-cylinder engines—bode well for its chances.

4 **Volkswagen climbs because of cutback on diesels.** A lack of diesel models in 2008 slightly worsened Volkswagen's global warming rating, but the omission dramatically improved the company's smog rating. The newer and cleaner diesel models that Volkswagen now offers will be technologies to watch—especially to see if they can beat out other companies' hybrids. To truly be a contender, though, Volkswagen needs to improve the miles-per-gallon of its gasoline vehicles too.

5 **Nissan slips again.** Nissan slides to fifth place this year, well below the number-two ranking it attained in model year 2003. The company's decision to aggressively pursue electric vehicles, beginning with its Leaf EV, poses an exciting wild card for Nissan's future eco-credibility. But as it moves forward, Nissan must not neglect the conventional technologies that make up the lion's share of its sales.

6 **Ford ranks best-of-the-worst four times running.** Ford again bests its Detroit competitors, but it has yet to surpass other manufacturers. To do so in the future, Ford should focus on increasing sales of its Escape and Fusion hybrids, which lead in their respective classes. Ford's introduction of EcoBoost engines, and its decision to seriously compete in the small-car market with the new Fiesta, could also improve the company's standing—if enough get into consumers' hands.

7 **General Motors stagnates in next-to-last position.** GM's lackluster eco-portfolio and high sales of inefficient vehicles continue to undermine the company's success in these rankings. The forthcoming Chevrolet Volt and Cruze Eco, however, show promise of a new direction; sales of those models will reveal whether the company is serious. To become the greenest of the Detroit Three, GM needs to step up its efforts on global warming emissions in almost every class of car and truck it sells.

8 **Chrysler dwells in the cellar yet again.** Chrysler is the dirtiest automaker of the year for the fourth time in five UCS automaker-rankings analyses, and it consistently ranks among the bottom three for every vehicle class in which it competes. The company must focus on the basics if it wants to catch up to its competitors.

MY2008 GLOBAL WARMING AND SMOG-FORMING EMISSIONS RESULTS

AUTOMAKER	AVERAGE EMISSIONS (GRAMS/MILE)		EMISSIONS SCORES		
	GLOBAL WARMING EMISSIONS (CO_2-EQUIVALENT)	SMOG* NO_x+NMOG	GLOBAL WARMING	SMOG	COMBINED
Honda	377	0.125	88	85	86
Toyota	390	0.122	91	83	87
Hyundai	377	0.127	88	86	87
Volkswagen	411	0.123	96	83	90
Nissan	410	0.132	96	90	93
Ford	460	0.159	107	108	108
GM	457	0.165	107	112	109
Chrysler	468	0.173	109	117	113
Average	**429**	**0.147**	**100**	**100**	**100**

* Nitrogen oxides (NO_x) and non-methane organic gases (NMOG) are the two major smog-forming emissions from motor vehicles.

Much More Can Be Done

All automakers, even the leaders in these rankings, can and should be doing more—particularly when it comes to global warming. Because public feedback is critical in making that happen, the next time you buy a car or truck choose the one with the lowest global warming and smog-forming emissions that meets your needs and budget. Through our purchasing decisions we can give manufacturers a strong signal that consumers care about the environmental impact of their vehicles. Fuel-efficient models are a good place to start; when all else is equal, use these rankings to reward the best overall automaker.

About the UCS Automaker Rankings Analysis

The product-planning decisions of a small number of automotive companies have an immense influence on the environmental health of the United States and the world. This UCS assessment, the fifth in a continuing project we have been conducting for 10 years, analyzes the bottom-line environmental performance of eight companies that together account for more than 90 percent of cars and trucks sold in the United States. Using government data on model year 2008 vehicles, we evaluate each automaker's average per-mile emissions of smog-forming and global warming pollutants. Overall scores for each manufacturer are computed; the average across all eight automakers is defined as a score of 100, with lower scores indicating less pollution.

OVERALL AUTOMAKER RANKINGS FOR AVERAGE NEW-VEHICLE EMISSIONS

RANK	MODEL YEAR 1998	MODEL YEAR 2001	MODEL YEAR 2003	MODEL YEAR 2005	MODEL YEAR 2008
1	Honda	Honda	Honda	Honda	Honda
2	Toyota	Toyota	Nissan	Toyota	Toyota* Hyundai*
3	Nissan	Nissan	Toyota	Hyundai	‡
4	GM	Ford	Ford	Nissan	Volkswagen
5	Ford	GM	DaimlerChrysler	Volkswagen	Nissan
6	DaimlerChrysler**	DaimlerChrysler	GM	Ford	Ford
7	†	†	†	GM	GM
8	†	†	†	DaimlerChrysler	Chrysler

* Scores for these two manufacturers are sufficiently close that they are both awarded a second-place ranking.
** During the period of the Daimler-Benz/Chrysler merger, DaimlerChrysler was evaluated as a single automaker that produced Mercedes-Benz and Chrysler products.
† Only the top six automakers were evaluated in model years 1998, 2001, and 2003.
‡ Because of a tie for second place, no automaker receives a third-place ranking.

The Union of Concerned Scientists is the leading science-based nonprofit working for a healthy environment and a safer world.
The full report is available on the UCS website at ***www.ucsusa.org/clean_vehicles***.

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