

Status Report

Relative Average Loss Payments Per Insured Vehicle Year For 1984 Model Year Passenger Vehicles With the Best and Worst Collision Coverage Results*						
HIGH VOLUME (At least 1% of total exposure)	Best			Worst		
		Chevrolet Caprice	4 Dr.	57	Pontiac Firebird	Sp.
	Oldsmobile Delta 88	4 Dr.	60	Chevrolet Camaro	Sp.	160
	Buick LeSabre	4 Dr.	71	Toyota Celica	2 Dr.	126
	Chevrolet Celebrity	4 Dr.	75	Ford Thunderbird	Sp.	118
	Toyota Camry	4 Dr.	75	Pontiac Fiero	Sp.	117
	Oldsmobile Ciera	4 Dr.	75			
LOW VOLUME (Less than 1% of total exposure)	Plymouth Voyager	P.V.	46	Porsche 944 Coupe	Sp.	239
	Oldsmobile Firenza	S.W.	48	Nissan 300ZX	Sp.	236
	Chevrolet Caprice	2 Dr.	50	BMW 318i	Sp.	212
	Dodge Caravan	P.V.	51	Volkswagen Scirocco	2 Dr.	202
	Mercury Grand Marquis	4 Dr.	57	Nissan 300ZX 2+2	Sp.	199

P.V. = Passenger Van; S.W. = Station Wagon; Sp. = Sports or Specialty
*100 represents the average for all 1984 passenger vehicles (\$153).

American Cars Fare Better Than Imports

Most 1984 cars with the best insurance collision claims records are American-made models, the Highway Loss Data Institute (HLDI) has reported.

Of the best-selling models, the car with the top record is General Motors' Chevrolet Caprice with a result 43 percent better than average. The high-volume car with the worst record is the Pontiac Firebird, 74 percent worse than the average of all cars.

Among low-volume sales models, the Plymouth Voyager passenger van had the best results, 54 percent better than average. The Porsche 944 Coupe fared the worst, 139 percent worse than the average for all cars.

(Cont'd on page 2)

Breed Air Bag System Passes NHTSA Tests

Based on preliminary testing, the National Highway Traffic Safety Administration (NHTSA) has concluded that an all-mechanical air bag system is feasible.

The system, designed by a New Jersey firm, Breed Corp., promises to dramatically reduce the cost of equipping automobiles with air bags. (See *Status Report*, Vol. 19, No. 19, Dec. 22, 1984.)

The Breed design was evaluated in a series of crash tests and rough road driving as part of a development contract.

During the next phase of the contract, NHTSA will equip a police fleet of 100 Chevrolet Impalas and may

(Cont'd on page 2)

Travelers Takes Delivery Of First of 600 Air Bag Equipped Ford Tempos

The first of 600 air bag equipped 1985 Ford Tempos has been delivered to Travelers Insurance Companies.

Company officials, longtime motor vehicle safety advocates, took the delivery on the same day the Department of Transportation received the first of 5,000 air bag-equipped Tempos. (See "Ford Delivers," Page 6.)

The company said it hoped its \$5 million order would spur other safety-conscious corporations to follow suit. Travelers is the first corporation to have placed an order for the Tempos, which are equipped with driver-side supplemental air bags.

"We're proud to be able to initiate this action to protect our own people who drive company cars on Travelers' business and to serve as an example for all motorists and other safety-minded corporations," said Frank E. Walton, executive vice president of the company.

Travelers has also instituted a mandatory belt use policy for employees who travel on company business.

Walton said the company endorses passage of state mandatory seat belt use laws provided they won't prevent implementation of a rule requiring automatic air bags or seat belts in new cars. (See *Status Report*, Vol. 19, No. 19, Dec. 22, 1984.)

In March last year, Robert F. McDermott, head of USAA (United States Automobile Association), said his company would buy 150 of the cars when they become available. Since then, the insurer has decided to purchase about 200, William Steponkus, a company representative said.

