

STATEMENT OF BRIAN O'NEILL
PRESIDENT, HIGHWAY LOSS DATA INSTITUTE
HEARING BEFORE THE U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND COMPETITIVENESS

AUTO REPAIR AND OTHER COSTS OF AUTO INSURANCE CLAIMS

JUNE 16, 1988

The Highway Loss Data Institute and its affiliate organization, the Insurance Institute for Highway Safety, are nonprofit research groups that identify, develop, and evaluate ways to reduce the losses from motor vehicle crashes. I'm president of both Institutes and, at this subcommittee's request, I'm submitting for the record information on the costs of automobile insurance claims.

By far the best way to control insurance losses and, hence, insurance costs is to reduce the deaths, injuries, and property damage that occur on our nation's highways. This involves effective programs to influence the human, vehicle, and environmental factors in crash and injury causation. It's a long-term process without any quick or easy answers. In the case of programs that make new vehicles safer, for example, the changes take 10 to 15 years to filter into the entire fleet of cars on our roads.

Although effective highway loss reduction programs can take a long time, the payoffs from them are significant. We've been applying the scientific approach for 20 years or so and, at least in part as a result, highway death rates on a per mile, per capita, and per registered vehicle basis are lower today than they were a decade ago. This means the human tragedy of crashes is being averted. It also means we're keeping down the direct costs of medical care for motor vehicle crash injuries, which already cost our society more than \$4 billion annually.

As expensive as crash injuries are, though, relatively minor collisions account for most of the direct costs of motor vehicle crashes. About 33

million cars are involved in crashes annually, with vehicle damage totaling more than \$27 billion every year.

The Highway Loss Data Institute publishes extensive information on the frequency and cost of injury and physical damage (including theft) losses for which insurance claims are filed. It is this information on which I'd like to focus today.

The Highway Loss Data Institute

The Highway Loss Data Institute (HLDI) collects and analyzes insurance data on the number and extent of losses -- theft as well as injury and collision, or vehicle damage -- associated with passenger vehicles. HLDI isn't in the business of insurance, nor does it publish information about insurance rates or premiums, but it does gather and publish detailed information about the injury, collision, and theft insurance losses of recent-model vehicles. Since its incorporation in 1972, HLDI has become the principal source of public information about insurance losses for specific motor vehicles.

To compute its findings, HLDI collects data on each insured vehicle, including information about the age of the insured driver, location where the vehicle is kept, and deductible amounts. Separate data is collected on each insured vehicle involved in a claim, including primarily information about the amount of the claim.

From all of this computerized coverage and claim data, HLDI computes specific loss statistics for individual car models. These statistics in-

clude claim frequencies, which are counts of insurance claims in relation to the number of vehicles insured, and figures indicating the costs of claims. These statistics, which are based on collision, no-fault injury, and comprehensive coverages (various liability coverages for property damage and human injury not included), are reported in annual model-by-model loss summaries as well as in special reports on the effects of specific trends and factors on overall insurance losses.

For example, HLDI reported a decade ago that the average frequency of collision coverage claims for all 1976 model cars was 10.1 per 100 insured vehicle years. For 1986 model cars, the corresponding figure was 10.4. Thus, we know from HLDI data that the frequency of insurance collision claims isn't changing appreciably. You can see this by the blue line on the chart to my right (Figure 1). Nor have crashes become more severe since the 1970s. If they had, we could expect that the frequency of claims for personal injuries would have increased, too, but it hasn't changed very much, as you can see by the green line on the same chart. The average frequency of insurance injury claims was 21.1 per 1,000 insured vehicle years in 1976 and 22.4 in 1986.

What has changed dramatically is the cost of insurance claims, the cost of repairing the damage to people and property from crashes. Average loss payments for vehicle repairs were almost three times as high in 1986 as they were a decade earlier, up from \$637 in 1976 to nearly \$1,800 in 1986, as you can see by the red line on the chart to my right (Figure 1). HLDI doesn't compute comparable averages for no-fault injury claims because the upper limits on payouts for injuries vary substantially from

state to state, making such computations difficult to interpret. However, we do know that medical costs, like vehicle repair costs, have risen dramatically since 1976. This cost escalation has had an obvious and crucial effect on the prices consumers pay for auto insurance.

