



# Driving with rented risks

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JUNE 24, 2007 12 AM PT

TIMES STAFF WRITERS

Tucson — MARISSA STERNBERG sits in her wheelchair, barely able to move or speak. Caregivers are always at her side. Progress is measured in tiny steps: an unclenched fist, a look of recognition, a smile for her father.

Nearly four years ago, Sternberg was a high-spirited 19-year-old bound for veterinary school in Denver. She rented a U-Haul trailer to move her belongings, hitched it to her Toyota Land Cruiser and hit the road with her two dogs and a friend.

That evening, as the Land Cruiser descended a hill in the Chihuahuan Desert of New Mexico, the trailer began to swing from side to side, pushing the SUV as if trying to muscle it off the road.

ADVERTISING



never hauled a trailer before.

It is not unusual for a trailer to swing slightly. This normally poses little or no threat, but can be a sign of trouble.

Accidents often happen when a driver gains speed going downhill. The trailer whips from side to side more and more powerfully and finally takes control of the tow vehicle -- a situation known as "the tail wagging the dog."

Peter Keith, a Canadian safety expert, described the danger in a 1984 report for transportation officials in British Columbia.

"When the trailer suddenly starts [to] swing violently, the driver can often be caught unawares and is further faced with a very dangerous situation which requires considerable skill and presence of mind to resolve," Keith wrote. "Probably only a small minority of drivers are in practice capable of bringing the vehicle combination back under control."

The weight of the tow vehicle relative to the trailer is a crucial factor. The heavier the tow vehicle, the easier it is to control the combination.

Richard H. Klein, an authority on trailer dynamics who has served as an expert witness for U-Haul, underscored the point during one court appearance. He was asked if he'd rather be driving "a larger tow vehicle than a smaller one" if a trailer began to swing.

"Yes," he replied. "That's like motherhood and apple pie."

In keeping with this tenet, other major companies do not allow customers to pull rental equipment with passenger vehicles. Penske Truck Leasing and Budget Truck Rental compete with U-Haul in renting two types of tow equipment: tow dollies and

pull the load. They say safety is the reason.

Penske's trucks are "engineered to pull these types of loads," said spokesman Randolph P. Ryerson. The company has "no way to make sure other vehicles would have the same adequate towing capabilities," he said.

U-Haul allows customers to tow its trailers, tow dollies and other equipment with passenger vehicles as well as with the company's large trucks. Most renters use SUVs or pickups, which have a high center of gravity and are prone to rollovers.

Moreover, customers are permitted to pull trailers that weigh as much as or more than their own vehicles.

Under U-Haul rules, the company's largest trailers, which are equipped with brakes, can outweigh the customer's vehicle by up to 25% when fully loaded. Smaller units, which do not have brakes, can weigh as much as the tow vehicle.

U-Haul says extensive research at an Arizona test track and other sites has shown that its weight rules are safe, provided customers use its equipment as instructed.

But the rules conflict with the safety recommendations of some auto manufacturers.

Ford Motor Co., for example, advises owners of the 2007 Crown Victoria, which weighs about 4,100 pounds, to tow no more than 1,500 pounds. Owners of the lighter Mustang are advised not to pull a trailer weighing more than 1,000 pounds.

U-Haul will allow a Crown Victoria to tow a trailer weighing up to 4,400 pounds and a Mustang to pull up to 2,500 pounds.

(U-Haul has banned towing with Ford Explorers since late 2003. Shoen said the SUV was not unsafe but had become "a magnet for attorneys.")

Honda Motor Co. says its vehicles should not pull trailers that weigh more than 1,000 pounds unless the trailers have brakes. General Motors offers the same advice for many of its models. Nissan Motor Co. tells owners of its Pathfinder SUV that trailer brakes "MUST be used" with a trailer weighing 1,000 pounds or more.

Yet U-Haul permits customers driving Pathfinders as well as Honda and GM vehicles to tow un-braked trailers that weigh more than that.

