



By Jennifer Long, AP, for USA TODAY

Reverse psychology: Front: Melissa Buendia; second row, from left: Rob Welker, Michelle Owings, Frankie Marshall; third row: Gloria Ballejo, Billie Brown, Deborah Harman, Cindy Bailey; fourth row: Cindy Clark, Tammy Lowrey, Edith Makuta, Nita Henderson, Becky Dudley, Connie Reeves, Shirley Stovall; back: Tim Woodcock, Dutch Hoekstra, Pete Herring, Mae Brown and Steve Blake.

Teams of employees search and destroy work bottlenecks

By Chris Woodyard
USA TODAY

BROWNWOOD, Texas — Backward thinking usually gets companies in trouble. But for Wes-Tex Printing, looking at the production process in reverse led to changes that cut delivery times in half.

Quick turnaround is a huge advantage in the high-volume, low-profit-margin world of business card printing. And Wes-Tex President Steve Blake was getting frustrated that his edicts to cut the time it took to deliver orders, up to 7 days, didn't seem to work.

"I knew what needed to be done, but it was me having to do everything," Blake says.

So he took a radical approach. He turned the task of speeding up production to his 130 employees. That led to the formation of interdisciplinary teams, the kind of cooperation on the plant floor that led to Wes-Tex being named winner of the 2001 RIT/USA TODAY Quality Cup for small business.

"Here was an owner who probably 3 or 4 years ago didn't let anyone buy a pencil without his approval, who found the wherewithal to stand aside and let people choose their own destiny," says a judge, Chuck Blevins of Chuck Blevins & Associates in Vienna, Va.

Here's how Wes-Tex did it:

► A team of workers in each step of the production process was brought together to try to pinpoint the bottlenecks.

► Team leader Shirley Stovall, with help from Dutch Hoekstra, set out to chart the production process to find sticky points — going backward.

They started at the loading dock

What the teams did

Employees found delays in the production process, readjusted work schedules and dramatically reduced delivery times.



— William Nowlin, dean, College of Business & Public Administration, Governors State University, University Park, Ill.

Small-business finalists

There were two finalists in the small-business category.

The World Engine Team of Jasco Tools in Rochester, N.Y., developed a manufacturing system for an engine that meets size, fuel economy, emission control and cost requirements of two automakers. The result is a contract for Jasco to be the sole supplier for an engine plant in Brazil and a request for additional plans for plants around the world.

The Client Experience Team of HealthScreen America in Jacksonville, Fla., established procedures to ease customer check-in and check-out, streamline tests so customers don't have to move around as much and improve how customers receive test results. Customer satisfaction results have improved.

where finished boxes of business cards are picked up by United Parcel Service at 6 p.m. weekdays to be shipped to neighborhood printing shops around the country. They

traced every step back to the time that orders arrive in the morning mail.

The verdict: By ironing out the wrinkles in the system, repeat orders could be shipped in 2 days, and all products could go within 4 days. "I was ecstatic," Stovall recalls.

► The team was consulted. In order to achieve the 2-day/4-day goal, some employees would have to work different hours. Three platemakers, for instance, volunteered to change their shifts from days to evenings. The diemakers agreed to arrive every workday at 3:30 a.m. instead of the usual 7:30 a.m. starting time. The press operators started coming in at 5:30 a.m.

As a result, Wes-Tex has made its customers — the stationers and others who subcontract their business card orders — happy.

"It used to take 4 days, and now it takes 2 days," says Catherine Dounies of the Hall Letter Shop in Bakersfield, Calif., a Wes-Tex customer.

But Wes-Tex isn't finished. The turnaround-time team recommended a new team to improve workflow. The new team decided to try an experiment in which three workers from different but related departments were thrown together to teach each other their jobs and jointly solve problems. They were seen around the plant together so often that they became known as "the triplets."

Now, orders that used to sit in baskets going back and forth between departments for changes or fixes could be acted on immediately.

The increased variety made the jobs more enjoyable, giving a boost to morale.

By July, the company will have six teams in action — one pilot and five regular operating units.

"It's been a 180-degree turn in culture and thought processes," Blake says.

And it's paying off: Wes-Tex expects to see another 5% increase in its more than \$7 million in annual revenue this year, the same increase it saw last year.