Variations by Type of Car in Claim Frequencies and Costs

Insurance losses are affected by a number of factors, important among which are the vehicles themselves, particularly their size. Small cars consistently have more injury and collision claims than large cars. This has been true for every year that HLDI has published insurance claim information. Specialty models of all sizes, especially European luxury and semi-luxury cars, also have high collision losses. And, because these cars represent a growing share of the nation's new-car market, they have a larger overall effect on insurance losses than they did 10 years ago.

For example, among 1976 models, small cars represented only 20 percent of the insured cars in HLDI's data files. Sports and specialty cars represented 10 percent. By the 1986 model year, small cars had gained in popularity, representing 32 percent of the cars in HLDI's files. Sports and specialty models increased from 10 percent of the HLDI file in 1976 to 15 percent in 1986.

This national trend toward smaller cars and sports/specialty models is affecting insurance costs for motorists in some states more than others. California, for example, has a much greater proportion of insured small cars (44 percent of the fleet) than does the rest of the United States (32 percent). California also has more insured sports/specialty cars

than the rest of the country (22 percent in California; 15 percent for the rest of the country). These factors contribute greatly to the higher-than-average losses -- hence, more expensive insurance -- for many motorists in California compared to most of the rest of the United States.

Geographic Variations in Claim Frequencies and Costs

Another factor that determines insurance losses, besides vehicle size and type, is the location where the vehicle is often driven. Although very severe crashes -- those involving death or serious injury -- are more likely to occur in rural areas than in urban ones, the situation is reversed for less serious, run-of-the-mill crashes. These occur much more often in urban areas where traffic volumes are high. So insurance losses vary, depending on the degree of urbanization and, hence, the frequency of motor vehicle crashes.

As the population density increases, injury and collision claims increase, too. The chart to my right (Figure 2) shows insurance losses in relation to population density, as defined by the U.S. Department of Agriculture. What we can see from this chart is that collision claim frequencies rise along with increasing urbanization. When we factor in the costs of these claims, we see on the chart to my immediate left (Figure 3) higher collision payments per insured car per year as well as higher claim frequencies in urban, as opposed to rural, areas. Medical payment claims for personal injuries are also much more frequent in urban areas, as indicated by the chart on my far left (Figure 4).

These kinds of differences, together with the high losses associated with

certain car sizes and types, mean that owners of small sports cars who live in big cities, for example, are much more likely than owners of family station wagons in rural areas to be involved in insurance claims for injuries and vehicle damage. Such differences translate directly into higher consumer costs for insuring small sports cars in urban areas.

It isn't surprising, given HLDI's findings, that motorists in some states are feeling the effects of insurance costs more acutely than motorists in other states. For the nation as a whole, 16 percent of cars are located in the most rural areas, and 52 percent are in the most urban areas. But in California, to cite this state as an exception again, only 3 percent of all cars are located in the most rural areas, where insurance losses are relatively low. Nearly 85 percent of California's cars are located in the most urban areas.

In the chairman's home state of New Jersey, the split is about the same. Virtually none of the cars in New Jersey are located in rural areas, while 85 percent are in densely populated cities and suburbs. In fact, New Jersey and California, along with Maryland, are the most urban states in the HLDI file. On the other hand, more than 80 percent of all cars in South Dakota and Wyoming are located and driven mostly in rural areas.

Bumper Performance Drives Insurance Costs, Too

Many of the crashes that occur in urban areas are of the fender-bender variety. That is, they occur at very low speeds, about the equivalent of hitting a solid wall at 5 mph. Recognizing the huge costs associated with these kinds of collisions, the U.S. Department of Transportation

issued the first federal bumper requirements, beginning with 1973 model cars. The purpose of this and subsequent, stronger bumper standards was to reduce or eliminate the costly damage to passenger vehicles in low-speed collisions. By the 1980 model year, all new cars were required to withstand 5 mph front- and rear-into-barrier crash tests with no damage.

The consumer benefits of damage-resistant bumpers are clearcut, despite claims to the contrary by U.S. Department of Transportation officials. Fewer low-speed crashes cause damage of any sort. The costly and time-consuming chore of repairing cars after crashes is reduced. And, in large numbers of the crashes where damage still occurs, the costs of repairs are lower. Because so many crashes occur at low speeds, these benefits add up to huge savings of consumers' time, money, and aggravation.