Some vehicle makers also recommend using sway-control devices with trailers above certain weights. These devices come in various forms and include bars or brackets that limit side-to-side movement of the trailer.

U-Haul says such equipment is not needed when "towing a properly loaded U-Haul trailer."

Automakers say their guidelines are meant to promote safety and prevent undue wear on engines, brakes and other components.

"We would consider it unsafe to tow outside of those recommendations because that is what we tested the vehicle to be capable of towing," said Honda spokesman Chris Martin. "We'd rather be safe than have someone get into an accident."

In response, U-Haul said: "Our recommendations are based upon 61 years of experience, knowledge of our rental trailers and exhaustive testing spanning decades."

#### TOWING HAZARDS

CARGO TRAILERS ARE NOT the only U-Haul equipment that is vulnerable to sway.

haul vehicles across town or across the country.

U-Haul imposed tough conditions when it began renting the devices in 1982. It required that the tow vehicle weigh at least twice as much as the one to be towed. This would “ensure adequate braking and control,” a company manual said.

But the rule crimped sales. Towing a typical-size car required a giant pickup or similar vehicle. John C. Abromavage, U-Haul’s engineering director, testified in one lawsuit that the 2-to-1 standard “doesn’t make sense other than to restrict your own market.”

In 1986, U-Haul relaxed the rule, requiring that the tow vehicle be only 750 pounds heavier than the one behind it. Over the next few years, the company increased the maximum weight of vehicles that could be hauled on dollies, and lifted a ban on towing with small jeeps and SUVs.

The new policy boosted dolly rentals. But it conflicted with the guidelines of Dethmers Manufacturing Co., an Iowa firm that produced many of the U-Haul dollies used in the late 1980s and 1990s.

Dethmers recommended that the tow vehicle weigh at least 1,000 pounds more than the dolly and the second vehicle combined.

U-Haul said its relaxed standard still provided a reasonable safety margin. But in the past employees and dealers frequently ignored the rule, sometimes with tragic results, The Times found.

Before renting a dolly, U-Haul agents were supposed to check a manual to make sure the tow vehicle was heavy enough. If not, the rental was to be rejected.

That was news to two employees at a U-Haul dealer in Nogales, Ariz. In February 1999, one of them filled out a contract for a Ford Ranger to tow a Ford Tempo. The other hitched a tow dolly to the Ranger.

Because the two vehicles weighed nearly the same, the rental was prohibited under U-Haul rules. Both employees said later in depositions that they had never seen, much less used, the U-Haul manual.

Maria Lozano-Millan, 32, rode off in the Ranger with her 7-year-old son, Luis, and her sister. They drove to El Paso, picked up the sister’s disabled Tempo, and headed back home.

They never made it.

Descending a hill on Interstate 10 south of Benson, Ariz., the tow dolly and the Tempo fishtailed, pushing the Ranger off the road. The pickup’s roof was crushed as it skidded along a rocky outcropping, killing all three occupants.

U-Haul denied the weight violation caused the accident. Responding to the family’s lawsuit, the company blamed Lozano-Millan’s sister for speeding and for hitting the brakes when the trailer began to sway, contrary to U-Haul’s safety instructions.

But a former U-Haul area manager said under oath that the employees’ oversight caused the “senseless” tragedy.

When he learned of the wreck, testimony showed, he called the dealership’s manager and said: “You just killed somebody.”

U-Haul settled the case with an undisclosed payment. The company said it cut ties with the dealer, who violated “policies and procedures in the rental of this combination.”

“Every day that passes is getting me closer to joining them somewhere,” he said.

## DEADLY RATIOS

THE TIMES REVIEWED police reports and other records on 222 crashes nationwide from 1989 through 2004 in which drivers lost control while pulling U-Haul tow dollies.

In 105 cases, the documents contained enough detail to determine the vehicle weights.

In 51 of those crashes -- 49% -- the rentals violated U-Haul's rule requiring the tow vehicle to be at least 750 pounds heavier than the one being towed.