Breed Air Bag System Passes NHTSA Tests (Cont'd from page 1)

later expand the fleet to equip as many as 1,000 with the Breed retrofit air bag kits, Michael Finkelstein, head of NHTSA's research branch, told *Status Report*.

"We are moving ahead and are very pleased with the progress so far," Finkelstein said. He noted that another police fleet test of air bags equipped with electronic sensors produced by the Arizona firm of Romeo Kojyo is also going well, with more than a

dozen deployments logged so far.

The Breed system was tested on Ford LTDs and Dodge Diplomats over rough terrain, and performed well, NHTSA officials reported.

The Fords were tested in impacts of about 5 mph and the systems did not deploy — a desirable result. In higher speed impacts at 12 and 30 mph into a frontal fixed barrier, the systems did deploy and produced head injury results (HICs) of 25 and 247, respectively — the latter result being well below the level of 1,000 set by NHTSA as the standard not to be exceeded in a 30 mph barrier impact under Federal Motor Vehicle Safety Standard 208. That standard must be met when a requirement for either automatic seat belts or air bags goes into effect starting with the 1987 model year.

The researchers also crashed an LTD at 30 mph into a 12 inch pole and the air bag deployed, providing a HIC rating of 187.

American Cars Fare Better Than Imports (Cont'd from page 1)

As reported in previous years by HLDI, a research organization that collects and analyzes insurance claims and coverage information, cars of the same size and general body style had significantly wide variations in collision results. For example, results for the small, two-door Subaru hatchback and Mercury Lynx were 13 percent better than average, but the Volkswagen Scirocco and Mitsubishi Cordia results were about 100 percent worse than the average.

However, in general, the frequency with which claims are filed, the average loss payments for each claim, and the average loss payments per insured vehicle year grew smaller as car size increased, a finding that has remained constant for years.

The HLDI study also reports collision coverage results for vans, pickup trucks, and utility vehicles for the 1982-84 model years.

Overall, Ford vans had particularly good collision claims results and small pickups — especially the Subaru and Toyota models — had very poor results, HLDI said.

The report covers nearly 200 of the 1984 models in their first year on the road and also contains the results for 1982 and 1983 models. It is based on collision coverage and loss data provided by 13 of the nation's largest automobile insurers.

Copies may be obtained by asking for HLDI report R84-2, Publications, Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

Relative Average Loss Payments Per Insured Vehicle Year For 1983 Model Year Passenger Vehicles With the Best and Worst Collision Coverage Results*						
HIGH VOLUME (At least 1% of total exposure)	Best			Worst		
		Buick LeSabre	4 Dr.	61	Chevrolet Camaro	Sp.
	Oldsmobile Delta 88	4 Dr.	63	Ford Mustang	2 Dr.	148
	Oldsmobile Ninety Eight	4 Dr.	66	Toyota Celica	2 Dr.	126
	Chevrolet Caprice	4 Dr.	68	Honda Accord	2 Dr.	119
	Chevrolet Celebrity	4 Dr.	74	Ford Thunderbird	Sp.	118
LOW VOLUME (Less than 1% of total exposure)	Best			Worst		
		American Eagle 30	S.W.	54	Mitsubishi Starion	Sp.
	Dodge Diplomat	4 Dr.	56	Porsche 911 Coupe	Sp.	250
	Ford Crown Victoria	4 Dr.	61	Porsche 944 Coupe	Sp.	222
	Mercury Grand Marquis	4 Dr.	62	Datsun 280ZX	Sp.	215
	Pontiac Phoenix	4 Dr.	62	Renault Fuego	Sp.	203
	Pontiac Bonneville	S.W.	62			

P.V. = passenger van; S.W. = station wagon; Sp. = Sports or specialty
*100 represents the average for all 1983 passenger vehicles (\$143).