Despite the benefits, though, federal regulators bowed to pressure from automakers and rolled back bumper requirements from 5 to 2.5 mph for 1983 and later model cars. In addition, the no-damage criteria were relaxed to permit unlimited damage to the bumper and attachments. The federal bumper standard is now so weak that it's little more than a sham.

But the result of weakening the standard has not been, as you might expect, uniformly weaker bumpers. It has been widely varying bumper performance levels. Because of pressure from insurers and consumers, some manufacturers today equip their cars with bumpers that meet the previous 5 mph requirements. But other manufacturers don't. Consumers can't tell by looking at cars whether they have strong or weak bumpers. The auto-

makers don't tell them. Neither do the dealers. And neither does the U.S. Department of Transportation, even though it promised to do so when bumper requirements were rolled back in 1983. So confusion reigns.

To illustrate the wide variations in bumper performance levels, the Insurance Institute for Highway Safety conducted a series of four 5 mph crash tests on 27 new 1988 cars, all small two-door models. The total damage in the four tests ranged from \$382 for Ford's Escort EXP to \$3,140 for Honda's Civic CRX. I'd like to show now some very brief videotape footage highlighting these and other differences in performance. The complete results are in the attached table.

Ford Escort EXP
5 Mph Front-Into-Angle-Barrier
Damage \$53

Ford Escort EXP
5 Mph Rear-Into-Pole
Damage \$319

Honda Civic CRX
5 Mph Front-Into-Angle-Barrier
Damage \$676

Honda Civic CRX
5 Mph Rear-Into-Pole
Damage \$1,366

Split screen
5 Mph Rear-Into-Pole
Mazda 323 Damage \$374
Mazda MX-6 DX Damage \$1,168

Bumper performance isn't the only determinant of a car's insurance loss experience. Far from it. Losses are influenced by vehicle size and body style, as we have seen, by where the vehicle is operated, by the age and

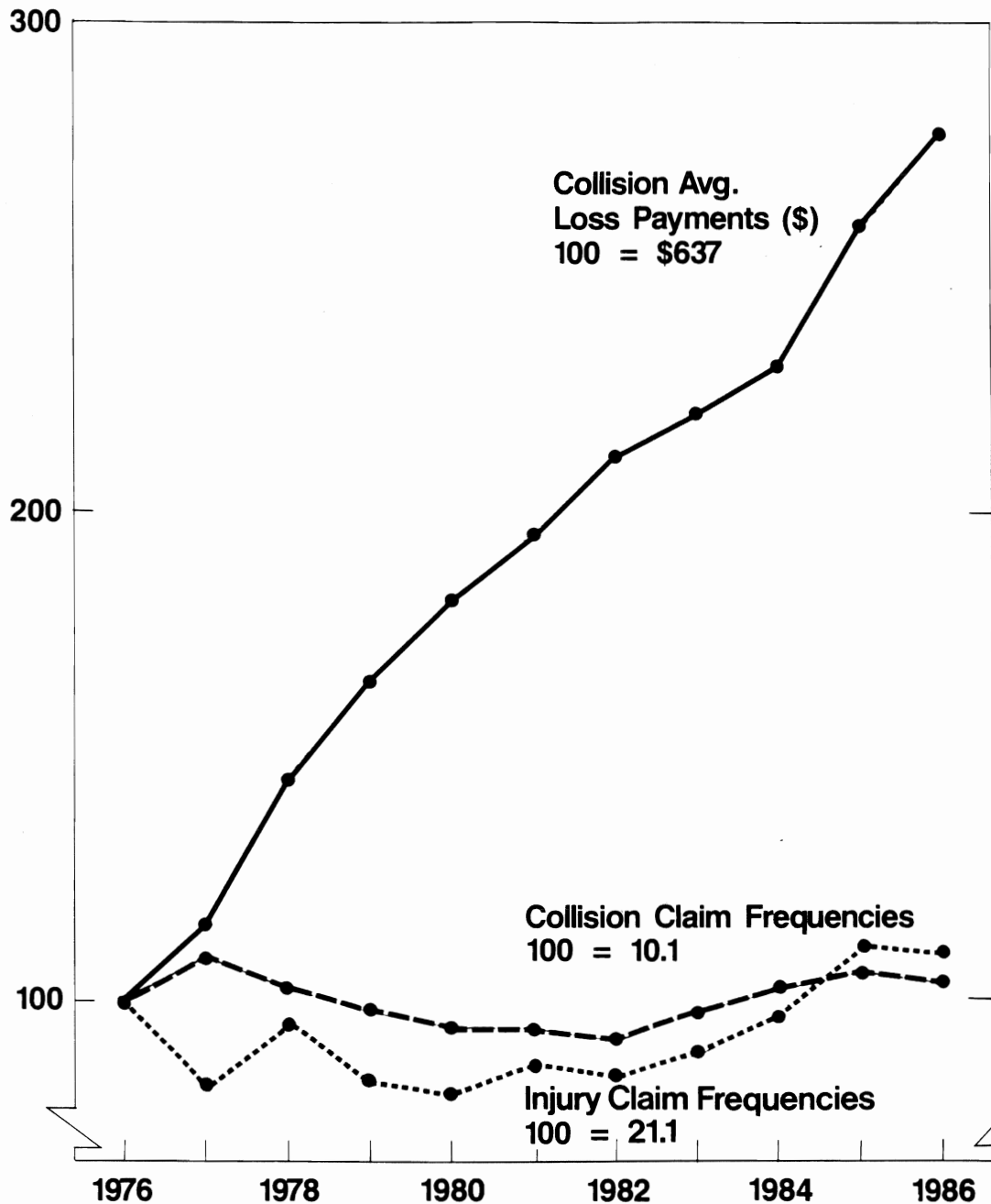
sex of the driver, and by a number of other factors, too. But HLDI research has shown that, when other factors are constant but the bumpers are weakened, insurance collision losses jump dramatically. When the bumpers are improved, collision losses decline. This means that insurance collision costs go up with flimsier bumpers, and they come down with stronger bumpers.