In some of the crashes, the tow vehicle weighed *less* than the one it was towing.

At least 12 people were killed in the ensuing wrecks.

Unsafe weight combinations may not always be U-Haul's fault. The company relies on the renters of dollies to provide accurate information about what kind of vehicle they will tow, and some do not, former employees said. It could not be determined if that happened in any of the cases studied by The Times.

Casey Curtis, who rented a U-Haul dolly in 2002, said he was never asked what he planned to tow and didn't realize weight could be a safety issue.

Curtis, a construction worker from Orem, Utah, had the dolly hitched to his Suzuki Samurai and used it to tow a Geo Tracker, a vehicle of nearly equal weight.

Going down a hill in Utah in high winds, the dolly began to slide side-to-side. Fighting for control, Curtis overcorrected the steering, a police report said. The trailer came loose and flipped. Curtis crashed head-on into an oncoming car.

Several people were hurt. Curtis, then 25, escaped with minor injuries, but says he still has “slow-motion” nightmares about the wreck.

“They didn't even ask me what I was towing,” he said. “I had no idea what kind of consequences came from not having a heavier tow vehicle.”

Steve Taub, U-Haul's assistant general counsel, said the company has curbed weight violations. In 2001, it began phasing in a computerized towing manual that blocks the rental contract if an agent types in an improper combination. Taub said violations “are less of an occurrence now.”

However, current and former U-Haul dealers and employees said the system, though an improvement, isn't foolproof. A determined customer could lie about what he is towing -- just as a dealer could deliberately enter the wrong vehicle model to complete the sale.

U-Haul also says there have been fewer dolly accidents since a wider model, designed for greater stability, was phased in starting in the late 1990s. Shoen said it has eliminated sway: “We're not experiencing it in the new product.”

But documents produced by U-Haul in a Kentucky lawsuit show that several dozen customers have filed claims alleging that they lost control and crashed using the wider dollies.

The Kentucky case involved just such an accident. Airline pilot Chris Burke was moving his family from Indiana to Florida in 2002, towing a Ford Contour. When the Contour fishtailed on Interstate 65 near Louisville, Burke's Explorer smashed into a



severe spinal-cord damage, leaving her a paraplegic.

The rental met U-Haul's current weight standard, but Burke's lawyers contended that the company should never have loosened its original 2-to-1 weight rule.

"They knew then and they know now that you needed a larger vehicle in front," lawyer Peter Perlman told the jury. "That's just simply physics."

U-Haul's lawyer responded that the current weight rule was "provably safe" and that the wider dolly "is safe, is stable, is controllable."

U-Haul contended that Burke was driving too fast -- estimates of his speed ranged from 50 to 60 mph -- and that he lost control on a rain-slick road.

Nevertheless, the jury found U-Haul liable for renting "unreasonably dangerous" equipment and awarded \$11.6 million in damages, reducing the amount by about a tenth after finding that Corry Burke was not wearing a seat belt.

Chris Burke said the verdict has not diminished his bitterness.

"Profits are No. 1," he said of U-Haul. "Safety concern for their customer is last. My wife will never walk again. There's not a day in my son's life when she will be able to pick him up and hug him. A judgment can't return that."

'HORRIBLE CONDITION'

MARISSA STERNBERG was a born caregiver.

At age 12, she worked with disabled children in a therapeutic horseback-riding program. When her grandmother was going blind, Sternberg read to her and served as her chauffeur. In high school, she nursed her dog back to health when the boxer was stricken with a potentially fatal disease.

She went to grade school in Tucson with Corina Hollander's son. Despite the difference in age, the women became friends, sharing a love of animals.

In September 2003, Sternberg was set to start classes at a school in Denver that trains veterinary technicians, and she asked Hollander to make the drive with her.

Sternberg and her boyfriend, Michael Lemons, packed her bed, television and other belongings into a 6-by-12-foot U-Haul trailer.

