

March 6/ 2007

Toyota University Opens Admissions to Outsiders

By Mike Spector and Gina Chon

When Capt. Patrick Findley took over the Los Angeles Police Department's jails about two years ago, incoming prisoners stood in line for hours waiting to be booked, and officers spent valuable time heating up frozen dinners to feed them each evening.

So Capt. Findley turned to an unlikely place for a tune-up: Toyota Motor Corp.

The company isn't only one of the most efficient and profitable auto makers on the planet, it also has quietly become a kind of managerial guru. At times, it has opened the doors of its in-house training center, known as the University of Toyota, and welcomed students ranging from home builders to soldiers to city cops.



Los Angeles police do a car-building drill at the University of Toyota.

way, Toyota spends less on stocking unused parts and has fewer parts to fix or scrap if a quality problem arises.

The school occupies the Toyota Plaza building, and lean-thinking classes are taught on the eighth floor, a series of classrooms juxtaposed with open lounges. Students are encouraged to walk freely throughout the floor. Banners hang from walls displaying key Toyota principles like *kaizen* (continuous improvement) and *genchi genbutsu* (go look, go see).

The *kaizen* mantra says progress is made with a million incremental ideas, as opposed to one fix-it-all initiative. That runs counter to the American tendency toward bold moves and great leaps.

A few years ago, Toyota decided to start teaching its ideas to others. It charged most organizations, but it trained the police and the U.S. military as a public service.

In 2005, the Defense Department sent representatives from each military branch to Toyota to improve combat readiness. Participants learned how Toyota organizes its distribution centers and warehouses in ways that speed the shipment of parts. The military applied some of these ideas to the airports that handle materials headed for Iraq. One small change: The military now stacks packing material closer to loading docks, which saves personnel a few steps and a couple of minutes each time they pack up supplies for shipment. Over the course of a day, those small changes save hours.

For Capt. Findley, a two-day class revealed the solution to his headaches: sandwiches. By cutting hot evening meals at the lockup, the LAPD could free more officers during one of the jail's busiest times.

"We had always done it that way," Capt. Findley says of serving dinner hot. "It never occurred to me to do something different."

Based in Gardena, Calif., the Toyota program was started in 1998 to train the company's employees in its distinctive business philosophy and "lean-thinking" approach to producing cars. For instance, Toyota's just-in-time production system orchestrates the building and delivery of parts so they arrive at the factory a few hours before needed instead of sitting in storage for days. That

In an assessment of the Toyota training, one Air Force captain wrote that her "life would never be the same."

Each Toyota lean-thinking class begins with a car-building simulation. Using palm-size toy cars and desks for work stations and dealer deliveries, students first build vehicles using a "push" system, which emphasizes production targets and makes workers do their jobs as fast as possible. Inevitably, the group ends up with many quality defects among the piles of cars at the "dealer."

Students then simulate Toyota's "pull" system, in which any employee may stop the production line to fix even the most minor problem. The exercise shows how making many small adjustments leads to faster, more-efficient production.

As part of its effort to see if the Toyota way could work with non-auto businesses in the U.S., Toyota looked for a group that had already devised some lean thinking on its own, and it found Quadrant Homes, a Seattle home builder owned by forest-products giant Weyerhaeuser Co.

For years, Quadrant had built homes with features based on market trends, then sold the finished products, but the build-first approach sometimes left it holding slow-selling homes with features buyers didn't want.

So Quadrant flipped the process: It started taking orders for homes and then built them to buyers' specifications. That brought prices down, cut average construction time to 54 days from 120 and nearly tripled sales closings over a five-year period, says Ken Krivanec, Quadrant's senior vice president for sales and marketing.