Conclusion

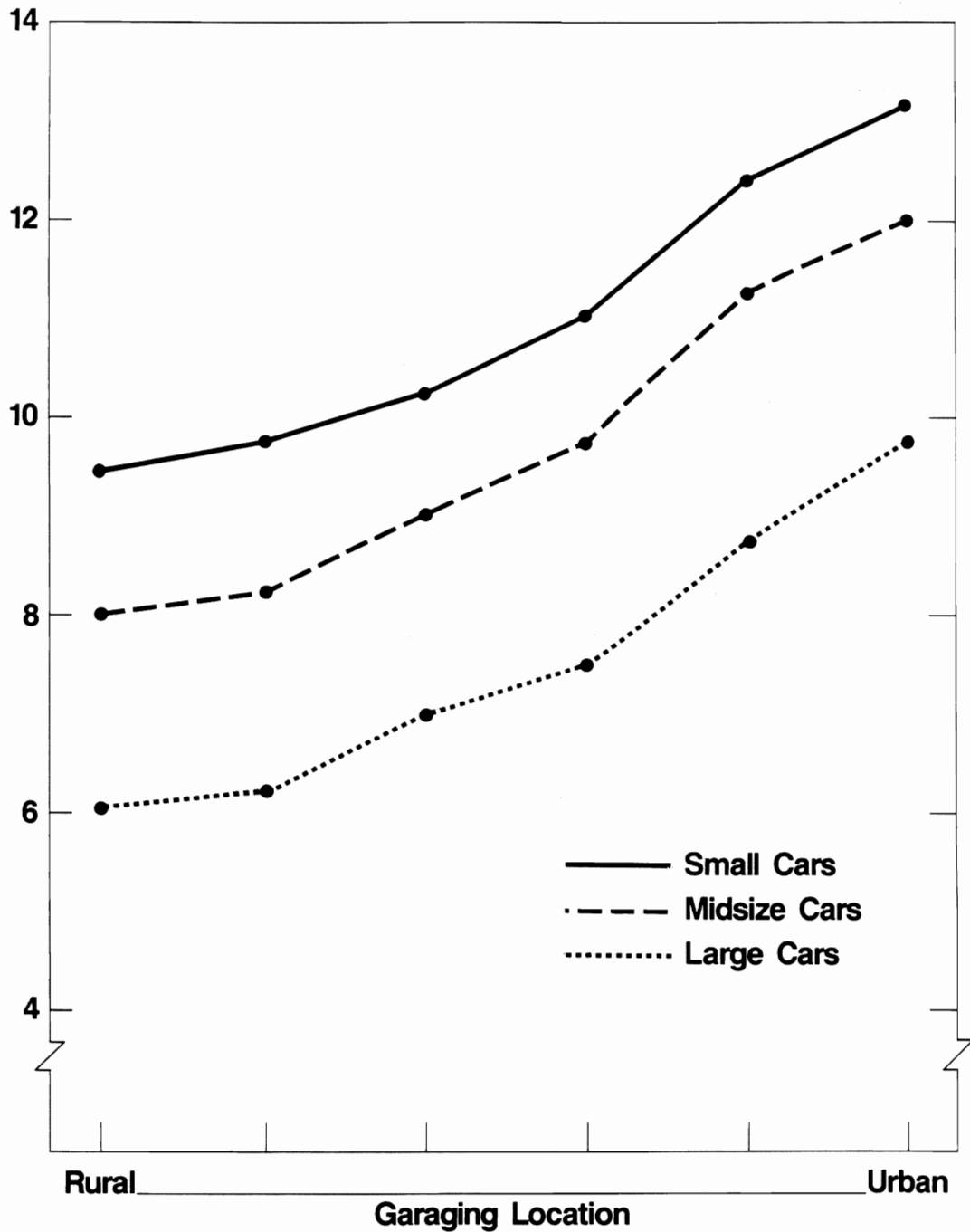
The fact is that, across the board, insurance losses drive the consumer costs of insurance. When the former go up, so do the latter. Insurance claim costs are increasing, largely because of the increasingly high price tags on medical care and vehicle repair.