They noticed the trailer was in "horrible condition," Lemons recalled. Springs in the suspension were so corroded that they resembled "stalactites," he said.

Sternberg called a U-Haul helpline, and a representative agreed that she should exchange the trailer. But the next morning -- Sept. 3 -- an employee at a local U-Haul center made some minor adjustments and sent her on her way. Hollander said Sternberg was "agitated" about the trailer's condition but eager to get going.

By 10 a.m., they were on the road.

As they left Tucson, the trailer began to rock Sternberg's Land Cruiser -- "like a boat," Hollander recalled.

Sternberg tapped the SUV's brakes and the rocking stopped. This continued intermittently as they left Arizona and entered southern New Mexico.

Late that afternoon, they stopped for gas near Socorro, N.M., and Hollander took the wheel. Soon after, the Toyota reached the crest of a hill on northbound Interstate 25 in the Sevilleta National Wildlife Refuge. Below, the Rio Grande meandered through

reaching 60 mph. The trailer started to swerve. Hollander said she tapped the brakes but could not slow the vehicles. The swaying became violent.

“There was no way you could control it,” she recalled. “It was sheer terror.”

The Land Cruiser flipped, ending up on its side in the passing lane of the interstate. The trailer landed upside-down on the median.

Passersby stopped to tend to the two women and summon help. One of Sternberg’s dogs was badly injured and had to be put down. The other lost a leg but survived.

In the ambulance, Hollander said she told Sternberg: “Marissa, just tell my family that I love them very much, in case I don’t pull through this.”

She said Sternberg responded: “Corina, we’re lucky to be alive. We’re going to be fine. We’re all going to be fine.”

## INOPERABLE BRAKES

EXPERTS who examined the trailer for Sternberg’s family found that its brakes were badly corroded and inoperable.

A month earlier, a customer had rented the same trailer in Missouri, and the U-Haul agent told her “it had no brakes,” she said in a deposition.

By the time Sternberg rented it, the trailer had not had a thorough safety check in more than eight months, according to its U-Haul inspection sticker. It had been rented 19 times in that period.

Under U-Haul’s rules, the trailer should have undergone a “safety certification,” including a check of its brakes, tires and other essential parts, at least every 30 days.

U-Haul initially said skid marks and other evidence suggested the brakes were working at the time of the accident. Later, Shoen acknowledged to The Times that they were not. Even so, the company said defective brakes did not cause the crash.

After its investigators examined the battered trailer, the company said Sternberg loaded it improperly. U-Haul faulted Hollander for going too fast and turning the wheel when the swaying began.

U-Haul also contended that Sternberg was not wearing a seat belt, although the state trooper who investigated the crash concluded that she was.

Without admitting liability, the company settled the suit in May 2005. Sternberg attorney Patrick E. Broom declined to disclose the terms.

Shoen said in an interview that the condition of the trailer was “totally unacceptable ... whether we caused the accident or not.”

U-Haul’s larger trailers have surge brakes that activate when the trailer pushes against the vehicle in front. They are designed to reduce wear on the brakes of the tow vehicle and make it easier to stop the combination.

Safety experts say that once a trailer is swinging erratically, surge brakes won’t help. But by reducing the trailer’s speed, the brakes can help prevent swaying in the first place or limit it before it becomes severe, experts say.

“If you do try to slow down and you can’t get adequate performance from the trailer brakes, it certainly would make it harder to get out of a sway situation,” said Robert Krouse, a General Motors engineer who is chairman of a Society of Automotive Engineers panel on towing.

The Times found recurring problems with U-Haul trailer brakes. As far back as 1966, U-Haul's own insurer told the company it needed to do a better job maintaining them.

"We are increasing the risk of an accident by sending a trailer with faulty brakes on a rental which we advertise and represent as being safely equipped with brakes," wrote Frontier Insurance Agency of Portland, Ore. The memo surfaced in a lawsuit years later.