Crafty basket makers cut downtime, waste

So far, changes saving \$3 million a year

By David Kiley
USA TODAY

FRIZESBURG, Ohio Time is money on the weaving floor of Longaberger, the world's premier purveyor of handmade baskets. And having weavers constantly stop work to forage for correct supplies was costing the company, as well as each weaver, money and aggravation.

Longaberger's weavers are paid per piece, not by the hour. Some 2,500 artisans kick out 40,000 high-quality baskets a day, accounting for half the company's \$1 billion in revenue last year. The baskets sell for \$29 to \$259.

Three basket makers — Merrill Stout, Brian Tigner and Greg Whiteman — believed productivity could be boosted. They were right, and their effort has made Longaberger a co-winner of the 2001 RIT/USA TODAY Quality Cup in manufacturing.

The problem: Each weaver was not getting the correct material to make the basket design assigned to him or her, which led to constant, time-consuming trading of raw materials among weavers and inefficient hoarding of the best material.

As the situation worsened, morale was being undermined.

With help from the head of manufacturing and encouragement from the chief executive officer, the three basket makers set out to develop a system for getting the right mix of maple veneer to each weaver in the correct amounts and on time.

"The only system in place was beg, borrow and steal," Whiteman says. The process was so unwieldy that productivity varied by 400% among weavers.

The team's objective was to reduce the amount of weaver downtime due to getting the wrong material by 50% and to reduce the amount of leftover material by 75%.

Dramatically reduced, wasted raw material and workers' downtime.



What a judge said

"These guys went so far beyond what you would expect. ... Management actually allowed them to go to school to learn what they needed to solve the problems themselves. ... It's a lesson in how you get an entrenched, cultlike culture to change."

— J. Michael Adams, head of global performance excellence and product support services at Microsoft

The team took a paid sabbatical from weaving and trained in using flow charting, cause-and-effect analysis and other problem-solving skills. They also trained in each job function that the eventual improvements would affect: sorters, sawyers, stampers, etc.

Coming from this process was the idea for a tool, now being designed, to get an accurate count of maple splints in a bundle, something that had been done strictly by hand and with great variation according to sorter.

By studying 40 basket makers for 19 days, the team determined that the biggest culprit was recycled material being too dry or moldy. By inventing a system that cut down on incorrect material being distributed in the first place, less would have to be recycled, avoiding that problem.

The chief indicator that weavers are getting the right material are flags put out at each of the 1,200 workstations indicating that raw materials need to be replenished. Before the new system was implemented, there were an average of 52.5 flags per day. After the new sorting and delivery system was put in place, the average dropped to 9.1.



By Michael A. Foley for USA TODAY

Creative crew: Longaberger's offices are housed in a basket-shaped building. Its baskets take a variety of materials to make, and getting them to the weavers on time keeps production smooth. Front row, from left, Greg Whiteman, Stephanie House and Tami Longaberger. Back row, from left, Ron Weitner, Brian Tigner, Merrill Stout and Jim Gimeson.

"The changes are saving about \$3 million per year so far, and that number is rising," Stout says.

Productivity, though, is only one dividend. Longaberger places a high value on esprit de corps. Two years since losing its founder and chairman, Dave Longaberger, to cancer, the company has been in transition under CEO Tami Longaberger, Dave's daughter.

Employee involvement, especially in problem solving, was a high priority for the founder, who was a hands-on coach, facilitator and father figure to literally every employee. Executing employee involvement with a big payoff is key to the current leadership's objective of maintaining high morale into the new generation of management.

"When we were smaller, it was easier to solve problems," says manufacturing chief Jim Gimeson. "As we have gotten so big, we lost it a bit. ... And then when Dave Longaberger died, solving problems got even a bit harder because he was so good at it."

Now, so are the people he left behind.

GE turns decision-making 'art into science'

By Del Jones
USA TODAY

RALEIGH, N.C. — Suddenly stop making your mortgage payments because of job loss, divorce, illness, etc., and chances are you'll get a call from someone here at General Electric Mortgage Insurance.

As one of the largest companies insuring in the event you stop paying, GE tackles 8,000 delinquent loans a year.

Employees deal daily with hardship. But this is a business, and profit-

ability relies heavily on the quick decisions of 25 representatives who determine if you're in so deep that the house must be sold or foreclosure initiated. Or if, with a little patience, the loan can be "cured," meaning you get back on your feet and become your old reliable self.

