

HLDI Releases Loss Data For 1976 Cars

The latest report by the Highway Loss Data Institute shows that previously reported patterns in automobile insurance losses have continued for 1976 model cars:

- there are substantial differences in losses among various automobile series; this is true both within and between market classes.
- among the four major market classes – sub compact, compact, intermediate and full size – sub compacts continue to have the worst loss experience and full size the best;
- two door cars have, in general, higher losses than corresponding four door models.

THREE YEAR COMPARISON

The current HLDI report presents results for three model years – 1974-76. The new report details the loss experience of the 1976 models during their first year since introduction, the 1975 models during the first two years, and 1974 models during the first three years. (See table on page 2.)

The HLDI results show that for market classes the loss experience for the 1976 models was generally similar to that of the 1975 models, and that both of these model years had considerably higher losses than those for the 1974 models.

The average loss payment per claim increased consistently from the first to the third year.

The results for the 1976 models were based on more than 700,000 insured vehicle years of exposure, those for the 1975 models on more than 1.8 million insured vehicle years, and those for the 1974 models on more than 4 million insured vehicle years. Individual results for all three model years were based on substantially more exposure than previously reported for these model years. It should be kept in mind that, in general, the greater the exposure of a type of vehicle, the more confidence can be placed in the results for it.

“Exposure,” as used in HLDI reports, means the amount of time during which the vehicles studied have been covered by insurance. Ten thousand vehicles, each having been in operation for six months and covered by collision insurance during that time, would produce 5,000 “insured vehicle years of exposure.”

HLDI was formed in December 1972, as an outgrowth of a special data project initiated earlier by the Insurance Institute for Highway Safety. (See *Status Report*, Vol. 8, No. 1, Jan. 3, 1973.) It is a nonprofit organization that gathers, processes and provides the public with insurance data concerned with human and economic losses resulting from highway crashes.

LOSS PAYMENT SUMMARY ¹ BY MARKET CLASS, MODEL YEAR, AND YEARS SINCE INTRODUCTION
1976, 1975, AND 1974 MODELS – COLLISION COVERAGES

Market Class	Years Since Intro.	Claim Frequency Per 100 Insured Vehicle Years			Average Loss Payment Per Claim			Average Loss Payment Per Insured Vehicle Year		
		1976 Models	1975 Models	1974 Models	1976 Models	1975 Models	1974 Models	1976 Models	1975 Models	1974 Models
All Combined	1st	9.8	10.3	9.5	\$ 659	\$ 633	\$ 534	\$ 65	\$ 65	\$ 51
	2nd		10.2	9.9		636	568		65	56
	3rd			9.3			601			56
Sub Compact ²	1st	9.5	9.8	9.3	659	673	541	63	66	50
	2nd		10.0	9.9		671	588		67	58
	3rd			9.3			626			58
Compact ³	1st	8.4	8.9	8.4	635	616	512	53	55	43
	2nd		9.0	8.7		627	553		56	48
	3rd			8.4			593			50
Intermediate ⁴	1st	9.6	10.0	9.3	634	586	517	61	59	48
	2nd		9.9	9.7		601	542		59	53
	3rd			9.1			577			53
Full Size ⁵	1st	8.6	9.4	8.5	579	565	478	50	53	41
	2nd		9.3	9.2		565	512		53	47
	3rd			8.8			544			48
Luxury ⁶	1st	11.5	12.7	11.4	725	682	585	83	87	67
	2nd		12.6	12.5		693	584		87	73
	3rd			11.6			612			71
Specialty ⁶	1st	13.3	13.1	12.3	698	715	578	93	94	71
	2nd		12.8	12.6		699	645		89	81
	3rd			11.3			671			76
Exp. Specialty ⁶	1st	11.0	12.9	11.9	748	678	624	82	87	74
	2nd		12.6	12.4		660	632		83	78
	3rd			11.4			667			76
Sports ⁶	1st	13.6	14.9	14.7	1,223	1,425	1,184	166	212	174
	2nd		14.1	16.8		1,121	1,133		158	190
	3rd			14.8			1,243			184

¹ Results are standardized to the exposure distribution:

DEDUCTIBLE	YOUTHFUL OPERATOR	NO YOUTHFUL OPERATOR
\$ 50	5%	35%
\$100	15%	45%

² Wheelbase less than or equal to 101 inches.