Relative Average Loss Payments Per Insured Vehicle Year For 1982 Model Year Passenger Vehicles With the Best and Worst Collision Coverage Results*						
HIGH VOLUME (At least 1% of total exposure)	Best			Worst		
		Oldsmobile Delta 88	4 Dr.	59	Pontiac Firebird	Sp.
	Ford Escort	S.W.	67	Chevrolet Camaro	Sp.	154
	Chevrolet Citation	4 Dr.	73	Toyota Celica	2 Dr.	130
	Chevrolet Cavalier	4 Dr.	77	Ford Mustang	2 Dr.	127
	Buick Skylark	4 Dr.	79	Toyota Corolla	2 Dr.	119
LOW VOLUME (Less than 1% of total exposure)	Best			Worst		
		Chevrolet Impala	4 Dr.	59	Porsche 928 Coupe	Sp.
	Mercury Marquis	4 Dr.	60	Porsche 924 Coupe	Sp.	293
	Ford LTD	2 Dr.	60	Porsche 911 Coupe	Sp.	251
	Pontiac Bonneville	S.W.	60	Datsun 280ZX	Sp.	228
	Chevrolet Malibu	W.	63	Alfa Romeo Spider Veloce	Sp.	222

P.V. = passenger van; S.W. = station wagon; Sp. = Sports or specialty
*100 represents the average for all 1982 passenger vehicles (\$131).

Misuse of Child Restraints Reduces Protection For Infants and Toddlers

A new government study of child safety seat use has revealed that 65 percent are being employed in ways that lessen protection for infants and toddlers in crashes.

In 10 cities, observations of over 1,000 infants and toddlers in safety restraints were conducted at fast food restaurants in a study conducted for the National Highway Traffic Safety Administration. The survey was undertaken in order to learn how child restraints are being misused and why.

In a 1975 study by the Insurance Institute for Highway Safety, an observational survey of more than 5,000 cars revealed that of the children riding in child safety seats, 73 percent of the systems were used incorrectly. (See *Status Report*, Vol. 10, No. 10, May 12, 1975.)

Out of 734 observations in the government's study 40 percent of the toddlers seen were not harnessed in their seats. One-third did not have their seat properly retained by an automobile seat belt, and 85 percent of restraint systems that require the use of a tether were, in fact, not tethered. Many motorists were aware their children were not harnessed. A number of them said that the toddler habitually removed the harness and they had given up putting it on; others claimed that the child did not like the harness or that it made the child uncomfortable. Others said they thought it unnecessary to use the restraining harness or shield.

- Eighty percent who had child restraints that require the use of a tether said they were aware of the requirement but were reluctant to drill a hole in the vehicle in order to install it.
- Nearly 75 percent of those who had restraints held in place by incorrectly routed vehicle seat belts said they didn't realize an error had been made.

In the study, a total of 150 infant seats were seen. Of those, slightly over half were manufactured for infants only, while the rest were convertible models that can be used by toddlers as well.

All seats used by infants (under 20 pounds) must be installed so that they face the rear of the vehicle. This is to assure that the baby's fully supported back will absorb the forces of a crash, rather than his more vulnerable chest and abdomen. Of those observed, though, one-third were installed facing the wrong way. And of the total, 60 percent were misused, one way or another, the researchers said.

Child Restraint Guidelines

The National Transportation Safety Board is working on guidelines for a national drive to increase the proper use of child safety seats.

"Child safety seat laws are now on the books in 49 states and the District of Columbia, but the actual fact is that less than 40 percent of all Americans use safety seats for their children and 70 percent of those seats are not being used correctly," Patricia Goldman, vice chairman of the safety board, told participants in a one-day meeting on the issue.

The safety board hopes to learn why parents don't use safety seats and develop strategies for increasing their use. The unit also intends to find out which types of incorrect child restraint usage are most hazardous.

Of the infants seen in such restraints, 29 percent had improperly fastened harnesses. About 9 percent of these systems were not held in place by a vehicle belt but were simply resting on the seat. Another 14 percent were held in place by an incorrectly routed seat belt, they said.

Of the 122 toddlers seen using booster seats, 75 were incorrectly restrained, the researchers reported.