GE has long been frustrated that a handful of reps have been much better at making such decisions. Each top performer seemed to arrive at decisions differently, yet all had a knack for knowing which loans could be cured.

Such success had always been attributed to experience and gut instinct, an art that could not easily be taught to others. But GE decided it could save millions of dollars if it turned "art into science," says Buz Mertes, vice president of loss mitigation and customer service.

It took a chance, pulling its most successful reps off the job for 10 months and putting them in a room where they argued heatedly about what made their decisions superior.

What they arrived at was a simple science easily transferred to others,

and the team effort was judged the winner of the 1998 RIT/USA TODAY Quality Cup for service businesses.

"This industry is known for hassling customers," said judge William Golomski, a quality consultant. "There's all kinds of pit-bull behavior. These people decided to take an entirely different point of view."

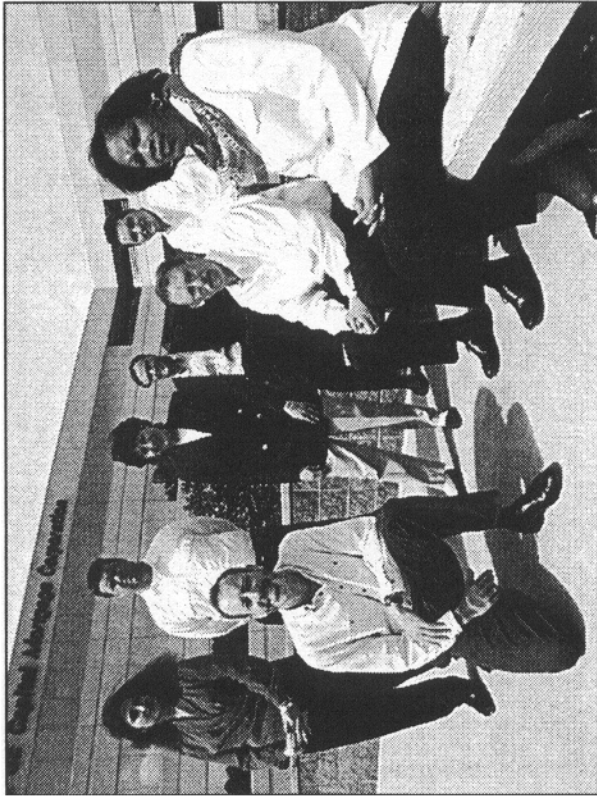
Not that the team lost sight of the bottom line. Even though the new system resulted in avoiding 1,600 foreclosures in its first year, up 43%, it wound up saving GE about \$8 million by making decisions more quickly, and by more accurately selecting which loans could be cured. The satisfaction rating from customers — the mortgage lenders that GE insures — rose from 61% to 76%.

The eight-person team turned art into such science that GE created a computer program that lets all reps be equally good at their jobs. The program works much like income tax software, allowing the reps to respond to a series of questions about a borrower's income, willingness to pay, ZIP code (to determine if houses in the area have depreciated in value), assets and other debts, such as car loans.

The program also has been almost perfect at predicting which borrowers, under threat of foreclosure, eventually will agree to pay for default losses and at what percentage.

At the end of the presentation to the judges, team member Scott Severance pulled out a guitar and played a song he composed about the project.

"That was a first," says judge Richard Huribert, who adds he was more swayed by the support the team got from the company's upper echelons.



By Robert Willert for USA TODAY

Turning art into science: General Electric Mortgage Insurance tapped its most successful reps to develop a system that helps all reps do a better job at determining which troubled mortgages can be 'cured.' Front row, l-r, Scott Severance (kneeling); Todd Ringerberg and Marquita Webb; back row, Sia Antonopol, John Will, Jan Maness, Buz Mertes and Jay DesMarteau.



SERVICE

General Electric Mortgage Insurance, Raleigh, N.C.

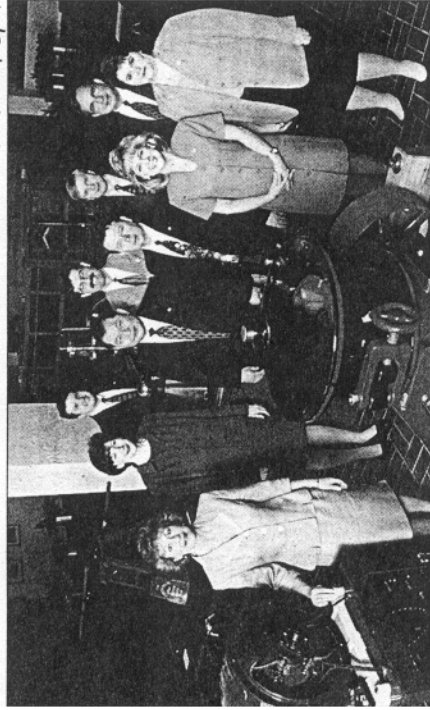
What the team did:

They found ways to accurately predict which home buyers delinquent on their mortgage payments would likely recover and which should sell their houses as soon as possible.