Collision and no-fault injury claim frequencies haven't changed much in recent years. Neither has injury or vehicle damage severity. For this good news, we can thank long-term highway loss reduction programs. However, because of growing traffic volumes, especially in our cities, as well as the growing popularity of small cars and sports and luxury models, the prospect of continued stability in injury and collision claim frequencies isn't so bright.

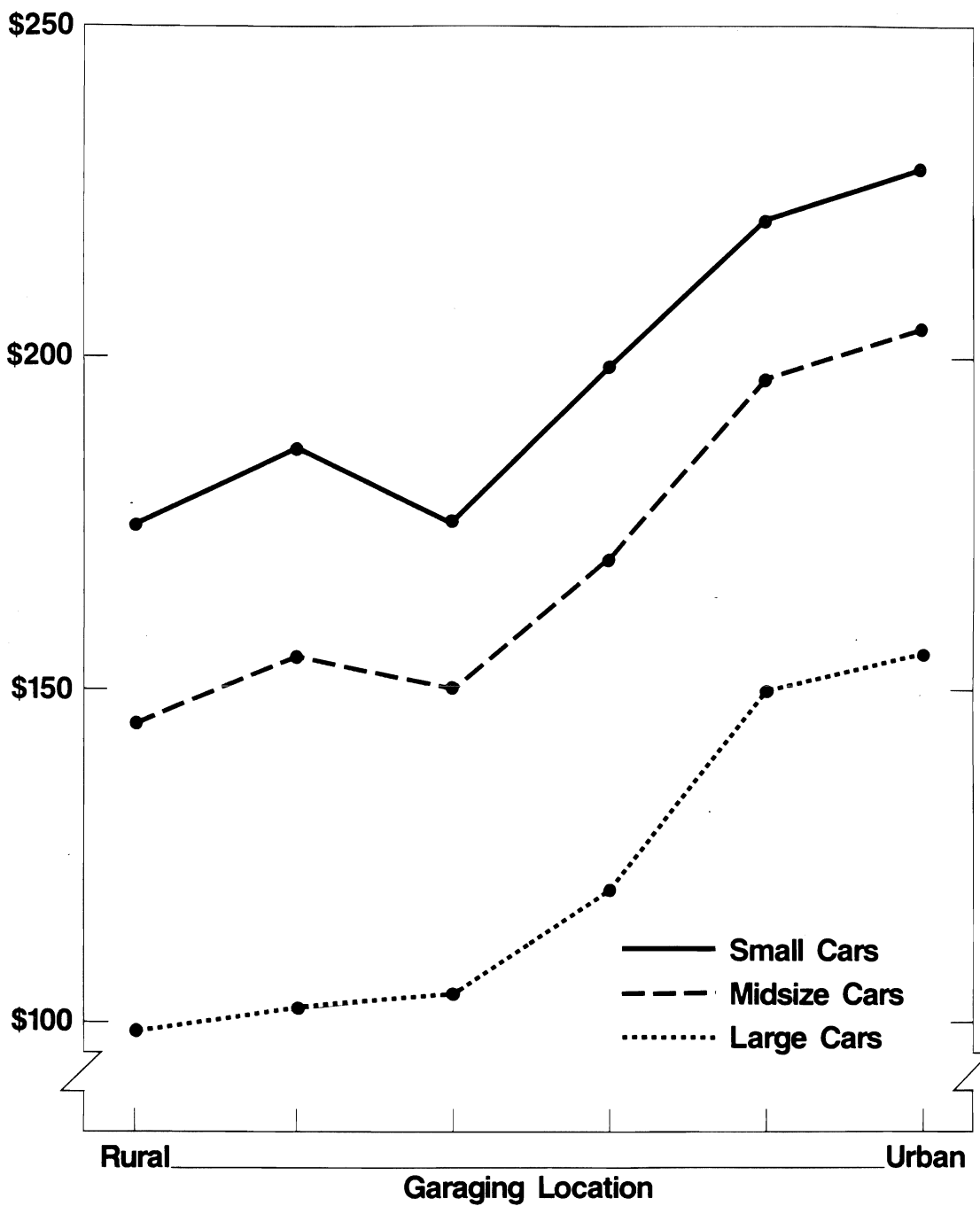
Relative Insurance Losses 1976-86 Model Years