A 1995 crash in Indiana drove home the potential consequences of brake failure. Two people were killed in the wreck, which police said was caused by inoperable brakes on a U-Haul auto transport.

Shoen said U-Haul recognized in the late 1990s that trailer brakes were not being maintained well enough and responded by requiring more frequent inspections.

In a statement, U-Haul said that despite isolated incidents, there was no "pervasive pattern" of brake failures.

Yet problems have persisted.

Architect Mark Letzer rented a U-Haul trailer in 2003 to move from Los Angeles to New Orleans. With his son, Devin, driving on Interstate 10 in Texas, the trailer whipped violently and their Honda Passport overturned.

The elder Letzer, who was not wearing a seat belt, was thrown from the vehicle and killed.

The family's lawsuit said faulty trailer brakes helped cause the crash. The plaintiffs presented evidence that there was little or no brake fluid in the trailer and some brake pads were missing. The trailer had gone two months without a safety certification, according to its U-Haul inspection sticker. It had been rented nine times during that period.

U-Haul said brake problems didn't cause the accident. It blamed improper loading and said Devin Letzer drove too fast and braked and steered improperly when the trailer began to snake. His father contributed to the crash by grabbing the wheel, the company said.

U-Haul settled the suit in February 2006.

Eric Christensen, an engineer, was moving his family from Utah to New Hampshire in 2001, towing a trailer behind his Explorer. His father, Ronald V. Christensen, was riding with him.

On an icy patch of Interstate 80 in Wyoming, the trailer whipped and both vehicles slid off the road. Neither man was injured, and they forged on, intending to exchange the trailer for a new one at a U-Haul center 70 miles ahead.

Minutes later, coming down a steep grade, the trailer began swaying wildly. The Explorer overturned and rolled twice, killing Ronald Christensen.

The family sued, citing expert reports that the trailer's brake-fluid reservoir was dry. U-Haul records indicated that the trailer was more than a month overdue for a safety inspection.

U-Haul contended that the brakes were working at the time of the accident and lost fluid later, when a hose was damaged in the towing of the wreckage.

The company blamed Eric Christensen for driving too fast and braking and steering

face my mom and my brothers and sisters thinking I was responsible for my dad's death."

Lew Jones was moving furniture from North Carolina to Rochester, N.Y., in 2005 when he veered to avoid another car. Jones said his U-Haul trailer jackknifed, pushing his Jeep Cherokee into a guardrail. Jones' wife escaped with minor injuries; he was unhurt.

A Virginia state trooper found no fluid in the trailer's brake reservoir. Because state law holds the driver responsible, he gave Jones an \$86 ticket for driving with defective brakes. Jones' auto insurer slapped him with a three-year, \$846 surcharge.

U-Haul denied the wreck resulted from a brake problem but declined to elaborate.

Trooper Scott T. Parsons said the accident might not have happened if the trailer had working brakes. "There's a reason those brakes are on those trailers," he said, "and that's to help in control of the vehicle."

#### NO BRAKES AT ALL

WITH SOME U-HAUL trailers, the issue is not bad brakes but a lack of brakes.

Most states require surge brakes on larger trailers such as the model Sternberg rented. At least 14 states also mandate brakes on smaller trailers under common conditions. Yet U-Haul ignores this requirement, renting small and midsize trailers that have no brakes.

In general, the state regulations say that trailers below 3,000 pounds must have brakes if they exceed 40% of the tow vehicle's weight. By that standard, two popular, un-braked U-Haul cargo trailers are frequently in violation of the rules.

For instance, U-Haul's 5-by-8-foot trailer, which weighs 2,700 pounds fully loaded, would be required to have brakes unless the tow vehicle weighed at least 6,750 pounds. Only giant pickups weigh that much. U-Haul routinely rents the trailer to customers using much smaller tow vehicles.

Shoen acknowledged that U-Haul was not in compliance with the state motor vehicle codes but suggested it was a trifling matter. To make his point, he pulled out a news clipping about a 201-year-old North Carolina law barring unmarried couples from living together.