What a judge said:

"They took the human variability out of the business. They made tangible a very intangible process. Perhaps the most impressive thing was an amazing executive involvement."

— Richard Huribert, president, TBX Group, a quality consulting firm



Team members: Joan Dodd, from left, Belinda Thornton, Scott Walker, Wigginton, Chris Walker, Kathy Davis, Larry Akens and Robin Kirsch. Wai-Ran Wu, Lee Matthews, Philip

Tennessee utility cranks up planning process to save \$30 million a year

By Del Jones
USA TODAY

CHATTAHOOGA, Tenn. — The Tennessee Valley Authority, one of the five largest generators of electricity in the country, knew the business was changing long before the California power crisis.

Established by the federal government in 1933, TVA has 80,000 square miles of service area in seven southeastern states protected by Congress from competition. Therefore, it might seem that TVA is insulated with little incentive to get more efficient.

But deregulation is reaching across every fence. Public outrage about outages, or over rates rising above those in nearby states, might cause politicians to take a hard look at TVA's protection.

So, starting in 1999, TVA launched a pre-emptive strike and established a team to figure out how to get the precise amount of electricity at just the right time from its portfolio of 48 nuclear, hydro, coal-fired and combustion turbine power plants.

TVA had never ignored its costs. But power companies can now sometimes buy wholesale electricity for less than they can make it, or can generate more than they need and sell it at a profit.

Therefore, TVA had to make a transition from a company focused only on costs to one that looks at the entire market, and that created a new set of complex decisions to make on the fly.

Utility customers really only want two things: low rates and high reliability. Generate too little electricity on a hot day and risk blackouts. Generate too much and money is wasted, ultimately causing higher rates.

Tomers.

The power business is unlike many. For example, it makes sense for TVA to pump water from the Tennessee River 1,000 feet to the top of Raccoon Mountain in the middle of the night so that it can be dropped through generators when air-conditioning demands are high in the afternoon. This is true even though it takes more electricity to pump the water up than is generated by dropping it down.

The TVA team initiated several changes, most of which revolved around better communication. The timing of maintenance was coordinated so that, as at an airline, the best-get bumped, says team member Wai-Ran Wu, a transmission security specialist.

Coal has long been bought years in advance. But when temperatures soar, TVA must fire up expensive natural gas or diesel generators, and the fuel must be bought on short-term notice. Six employees are responsible for securing the best price, and they were moved by the team from fifth-floor isolation to near the operations room.

Key to TVA's success is its new ability to second-guess itself. Each afternoon at 1:30, when it has perfect information about the day before, such as weather and a minute-by-minute price of wholesale electricity, TVA's team determines precisely what it should have done.

That information is passed along to decision-makers, who use it to learn from their mistakes. It has even caused TVA to insist on more accurate weather forecasts, because it can now show its forecasting company that errors of a few degrees can cost TVA hundreds of thousands of dollars, says team member Scott Walker, the planning and review specialist.

Using hindsight, TVA determined it was 97.4% perfect last year and has saved \$14 million with a 1.5 percentage-point improvement since the team was formed. It is running within 98% perfect this year. All the improvements the project has made will save TVA \$30 million a year.

What the team did
Saved \$30 million a year by making decisions on the fly, such as when to fire up a power plant or buy electricity on the wholesale market.



What a judge said
"With all that was going on in California, the timeliness was right on point."

—Stanley Wadrick, department chair of management and marketing, Rochester Institute of Technology

Government finalist

There was one finalist in the government category. The Trademark Electronic Application System Team of the U.S. Patent and Trademark Office developed an interactive, Web-based system that anyone, regardless of experience, can use to file a federal trademark application online. The system has improved the quality of initial applications and helps maintain the quality of application processing.