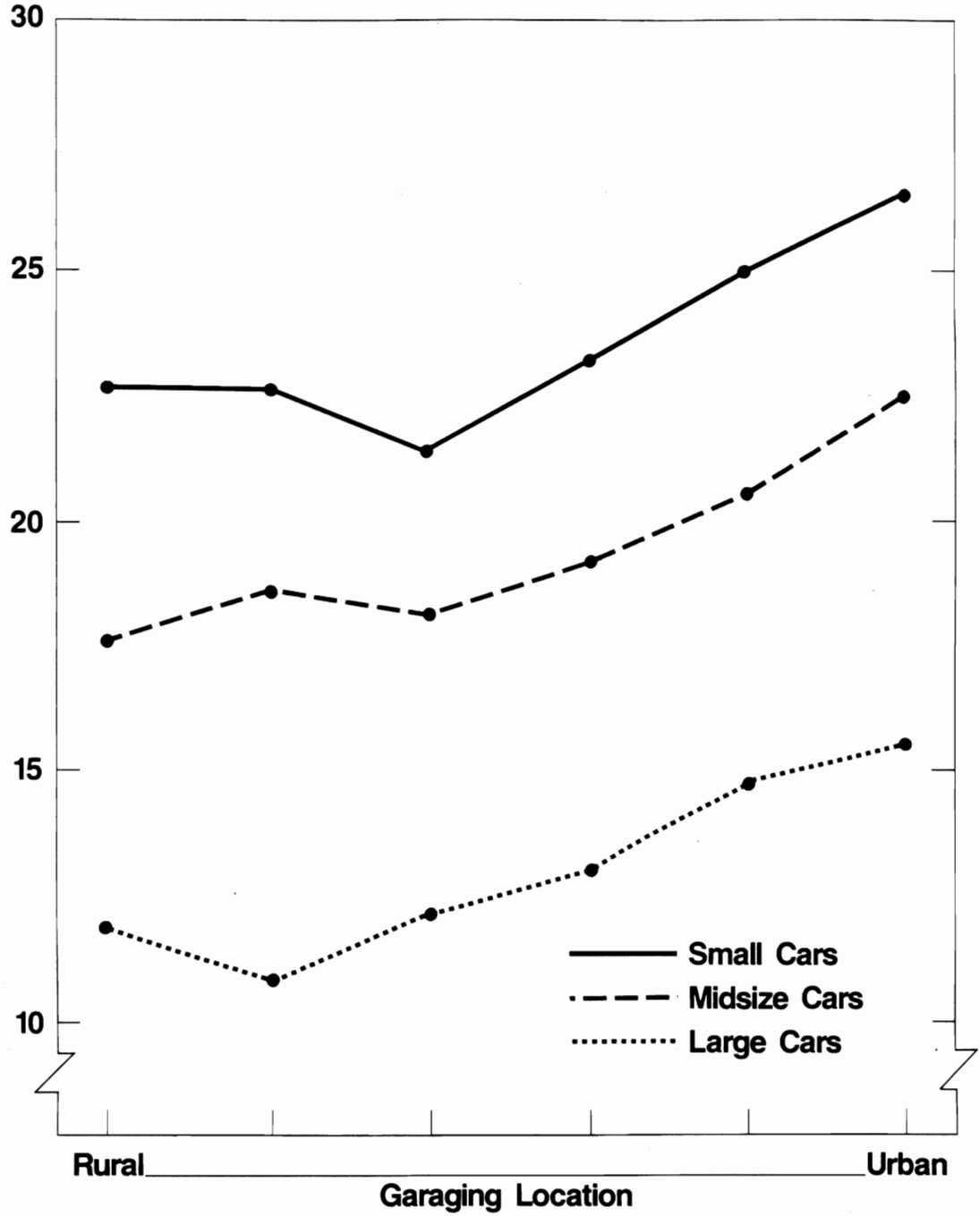
Collision Claim Frequencies 1985-87 Cars