³ Wheelbase greater than 101 and less than or equal to 111 inches.

⁴ Wheelbase greater than 111 and less than or equal to 120 inches.

⁵ Wheelbase greater than 120 inches.

⁶ Market class assignments not by wheelbase.

HLDI, December, 1976

Members of HLDI are: Aetna Life & Casualty, Allstate Insurance Co., The Hartford Insurance Group, The Home Insurance Co., Kemper Insurance Group, Liberty Mutual Insurance Co., Nationwide Mutual Insurance Co., Prudential Property and Casualty Insurance Co., State Farm Mutual Automobile Insurance Co. and The Travelers Insurance Co.

Copies of the report, *Automobile Insurance Losses, Collision Coverages: Variations by Make and Series, 1976 Models During Their First Year, 1975 Models During Their First Two Years, 1974 Models During Their First Three Years* (HLDI R76-2), can be obtained from the Highway Loss Data Institute, Watergate Six Hundred, Washington, D.C. 20037.

NTSB Official

'Highway Engineers Must Be Made Accountable'

Many highway engineers lack "an adequate concern for the health, safety and welfare of the highway employee and the public," according to Roy Anderson, former highway accident investigator for the National Transportation Safety Board and now head of NTSB's new Governmental Liaison Branch. Anderson called for the passage of "strong [state] licensing laws with vigorous enforcement by a government entity" to hold "highway engineering professionals charged with a public trust . . . accountable to the public they are supposed to serve."

At a recent meeting of the American Association of Automotive Medicine, Anderson cited the behavior of top-level state highway engineers in handling traffic on a 22-mile Interstate improvement project in Virginia as an illustration of widespread "failure in ethical concern" among highway engineers. Following a three-fatality crash on the project, an NTSB investigation disclosed numerous violations of safe traffic control principles and federally-adopted standards, many of which "would have been obvious to the most unskilled lay observer," according to Anderson, who conducted the investigation.

He found that engineers working day-to-day on the project had repeatedly pointed out to "the highest echelons of the [state highway] department" many of the hazards later cited in the NTSB crash investigation report. The warnings, however, were ignored, he said. As an example he quoted a project engineer's memo which described the wooden barricades used throughout the lengthy project as "extremely dangerous traffic hazards." The memo urged the central office to "take all action possible on this matter immediately" to reduce "the possibility of tragedy occurring." Anderson said the engineer's "pleas were apparently unanswered and the tragic death of the mother and her two babies occurred 30 days later."

Anderson also found documents showing that another state engineer, sent to examine that accident site, reported that there were no traffic hazards at the location and no changes should be made. Within two weeks of this report, "another fatal accident occurred at the same location," involving the same traffic control violations as the earlier crash.

Besides ignoring the safety recommendations of its own employees, Anderson reported, the Virginia highway department gave only "a slow response" to NTSB's recommendations following the first fatal crash. Only when motorists, members of the Center for Auto Safety, and the AFL-CIO (representing endangered workers) sued the state over the project's unsafe conditions were improvements made. (See *Status Report*, Vol. 11, No. 4, March 3, 1976.) Even then, Anderson said, "hazardous conditions . . . continued to be recreated," both on that project and elsewhere in the state.

(Cont'd on page 4)

This case represents “only one example” of problems in professional ethics that “are apparent elsewhere in the highway field,” Anderson told his audience. Noting that engineers in government and industry are often exempt from state licensing requirements, he urged that all engineers whose work may affect the health, safety and welfare of the public should be licensed by the state. State licensing laws should require demonstration of a specific level of competence and acceptance of the duty to report to specified authorities any engineer’s professional action “that can adversely affect” the public welfare, Anderson said. The laws should protect those who report such actions; knowing failure to report violations “should be a basis for suspending or revoking” an engineer’s license, he argued.

The task of policing engineering ethics cannot be left to the professional engineering societies, Anderson said, because they “do not have the legal authority to enforce ethical standards or remove engineers from practice who have demonstrated their incompetence and neglect.”

Anderson concluded that “strong licensing laws with vigorous enforcement by a government entity can provide both ethical engineers and the public with a valuable tool to improve public safety.”

76's Largest

After 7 Years, Hundreds Of Fires, Finally A Recall

1976’s largest defect recall campaign, involving more than 800,000 General Motors vehicles with potentially defective carburetors that have caused vehicle fires, typified the accomplishments and failings of the National Highway Traffic Safety Administration’s defect program since it began in 1966.