The team tackled this basic problem, with a profitable result: \$30 million a year in savings, fewer outages and TVA's third RIT/USA TODAY Quality Cup in the government category.

Last year, TVA's residential customers paid 6.4 cents per kilowatt-hour vs. a 10.7-cent average for California and nearly 2 cents below the national average. Customers were without power for an average of 7.9 minutes, a 16.4% improvement over 1999, which saved millions of dollars more in "societal costs," including the money that would be lost during outages at Saturn, Alcoa or other big TVA cus-

Enterprising team solves TVA coal problem

By Earle Eldridge
USA TODAY

MEMPHIS — Everyone at the Tennessee Valley Authority assumed the switch to low-sulfur coal would be easy.

The goal was to get the TVA's Allen Fossil Plant ready for new environmental rules requiring coal plants to emit less high-sulfur dioxide, which contributes to acid rain.

But when major problems developed, a team went to work, devising a solution involving suppliers, testing sites and shippers. Their effort earned them the 1998 RIT/USA TODAY Quality Cup award for government.

Since 1959, the Allen plant had burned high-sulfur coal from Eastern states. That coal provided a consistent, predictable heat source to make electricity.

But in 1996, the plant switched to low-sulfur coal from Utah and Wyoming. Problems with the Western coal caused periodic plant shutdowns and loss of revenue.

The problem with the low-sulfur coal: slag buildup. Slag is like the leftover ash in a fireplace. Too much slag keeps coal from burning properly.

Ideally, slag oozes out of a hole in the bottom of the burner, is reclaimed and sold to firms that convert it into roof shingles, asphalt and other products.

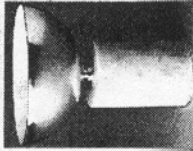
But when the slag builds up, it clogs the hole and eventually shuts the plant.

In July 1996, slag buildup shut the plant for 10 days, costing TVA \$3 million in revenue and \$500,000 to blast and jackhammer the slag from the burners.

Worried workers took action. On

GOVERNMENT

Tennessee Valley
Authority Allen
Fossil Plant,
Memphis



What the team did:

They involved TVA coal buyers, suppliers and vendors in a program to ensure consistent quality of government-required low-sulfur coal and to quickly spot potential plant problems from the coal.

What a judge said:

"This was truly workers making a difference. They took the initiative to determine what was causing the plant to come off line. Then they really brought out their bag of tricks to prioritize what they could do to correct the problem."

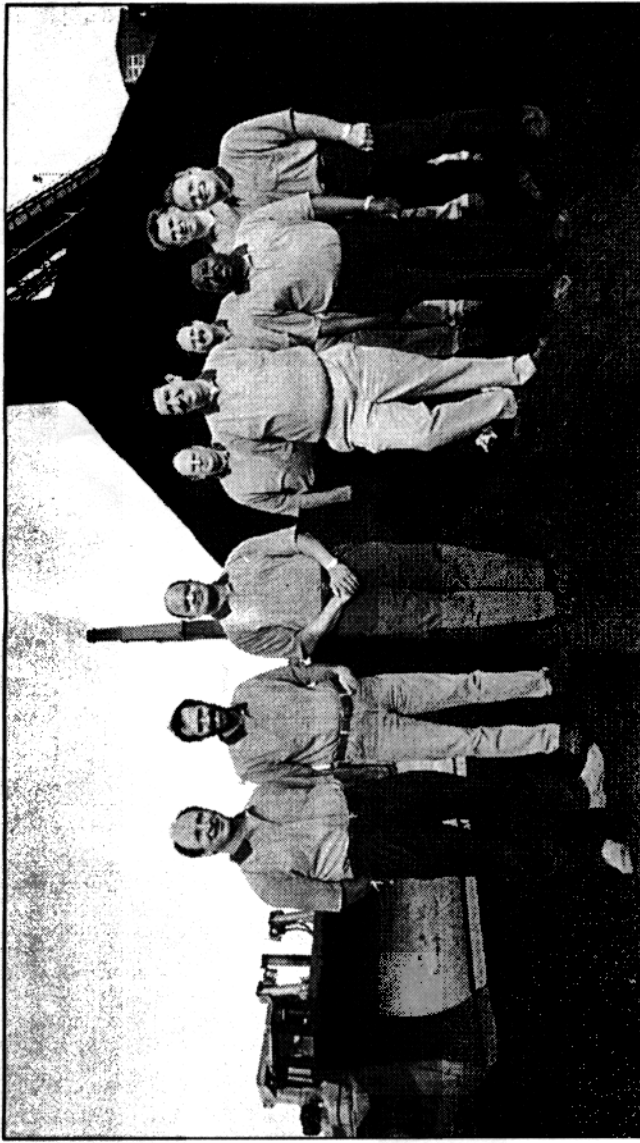
— Michael Adams, manager, quality services, Florida Power & Light, Miami

their own, they formed a team to find a solution.

