

# Foreign Car Makers Grab U.S. Resource: Automotive Engineers

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**E**ven as Detroit braces for big job cuts at General Motors Corp. and Ford Motor Co., demand for automotive engineers and students coming out of engineering schools is perking up around the Motor City, buoyed by Asian auto makers that want to develop more products for the U.S. market.

On a recent, crisp autumn day in Superior Township, Mich., Delphi Corp. Chairman and Chief Executive Officer Robert S. "Steve" Miller stood side by side with dignitaries to cut the ribbon for a \$68 million, state-of-the-art automotive-engineering center. Mr. Miller, who is demanding big pay cuts from hourly factory workers at the troubled automotive-parts supplier, posed for cameras with a pair of oversize scissors.

The new research-and-development center belongs to Hyundai Motor Co.—one of the same Asian auto makers whose competitive pressures have helped drive Detroit into its biggest crisis since the early 1990s.

"We're thrilled that Hyundai would bring a facility like this to Michigan," Mr. Miller said. Hyundai currently has 140 people working at the tech center, a majority of them engineers. The company said it plans to boost the number to 400 by 2007.

Asian auto makers from Toyota Motor Corp. to Nissan Motor Co. to Hyundai and its subsidiary Kia Motors Corp., along with automotive suppliers from Japan and Germany, are rushing to Michigan because the R&D centers of the Big Three and major U.S. suppliers are located there. According to the state of Michigan, automotive R&D employs more than 65,000 professionals, not all of whom are engineers; the number of unemployed engineers in the state isn't known.

In a speech at Hyundai's Michigan R&D center in October, the company's vice chairman, Sang-Kwon Kim, noted the state's high concentration of automotive-engineering talent "This area's access to ... talented engineers and designers ... and rich automotive history have combined to create a matchless environment for success," he said.

Michigan Gov. Jennifer Granholm, under political pressure because of the big job losses at GM, Ford, Delphi and other manufacturing companies, in 2004 launched an initiative to promote Michigan as an automotive Silicon Valley. Since then, the state has won investments from nine automotive companies from South Korea, Japan and Germany that have created some 3,000 engineering jobs. "They all know Michigan is the place to come for engi-

neering talent," Ms. Granholm says.

Some in the talent pool have been laid off by U.S. auto makers while others, looking for more stable positions now that Ford and GM are in trouble, are easily lured to positions with the foreign concerns. In either case, a growing presence of foreign auto makers and suppliers' engineering facilities is "a good thing from an individual engineer's point of view" because it offers more options for American engineers at a time when opportunities at the Detroit auto makers may be on the wane, says Ray Morris, executive vice president of the Society of Automotive Engineers, a world-wide association based in Warrendale, Pa.

But for Detroit as a whole, says Mr. Morris, the growing number of engineers being retired at Ford and GM or jumping ship to Asian and European auto makers "drains the traditional American [auto makers] of critical expertise and skills," threatening to turn them into mere assemblers and marketers.

Fueling the drive by Asian auto makers to establish R&D centers in the U.S. is a shortage of engineers at home, partly because they are growing so fast they can't hire engineers fast enough. This is especially true at Toyota, which is pursuing an aggressive growth strategy that could propel it past GM to become the world's No. 1 auto maker. Nearly 40% of Toyota's 20,000 engineers in Japan are contractors from agencies and "guest engineers" from suppliers.

Toyota has to fill gaps in its midcareer engineering population resulting from hiring freezes the company instituted in the mid-1990s to cope with a severe economic slowdown. Numerous middle-age engineers are also set to retire during the next few years.

"Especially lacking, when we look ahead 10 to 20 years, are experts in material science and chemistry, as well as researchers in an area I might call 'human science,'" says Kazuo Okamoto, a Toyota executive vice president. Such researchers are experts in the study of the human brain and other aspects of human behavior that might someday lead to advances in safety technology.

Toyota's long-term R&D strategy, Mr. Okamoto said, is to focus activities at Japan-based R&D centers more on advanced research-and-development activities. As a result, engineering outposts like Toyota's technical center near Ann Arbor, Mich., are gaining greater responsibilities.

The tech center, established in 1977, was beefed up more than a decade ago for designing seats, instrument panels, cup holders, bumpers and other parts, as well as tuning engines and suspensions for the U.S. marketplace.

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But Toyota executives say the company now is ready to let American engineers handle more critical tasks. Eventually, Toyota's U.S. engineering staff could develop transmissions and suspensions for vehicles exclusive to the U.S. market, although the company still plans to keep core powertrain and chassis design in Japan.

Toyota's Ann Arbor tech center announced earlier this year it would purchase a large parcel of land southeast of the city, to almost double its size over the next several years to more than 1,000 engineers from 600.

Bruce Brownlee, the tech center's general manager of corporate planning and external affairs, says Toyota is going aggressively after new graduates coming out of "good" engineering schools in the Midwest, including the University of Michigan, Ohio State University and Purdue University, instead of meeting all its needs by hiring engineers away from the Detroit auto makers and suppliers.

Nissan is similarly in an expansion mode in Michigan. Its North American R&D arm in Farmington Hills, Mich., expanded in 2004 and added a satellite styling studio earlier this year. According to Tsuyoshi Yamaguchi, head of Nissan R&D in North America, the tech center has hired 100 new engineers every year on average over the past five years. "We're on an expansionary trajectory that should continue as long as our sales remain on the rise," he says.