In general, the researchers found that misuse of child safety seats was more common when the driver was not wearing his own safety belt. They also found that the older the seat, the more likely it was being incorrectly used. Newer, easier to utilize systems were misused less often, they said. They also found that parents who bought the systems generally had a better track record, compared with parents who had received the restraints as a gift.

Among the countermeasures for safety seat misuse proposed by the researchers were:

- Improved seat designs that are more comfortable for the child, easier to use, and reduce the opportunity for making mistakes.
- A requirement for a tether anchorage in the rear deck of all cars. (NHTSA has been considering such a regulation since 1981. See *Status Report*, Vol. 16, No. 1, Jan. 19, 1981.) Or as an alternative, redesigning the seats to eliminate the need for a tether.
- Improved educational opportunities for the public.

Fatal Rollovers Linked To Inadequate Banking On Grades and Curves

Fatal rollover crashes in Georgia and New Mexico have been linked to inadequate banking on grades and curves, researchers for the Insurance Institute for Highway Safety have reported.

Over 40 percent of single vehicle crashes on non-freeway roads occur on curves or grades. The Institute study concludes that inadequate banking — the vertical cross slope or superelevation on curves — presents a risk to drivers that should be eliminated from the road system.

The study analyzes data on road curvature, grade, and cross slope at fatal rollover crash sites and compares them with sites one mile upstream from each crash site. The crash sites were also compared with randomly selected sites in Georgia and New Mexico.

The researchers found that sites where fatal crashes had occurred had less banking than comparison sites, even though they had the same curvature. The paper, presented to the Transportation Research Board, is the first detailed examination of the influence of banking on crashes.

As a car travels along a curve, friction tends to hold it on course. However, as the car's speed increases and the degree of the curve increases, additional measures are required to prevent the car from sliding outward.

Highway engineers raise the outside edge of the pavement and lower the inside edge to neutralize that force, depending on the design speed of the road.

The researchers also found in their study of more than 280 fatal crash sites, that compared with roads with similar flat curves, the banking was deficient on curves with grades, especially on downhill grades. They added, "the prevalence of *reduced* superelevation at such locations is clearly dangerous." They noted that the American Association of State Highway and Transportation Officials partially endorses the use of increased banking on downhill curves to allow for higher rates of speed.

Correction

In the Jan. 19, 1985 issue of *Status Report*, the bottom table on Page 5 contained an error. The title on the fourth column of the table should not have been Relative Claim Frequency. It should have been Relative Average Loss Payments Per Insured Vehicle Year.

For a copy of the paper, "Superelevation and Roadway Geometry: Deficiency at Crash Sites and on Grades," by Paul L. Zador, Howard Stein, Jerome Hall, and Paul Wright, write Publications, Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

Coalition Urges Ban On Beer and Wine Ads On Radio and Television

What are the effects of the hundreds of beer and wine ads the average teenager sees on TV each year? Does this pervasive merchandising relate to the high rate of fatal crashes after drinking of 16 - 24 year olds?

These and other questions were raised recently at a hearing of the Senate Subcommittee on Alcoholism and Drug Abuse, chaired by Sen. Paula Hawkins, Florida Republican, on the relationship between alcohol advertising and alcohol use and misuse.

Said Sen. Hawkins, "With nearly 25,000 alcohol related deaths we have created a virtual Vietnam on

"Despite industry's claims that ads are not targeted at heavy drinkers or youths, the Coors Lite ad tells viewers to drink 'beer after beer.'"

—MICHAEL F. JACOBSON

our streets and highways...we need to find out why and determine once and for all any cause or linkages to this tragedy."

In more than four hours of testimony before the subcommittee, representatives for the beer, wine, and broadcast industries denied there is any relationship, while a broad coalition of safety and health groups urged broadcasters to eliminate such ads or provide equal time for messages about the risks of drinking.