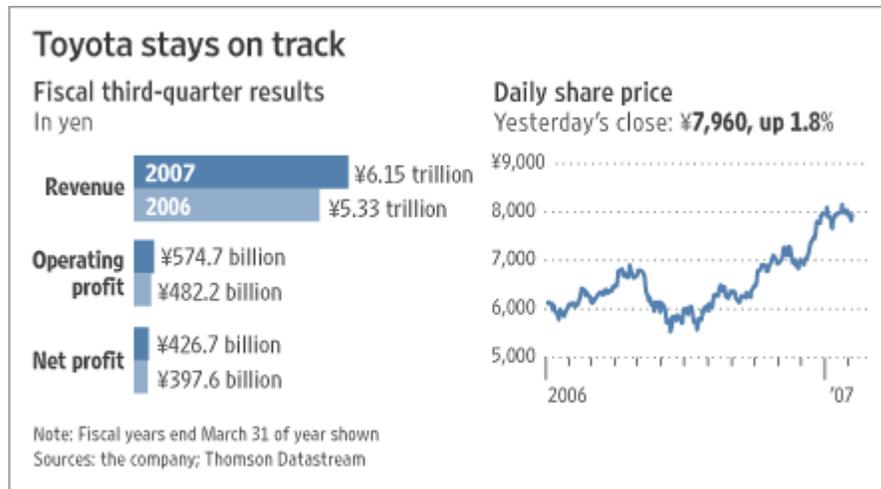
Hoping to ingrain that kind of thinking, Mr. Krivanec started sending teams to the Toyota program when it opened its doors to outsiders. Today, Quadrant employees meet regularly and attack problems with "plan, do, learn" sheets; students use the charts in Toyota's classes to disassemble processes, identify root causes of problems and devise solutions.

Toyota's relationship with local police began after Mike Morrison, University of Toyota's dean, met an LAPD officer and offered to help at the officers' next training meeting.

About 60 sergeants, lieutenants and senior officers gathered at a Presbyterian church in late 2002 for a "Drum Circle Spirit," an exercise adapted from Africa that Toyota sometimes uses to build teamwork. A Toyota educator had the officers form a circle and bang away. "It sounded like a bunch of racket," recalls Mike Downing, who worked in West Hollywood at the time and is now a commander downtown. Then Toyota's drum-circle leader began conducting, speeding and slowing tempos, forcing the cops to play together -- a metaphor for supervisors working together with common processes.

In 2005, Capt. Findley cast about for ideas to streamline the LAPD's jail division, a hub of inefficiency and low morale. A converted Cmdr. Downing recommended the Toyota program.

For the two dozen hard-nosed officers, the connection between making cars and processing thugs came slowly. Matthew May, a Toyota instructor, coaxed them along by asking questions like: "If you were a part of a car, what would you be?" The discussion led to discovering the most important part of any machine: The part that isn't working.



This helped the officers zero in on a persistent problem. If a prisoner awaiting processing at an outlying jail asked for treatment, protocol dictated they had to be taken to a regional jail first. Once treatment was done there, the officer had to take the prisoner back to the outlying jail for booking. Applying Toyota thinking, the officers realized they could save a lot of time by booking prisoners first at the outlying jail. A different officer could then take the prisoner for treatment, freeing the arresting officer to go back out on the streets.

Another team tackled the kitchen. Each day around 5 p.m., two officers loaded frozen dinners into ovens. The task could keep officers from the booking window for hours. The root cause: Health regulations required hot meals. Or did they? A closer look by the class showed the health code required three meals -- only one hot.

Prisoners still get hot lunches, but at dinnertime they get two prepackaged turkey sandwiches, an apple and milk. "This is not Spago," Capt. Findley says, referring to Wolfgang Puck's restaurant.

When officers presented their ideas to superiors, they were unexpectedly greeted by 10 LAPD central command officials. The assistant police chief told them their ideas were "breakthroughs" and said the department would implement them all, Mr. May recalls. Most of the workers had never had a supervisor listen to an idea. "There was some mistiness in the eyes of some," Mr. May says. The dozens of ideas that teams devised at Toyota's university could save more than \$1 million annually, the LAPD estimates.

Toyota's methods won't solve all the jail's problems, of course. It remains short-staffed and will soon have to contend with even more bookings in a new crackdown on gangs, but Mr. May says the LAPD's strides prove Toyota's methods can be adapted elsewhere. "If you can do it with LAPD," he says, "you can do it anywhere."

Meanwhile, demand for lean-thinking classes has increased among Toyota's employees, causing the auto maker to halt work with outsiders for now. Recent uncharacteristic recalls have raised concerns that Toyota's culture could become diluted as the auto maker expands, and the university was created to teach Toyota's own.

Mr. Morrison and others say they may consider opening Toyota's doors again, if resources allow. For now, Toyota is training LAPD officials to conduct lean-thinking classes themselves.

-- March 06, 2007