The affected vehicles, 1965 and 1966 Chevrolets and 1966 Buicks, were recalled as a direct result of an NHTSA defect investigation. That investigation, however, took more than five years to complete and was followed by a two year court battle.

Since the passage of the National Traffic and Motor Vehicle Safety Act of 1966, auto makers have recalled or conducted defect notification campaigns for more than 52 million vehicles, approximately 3 million of them during last year alone. Although, according to agency records, NHTSA has only “influenced” auto makers to conduct approximately 14 percent of the 2,150 recall campaigns during the past 10 years, those “influenced” campaigns involved almost half of the total number of vehicles recalled. NHTSA estimates that two-thirds of all vehicles recalled during the past decade were recalled due to design defects, such as found in the GM carburetor, rather than quality control problems during production.

NHTSA’s investigation into carburetor hazards in GM vehicles originally began in September 1969, but it was not until December 1974, more than five years later, that the agency made a final determination that the carburetors were defective. NHTSA determined that a plug in the carburetor could become dislodged and spray gasoline onto the engine. The agency found that there had been at least 665 engine fires in the cars, many of which have been directly linked to the defective plug. GM continued to refuse to recall the vehicles until a federal court upheld NHTSA’s defect determination in July 1976. (See *Status Report*, Vol. 11, No. 14, Aug. 30, 1976.)

Late last year, the House Commerce Committee’s Subcommittee on Oversight and Investigations criticized NHTSA for allowing its defect program to go “into low gear.” The subcommittee noted that “the list of ‘current investigations’ contains open cases dating back to 1969 and 1970. Recently closed investigations have taken almost three times as long to complete (28.7 months) as cases closed in 1971 and 1972 (10 months).” (See *Status Report*, Vol. 11, No. 17, Nov. 2, 1976.)

National Transportation Safety Board Reorganized

In an attempt to move the National Transportation Safety Board "toward a more active role in accident prevention and a more forceful approach toward solving transportation safety problems," Chairman Webster B. Todd, Jr. recently announced reorganization of the board along functional, rather than modal lines.

The board's former bureaus of Aviation Safety and Surface Transportation Safety have been replaced by bureaus of Accident Investigation, Technology, and Plans and Programs. Additionally, some administrative functions have been centralized under a new Bureau of Administration.

The new Accident Investigation bureau, staffed by specialists in the five major transportation modes (aviation, highway, railroad, marine and pipeline), conducts all crash investigations, including the preparation of reports on probable causes and possible remedies. The board's 12 field offices (including a new office in Atlanta), formerly limited to aviation investigation, have been similarly reorganized to handle crash investigations in all modes.

The new Bureau of Technology will supplement the modal experts in the Accident Investigation bureau with specialists in such functional areas as human and vehicle factors, hazardous materials and operational elements. Additionally, this bureau will do research and carry out analytical studies and tests on various aspects of crash investigation and prevention.

The Bureau of Plans and Programs now handles the general oversight duties of the board, including analysis of proposed regulatory changes; follow-up on safety recommendations; evaluations of other agencies' safety programs; determination of crash investigation selectivity criteria, and preparation of transportation safety policies.

A large majority of NTSB's staff continues, however, to be aviation oriented. According to the board, 84 of the 137 people assigned to the Accident Investigation bureau are aviation specialists. Eventually, about 23 will be highway specialists; the remainder will be divided among the marine, railroad and pipeline modes. In the Bureau of Technology, roughly 85 percent of the 95 professionals are experts in some aspect of aviation. Four of the five newly-appointed directors and deputies of the three functional bureaus are aviation oriented; the fifth is both an automotive and aerospace engineer.

In 1975, 1,469 people died in air crashes; approximately 46,000 people died on the highway.

Correction To Spinal Cord Injury Book

Recently *Status Report* (Vol. 11, No. 20, Dec. 15, 1976) summarized an IHS-sponsored book, *The Costs of Motor Vehicle Related Spinal Cord Injuries*.

Some readers received early copies of the book which had a typographical error.

At the end of the last line on page 18, "10" should be changed to "70". The sentence should read: "Almost 70 percent of the motor vehicle related spinal injuries were to occupants, about 20 percent were to pedestrians, and 10 percent were to motorcyclists."