The hearing room audience saw a brief videotape of beer and wine commercials presented by Michael F. Jacobson of the Center for Science in the Public Interest (CSPI). Said Jacobson, "Despite industry's claims that ads are not targeted at heavy drinkers or youths, the Coors Lite ad tells viewers to drink 'beer after beer and don't hold back...turn it loose.' Harvey's Bristol Cream Sherry teaches viewers to switch from traditional glasses to giant tumblers. Anheuser-Busch uses actor-athletes to show viewers that Bud Lite will bring out their best."

The CSPI is coordinating a diverse group of organi-

(Cont'd on page 6)

Coalition Urges Ban on Beer And Wine Ads On Radio and Television (Cont'd from page 5)

zations favoring the ad ban, including the National Parent Teacher Association, American Council on Alcohol Problems, United Methodist Church, and Action for Children's Television, under the umbrella of Project SMART (Stop Marketing Alcohol on Radio and Television).

Hard liquor is not advertised on radio and television; a voluntary ban of such ads has been in existence since 1934. Peggy Sapp, executive director of Florida Informed Parents, pointed out that "one ounce of liquor, one 4 ounce glass of wine, and one beer all contain essentially the same amount of alcohol."

Martha Baker, president of the National Council on Alcoholism testified that "the recently released 1984 NIDA [National Institute of Drug Abuse] High School Senior Survey shows 40 percent of those seniors responding indicating having five or more drinks on one occasion in the last two weeks and only 5 percent of all students surveyed disapproving of that behavior."

Although they maintain that broadcast ads affect only the choice between brands, not overall consumption, the broadcast, beer, and wine industries have recently stepped up their efforts to police themselves and to provide service announcements on drunk driving. However, Elaine Stienkemeyer, president of the National PTA pointed out, the \$7.1 million in free time for public service announcements last year is dwarfed by the \$700 million in annual revenues for beer and wine commercials.

Edward O. Fritts, speaking for the National Association of Broadcasters said, "Broadcasters' efforts to promote awareness of the dangers of alcohol misuse in their programming have been under way for many years in local communities around the country. The growing national intolerance for drunk driving has been amplified and publicized by broadcasters around

Correction

In the Jan. 19, 1985, issue of *Status Report*, a phrase was inadvertently dropped from a sentence in the article entitled "The Trapdoor" on Page 2. The sentence should have read: "The U.S. Department of Transportation (DOT) is phasing in a requirement that new cars be equipped with automatic restraints such as air bags or automatic seat belts, starting with 10 percent of 1987 models and reaching 100 percent of production with 1990 models."

the nation in a variety of news stories, editorials, full-length public affairs programs and public service announcements."

Hearings will be held on the alcohol advertising issue in the House this spring sponsored by Rep. Timothy Wirth, Colorado Democrat, of the Subcommittee on Telecommunications, Consumer Protection, and Finance.

Ford Delivers First Air Bag Equipped Cars To Transportation Department

Ford Motor Co. has delivered the first of nearly 5,400 air bag equipped 1985 Tempos to the federal government.

In a ceremony marking the event, Ford President Donald E. Peterson told Transportation Secretary Elizabeth Dole and Ray Kline, acting head of the General Services Administration (GSA), the company's participation in the program underlines its commitment to safety.

The Tempos are equipped with driver-side air bags as part of a \$35 million fleet demonstration project to obtain additional experience with contemporary air bag technology. The cars are also equipped with 5 mph bumpers and high-mounted rear brake lights, and half are equipped with antilacerative windshields. (See *Status Report*, Vol. 19, No. 4, March 3, 1984.)

Kline noted that GSA has a vehicle fleet of about 85,000 cars at 27 locations around the country. "Depending on how things work out," he said, "we may be looking forward to other opportunities [to purchase additional air bag cars] within the government."

Dole said the agency would encourage all who use the cars to buckle up. "Through the safety belt and the air bag, they can receive the ultimate in protection." Dole said.