What's important, Shoen said, is that vehicles towing U-Haul equipment can stop within state-mandated braking distances.

"The laws you're referring to are well-known to people at the state jurisdictions," he said. "But what happens is they enforce, or don't enforce, depending upon what the public good is."

#### WITHOUT WARNING

JOHN ABROMAVAGE, U-Haul's engineering director, once testified that as a witness for the company in some 200 cases, he had never seen an accident he regarded as U-Haul's fault.

Richard Klein, the trailer expert and U-Haul consultant, said in an interview that "U-Haul trailers and tow dollies are the most highly tested equipment in the industry.... Sway is not a problem with a properly loaded and driven trailer."

Peter Keith, the Canadian safety expert, offered a similar appraisal based on investigating tow-dolly crashes for U-Haul: "These accidents never occur when a vehicle is being driven in anywhere close to the manner in which it's meant to be."

They should know better, according to U-Haul. Taub, the U-Haul attorney, said the company's safety guide is given out "virtually without exception."

But former U-Haul employees and dealers said many customers did not receive guides. Some said they were too busy to distribute them. Steve Eggen, a former dealer in Alameda, Calif., said he left the pamphlets on a counter, and at most half his customers picked one up.

Tammie Wise, a onetime dealer and U-Haul general manager in Northern California, said that with long lines of anxious customers and few employees, "there just wasn't enough time" to make sure everyone got a copy.

In addition, the guides are not available in Spanish, though many customers are Latino. Shoen said a Spanish-language guide was "a nice idea," but "we don't have a big demand for it."

Christian S. Strong said he and Mindy Swegels were never informed of the risks when they rented a trailer to tow his motorcycle.

Strong and Swegels, who had just become engaged, were returning to Kentucky from a Florida vacation in May 2002. On Interstate 75 in Tennessee, the trailer swerved and their Ford Explorer flipped.

Swegels, who was not wearing a seat belt, suffered multiple fractures and a head injury that left her brain-damaged, according to her lawsuit. U-Haul blamed inattentive driving and excessive speed.

Swegels and Strong said that they never received the U-Haul user guide and that trailer decals citing a 45-mph speed limit were missing or illegible.

To bolster their case, their engineering experts rented 12 U-Haul trailers at various sites. They said they were given user guides only twice.

In February, the jury rejected the claim that the trailer was defective but found U-Haul negligent for failing to warn about the risks. It awarded nearly \$2.6 million in damages.

Strong said that if he'd known about the dangers of towing above U-Haul's recommended 45-mph speed limit, he would have left his motorcycle behind.

"I'm not going to risk my life to take a bike 850 miles," he testified.

Even when clearly communicated, the 45-mph limit is problematic.

It's a challenge for anyone traveling cross-country or around California, since prevailing speeds are often at least 70 mph on interstates. Some experts say going 45 mph on a major highway is hazardous because it increases the chance of being hit from behind.

Shoen said the 45-mph ceiling was meant to "create a compensatory attitude." Customers may not go 45, but "maybe they'll go 55 or 60," he said.

Yet, when accidents happen, a standard U-Haul defense is that the driver exceeded the 45-mph limit.

Failing to properly distribute the load in the trailer is another customer error often cited by U-Haul. A company manual once called it "sheer suicide!"

The safety guide tells customers to put 60% of the weight in the trailer's front half to promote stability. The instruction is underscored by a line inside the trailer. The

A portable scale that could help renters ensure proper loading has long been available. U-Haul has used such a scale during accident investigations, but it does not offer one to customers to help prevent accidents.

Sherline Products Inc. of Vista, Calif., sells a portable trailer scale to farmers, ranchers and owners of recreational vehicles for \$110.

Craig Libuse, the company's marketing director, said executives wrote to U-Haul in the mid-1990s offering to design a version that could be built into U-Haul trailers. Another option was for U-Haul to rent scales to customers.