They discovered that the chemical properties of low-sulfur coal can cause it to burn inconsistently. Adjustments can be made, but they weren't getting accurate chemical tests from suppliers.

"We got coal tests from the mines, but they didn't match our tests," says Noel Mizell, a team member and instrument foreman.

After months of quick fixes and periodic shutdowns, the team de-



Trouble trackers: The team at TVA's Allen Fossil Plant organized a way to test and track batches of low-sulfur coal to reduce power plant shutdowns caused by slag buildup. Front, l-r: David Patrick, Glen Civera, Louis Lee, Ralph Chance, Al Dyson, Bill Castle. Back, l-r: Ken St. Aubin, Robert Casey and Noel Mizell.

By Steve Jones for USA TODAY

veloped a plan.

It involves testing the coal in each rail car at the mine, then tracking the coal as it travels by train and Mississippi River barge to the plant.

It sounds simple, but it was a major accomplishment to get the mines, rail and barge companies and the TVA's testing laboratory linked by computer to track the coal.

Armed with the right information, the Allen plant can make adjustments to ensure that the coal will burn properly. That might

mean adding limestone or mixing the coal with other low-sulfur coal to prevent slag buildup.

The results have been dramatic. Losses from shutdowns dropped 80% in 1997. And \$3 million was saved by blending the Utah and Wyoming coals.

Sulfur dioxide emissions dropped to 26,000 tons from 80,000 tons annually. That meant Tennessee's Sheldahl County could permit new industries to locate there, something the county hadn't been able to do because of emission concerns.

The team's plan is being adapted

by TVA at other fossil-fuel plants. TVA management praises the employees who worked together to solve the problem.

Plant manager Louis Lee says the team "created a working environment that fosters employee empowerment and teamwork," and the results have positioned the plant to be customer focused.

Quality Cup judge Michael Adams, manager of quality services for Florida Power & Light, agrees.

"This truly shows that workers can make a difference when given the initiative," Adams says.

Privatized prisons pose problems

Not a panacea, states discover, despite savings

By Gary Fields
USA TODAY

Privately run prisons are one of the nation's newest growth industries.

Now operating in 18 states, the number of beds in private prisons nationwide has risen from 2,620 in 1986 to 74,003 today, an increase of 2,725%.

But while the added prison capacity is helping governments deal with skyrocketing inmate populations, it also presents corrections officials with a whole new set of concerns.

In Texas, for example, where 38 private prisons hold 31% of the nation's privately housed inmates, state corrections officials have discovered they have no oversight over private facilities under contract with counties.

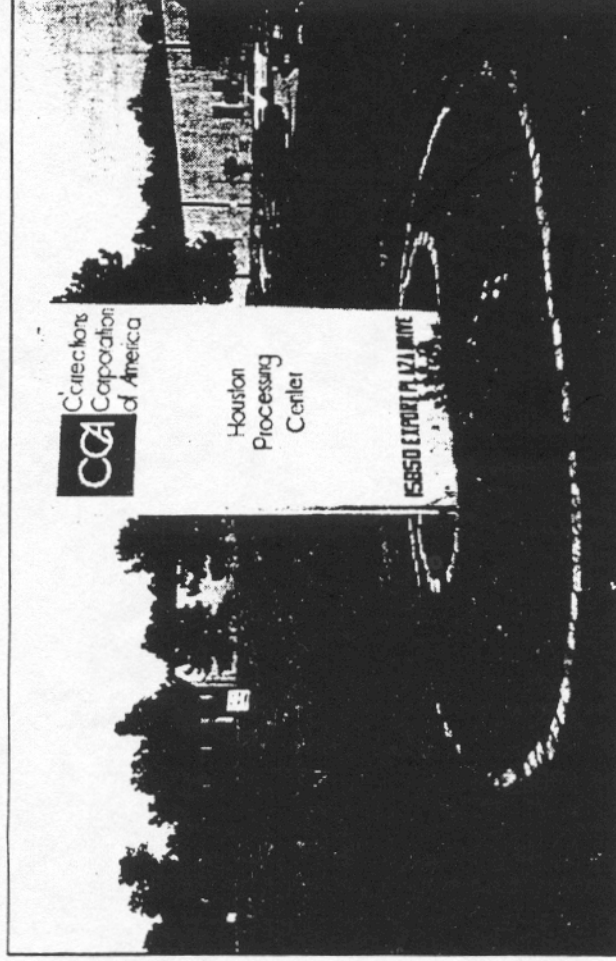
As a result:

- ▶ The state does not know who the out-of-state inmates are behind private prison bars or what they are charged with.
- ▶ Out-of-state inmates who would be housed in maximum security facilities under Texas guidelines are showing up in minimum and medium security private facilities.

- ▶ Because guards at private facilities are not considered law enforcement or corrections officers under Texas law, technically an inmate who escapes is not breaking the law.
- ▶ The state has no control over staffing levels or training standards at the facilities.

"They are essentially autonomous from any state scrutiny or oversight," says Allan Polunsky, chairman of the Texas Board of Criminal Justice.

There have been several escapes from minimum- and me-



By Brett Coomer, AP

Lack of oversight: The Corrections Corporation of America's Houston Processing Center facility is one of several private prisons in Texas that is concerning officials.

"Invariably we see the worst of other states' inmates being dumped into private facilities with no knowledge on the part of our state government."

—Allan Polunsky, Texas
Board of Criminal Justice

slash construction costs.

Louisiana is saving about \$1 million a year in prison costs through contracts with the Corrections Corporation of America and Wackenhut Corrections Corporation. The companies run identical 1,474-bed institutions. The state runs a third. State officials say Wackenhut spends \$24.52 per day per inmate while CCA spends \$25.41 and the state spends \$25.92.

"Governments are more and more cash-strapped so they are considering alternatives that are going to save taxpayer dollars and can continue," providing services says Susan Hart, CCA vice president of communications. "There's no question that this is a growth industry."

At least eight companies are publicly traded. And that is among the things that has some critics concerned that more problems will arise as the industry continues to grow.

"It does not take a rocket scientist to figure out that the profit motive is going to guide privatization," says Thomas Blomberg, a criminologist at Florida State University.

"Twenty-four years ago I talked to a judge in Des Moines who said, 'I can see a day in the not-too-distant future when, as judges pass sentences, there will be private vendors there, bidding for prisoners.'"

prisons as a key to dealing with soaring inmate populations.

The number of inmates in U.S. prisons has grown from 500,000 in 1980 to 1.6 million today. If the 8% annual growth trend continues, there will be 3.1 million inmates by 2006.

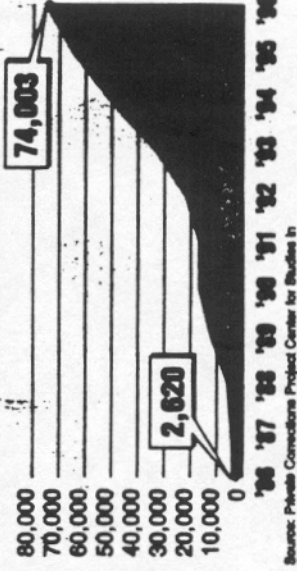
Expanding inmate populations have placed enormous financial pressure on state and local governments. Corrections accounts for between \$30 billion and \$40 billion a year, or about 5% of all state budgets.

Faced with choosing between building prisons or schools and roads, states are increasingly turning to private companies to house inmates.

Charles Thomas of the Prison Privatization Project at the University of Florida says private companies can operate facilities at costs 10% to 15% less than the government. One reason is that private companies aren't bound by state procurement laws, a factor that can

Private prison capacity rises

The dramatic growth in the number of privately run prisons in the past decade has raised a host of issues for state and local governments. Rising private prison capacity.



Source: Private Corrections Project Center for Studies in Criminology and Law, University of Florida

By Herman Woldewort, USA TODAY

medium-security private facilities by inmates who would have been in maximum-security prisons under Texas standards. "It is a major loophole. Invariably we see the worst of the worst of other states' inmates being dumped into private facilities with no knowledge on the part of our state government," says Polunsky.

The Legislature is expected to address the issue when it reconvenes in January.

Government officials across the country see privately run