Knapp Chosen IIHS Board Chairman

George G. P. Knapp, senior vice president of Chubb & Son, Inc. has been elected chairman of the board of directors of the Insurance Institute for Highway Safety.

Other members are:

Martin Albaum, director of research, Prudential Property and Casualty Insurance Co.; T. Lawrence Jones, president, American Insurance Highway Safety Association; Henry Katz, senior vice president and general counsel, The Home Insurance Co.; G. L. Maatman, vice president and director of corporate planning and research, Kemper Insurance Companies; Arthur C. Mertz, president National Association of Independent Insurers Safety Association; Thomas C. Morrill, vice president, State Farm Mutual Automobile Insurance Co.; Donald E. Reutershan, president, Sentry Insurance Co.; John E. Riley, vice president, Safeco Insurance Companies; Donald Schaffer, vice president, secretary and general counsel, Allstate Insurance Co.; W. V. Siegfried, vice president, Nationwide Mutual Insurance Co.; Frank E. Walton, senior vice president, The Travelers Insurance Co.; Charles A. Weeber, vice president, United Services Automobile Association; Roger H. Wingate, senior vice president, Liberty Mutual Insurance Co.; Paul S. Wise, president, National Association of Automotive Mutual Insurance Companies.

Burn Deaths For Children Decrease

Childhood deaths from burning clothing dropped substantially between 1950 and 1974, according to a recent study. One important reason may be that young girls are now wearing pants more often and dresses less often, the study suggested.

Maryland researchers Stewart Young and Susan Baker studied U.S. childhood burn mortality data for 1950-74 as well as medical examiner records for Baltimore deaths during the period 1960-75. Between 1950 and 1974, burn death rates in the U.S. decreased by 47 percent for children.

The study, *Recent Trends in Childhood Burn Deaths*, evolved from a course on injury control, presented at the Johns Hopkins School of Hygiene and Public Health, and supported by the Insurance Institute for Highway Safety. The study was also supported in part by the Maryland Medical-Legal Foundation.

The decreases were greater for females than for males. For example, the death rates for white females aged 5 to 9 years dropped 55 percent between 1950 and 1974, while the corresponding male rate dropped 12 percent, the study said. Before the early 1960's, death rates were higher for girls than boys in the age groups 0-4 years and 5-9 years, but as a result of the greater decreases among girls "young males now have higher rates," according to the study.

The Baltimore data showed that "a major factor in the recent decline in childhood burn mortality . . . has been a reduction in burn deaths from clothing ignition," the study said.

The researchers cited the increased popularity of pants among girls as a major factor in the drop in the number of female deaths "since loose shirts, skirts, and dresses can come in contact with an ignition source more easily than tight fitting clothing." They measured the growth in popularity of pants for girls by the increased number of pants shown in mail order catalogs during the period.

Young and Baker examined other "countermeasures that could be associated with past or future reductions in clothing ignition deaths." Fabric changes may have reduced "the frequency and severity of clothing ignition;" a flammability standard for children's sleepwear, however, did not become effective until 1973.

Matches are the most common source of clothing ignition, the study found. Hazards associated with matches could be reduced by changes such as placing the striking surface on the back of matchbooks to prevent unintentional ignition of the entire book. The researchers pointed out that "human behavior, erroneously considered by many people to be the easiest factor to change, has consistently proved extremely hard to modify."

Reports Detail Australian Belt Experience

Safety belts have performed well and have reduced fatalities in Australia since their use was made mandatory in 1971, according to two recent Australian government studies. There were, however, some instances in which safety belts failed to perform as designed.

Seat Belt Crash Performance in Australia includes "statistics of belt wearing, abdominal injuries associated with belt wearing and head injuries sustained in spite of belt wearing." This report also notes that not "all Australian States have demonstrated a continuing high rate of compliance with laws requiring the wearing of seat belts."

In-depth Analysis of Fatalities to Wearers of Seat Belts contains reports on "vehicles, crash locations, post-mortem reports and police reports following deaths of 136 persons who wore seat belts during crashes. Most of these crashes were found to have occurred on fast roads, most were at or near roadway curves, and most involved collisions with objects such as poles and trees or collisions with a vehicle traveling in the opposite direction," according to the report.

Copies of the reports can be obtained from the Traffic Accident Research Unit, Department of Motor Transport, New South Wales, Australia.

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