Sherline said the scale's wholesale cost would be \$55.

Libuse said U-Haul never responded. U-Haul said it had no record of the proposal. The company said a scale was unnecessary because its loading instructions had proved sufficient.

"There's no mystery to loading a trailer," Shoen said. "You need it heavier in front. It's just that simple."

HOLDING ON

WHEN BRIAN STERNBERG arrived at the hospital in Albuquerque, he didn't recognize his daughter.

Marissa had suffered numerous fractures, as well as heart and lung damage and a severe head injury. The cumulative trauma caused brain damage that became evident soon after the accident.

By the time her father saw her, she could no longer speak or move. Physicians put the odds against her survival at 200 to 1.

But Marissa held on. She spent four weeks in the trauma unit of the University of New Mexico Hospital before being transferred to a rehabilitation center in Austin, Texas. Her mother, Lisa, spent eight months with her there.

Marissa's first word was: "Home." Since then, she has spoken only an occasional word.

The Sternbergs, who have long been prominent in Tucson philanthropic circles, built an airy, art-filled house for their daughter next to their own home in the foothills of the Santa Catalina Mountains. Four caregivers tend to her around the clock.

"I'm looking to make her comfortable," said Brian, 48, who owns a wholesale food company with his brother.

After discovering that the nearest neurological rehabilitation center was more than 100 miles away in Phoenix, the Sternbergs funded construction of a state-of-the-art facility in Tucson.

The center has 100 patients and a staff of 10. Marissa, now 23, receives therapy there five days a week. She has made progress, but doctors have told the family the most they can expect is that Marissa will learn to "follow commands," her father said. He called this "the best case, and the worst case."

"It's not like tomorrow's going to be a different day," he said. "It's a dream we just haven't woken up from, a nightmare."

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About U-Haul International

Market niche: Serves do-it-yourself movers in the U.S. and Canada with rental trucks and trailers, packing equipment and supplies, self-storage sites and other products.

Financial highlights: Parent company Amerco reported \$2.1 billion in revenue in fiscal 2007. U-Haul accounted for 90%. Most of the rest was from insurance subsidiaries Oxford Life and Republic Western.

Headquarters: Phoenix.

Fleet: 100,000 trucks; 78,500 trailers; 31,000 tow dollies and other devices.

Workforce: 18,000 employees.

Locations: 1,450 company-operated centers, 14,500 independent dealers.

Brief history: Founded in 1945

by Navy veteran L.S. Shoen. His son Edward J. "Joe" Shoen succeeded him as chairman in 1986, in a bitter family struggle. He and two brothers own 43.6% of company stock.

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Tips for towing

Trailers can be unstable on the road unless loaded and driven carefully. Here are some pointers on towing safely:

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40%

of weight in rear

60%

of weight in front

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Do

- Tow with a vehicle that is heavier than the trailer. The heavier the lead vehicle relative to the trailer, the safer you are.

- Load the heaviest items in the front half of the trailer, so that it holds 60% of the total weight. Recheck during your trip since goods may shift.

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Don't

- Do not hit your brakes if the trailer starts to swing. That could make the swinging worse.
- Do not try to straighten a swaying trailer by steering. Hold the wheel of your vehicle straight until the swinging subsides.
- Avoid towing in wet, icy or windy conditions.

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Sources: Safety experts, U-Haul International Inc. Graphic by Raoul Ranoa Los Angeles Times

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About this series

Times reporters Alan C. Miller and Myron Levin reviewed thousands of pages of legal filings, police reports and other records, including consumer complaints filed with the Better Business Bureau. They interviewed more than 200 people, including about 60 current and former U-Haul employees and dealers. They also spoke at length with senior U-Haul executives and toured company facilities in Phoenix.

TODAY

How U-Haul policies have increased the risk of towing accidents.

MONDAY

An aging fleet and spotty maintenance result in breakdowns and worse.

TUESDAY

After accidents, U-Haul has repeatedly lost or spoiled evidence.

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