Collision Coverage, Average Loss Payments Per Insured Vehicle Year 1985-87 Cars



Injury Claim Frequencies 1985-87 Cars



**DAMAGE REPAIR COSTS
LOW SPEED CRASH TESTS
1988 SMALL 2-DOOR CARS**

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

<u>Make and Model</u>	<u>Front into Barrier</u>	<u>Rear into Barrier</u>	<u>Front into Angle Barrier</u>	<u>Rear into Pole</u>	<u>Total Damage in All Tests</u>
Ford Escort EXP	\$ 0	\$ 10	\$ 53	\$ 319	\$ 382
Ford Escort Pony*	0	0	216	191	407
Chevrolet Spectrum	0	100	312	0	412
Toyota Corolla	0	0	227	214	441
Toyota Celica ST*	0	0	213	357	570
Toyota Corolla FX	0	0	234	479	713
Hyundai Excel GL	0	36	372	359	767
Toyota Tercel EZ	0	0	493	384	877
Mazda 323	0	0	504	374	878
Subaru DL 3-Door	0	0	411	518	929
Chevrolet Sprint	0	147	465	415	1,027
Subaru XT GL 2wd	0	39	605	466	1,110
Nissan Pulsar NX XE	44	167	558	421	1,190
Mitsubishi Cordia*	155	0	654	384	1,193
Dodge Daytona	327	524	246	192	1,289
Nissan Sentra E	0	0	447	871	1,318
Mazda MX-6 DX	0	29	205	1,168	1,402
Subaru Justy DL	154	113	579	589	1,435
Plymouth Sundance	86	131	614	622	1,453
Mercury Tracer	0	0	685	829	1,514
Volkswagen Golf	160	283	308	846	1,597
Acura Integra LS	83	0	766	808	1,657
Volkswagen Fox	118	548	315	724	1,705
Ford Festiva L Plus	328	132	657	635	1,752
Subaru GL Hatchback 2wd	0	0	646	1,154	1,800
Pontiac Fiero	0	138	659	1,138	1,935
Honda Civic	0	591	547	822	1,960
Volkswagen Jetta	220	395	571	780	1,966
Pontiac LeMans	277	45	777	1,022	2,121
Yugo GV*	312	537	863	1,044	2,756
Honda Civic CRX	176	922	676	1,366	3,140

* These 4 cars were tested in 1986. The designs of the corresponding 1988 models are virtually identical, so the 1986 results are relevant to new cars. Repair costs shown have been adjusted to reflect 1988 parts and labor prices.

Note: Repair costs listed for all 31 cars are rounded to the nearest dollar. Estimates were completed in January 1988 by two independent damage appraisers using ADP Collision Estimating Services with a labor rate of \$26 per hour. Criteria for bumper face bar damage were adapted from U.S. Department of Transportation Part 581 Bumper Standard in effect from 9/1/79 through 7/6/82.