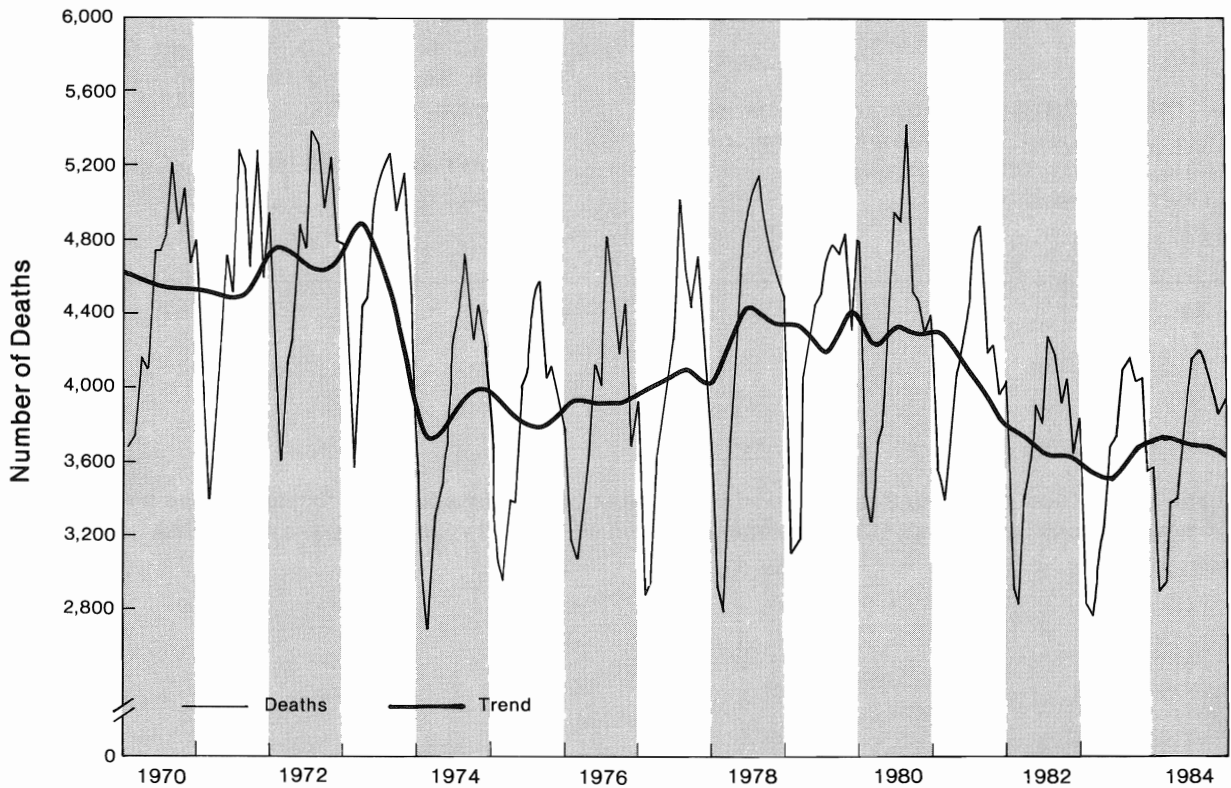
If any of the air bags are deployed in impacts, the National Highway Traffic Safety Administration will send officials to investigate the circumstances and how well the systems operate.

Ford's safety director, Roger Maugh, told *Status Report* that with additional orders from two insurance companies, USAA and Travelers, at least 6,500 of the driver side systems will be produced this model year. (See "Travelers Takes Delivery," page 2.) He said the company will begin its marketing program in earnest now that the cars are available.

Traffic Deaths Increase in 1984

For the calendar year 1984, traffic fatalities increased by 3.5 percent above the 1983 total. The declining trend in motor vehicle deaths ended in the middle of 1983 when monthly deaths were occurring at the equivalent of an annual rate of about 42,000 deaths. In 1984 the deaths totalled about 44,400.

Monthly Deaths and Trend January 1970 — December 1984



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