

STATUS REPORT

INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

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Car Seat Anxiety

New federal rule will make it easier to install safety seats for children

You're starting to get tense. You've studied the instructions for the new child seat and now, after twisting your body like a pretzel to get the safety belt pulled tight, there's still too much slack. Your good intentions aren't

getting you anywhere, but you can't give up because your child's safety is at stake.

Installing child restraints correctly can be tough even for mechanically minded parents. Lots of different child seats are on the market, and there are even more car models. The attaching hardware isn't always compatible.

An even bigger problem is that many parents don't use child restraints at all. A long awaited regulation by the National Highway Traffic Safety Administration (NHTSA) will make installation easier and, by doing so, safety experts hope it will encourage more parents to properly secure their children when they ride in cars (see *Status Report*, Nov. 29, 1997; on the web at www.highwaysafety.org).

Specifics of the new rule: The regulation will standardize the way child seats are attached to vehicles. Instead of using adult safety belts to attach the seats, as is now the case, vehicles will come with rear seat anchors designed specifically for connecting child seats. In the form of 6 mm bars, the anchors will accommodate seats with flexible strap connectors as well as those with rigid metal connectors. Child safety seats also will be required to be compatible with the new vehicle anchors. Initially, most seats manufactured in the United States are likely to be systems with flexible straps.

"Parents won't have to struggle with vehicle safety belts and locking clips," Institute senior vice president Allan Williams explains. "Plus they'll be more likely to put children in rear seats, which are safer. But this rule won't do anything about the problem of parents who still think it's okay to let kids ride unrestrained."

NHTSA also is calling for a top tether strap designed to prevent head injuries by keeping a child's head from moving too far forward in a crash. The tether will attach to the top of the safety seat and to a special anchor on the vehicle.

The safety community applauds this new rule but cautions that it won't address the issue of nonuse, and it won't eliminate forms of misuse such as putting children in

the wrong types of seats for their ages or not harnessing them properly within their seats. And since the rule applies only to new vehicles, it will be 10 or 15 years before the millions of cars on the road today that lack the special anchors are replaced with models that have them.

Biggest problem is not using restraints: Child restraint use has increased markedly

heads are too close to airbag modules. Nationwide, 12 infants in rear-facing restraints have been killed by passenger airbags. So have another 3 babies in infant restraints held on the laps of adults. With or without airbags, infants and children are safer in rear seats.

A 1996 NHTSA study found that one of the most common forms of misuse con-



Vehicle safety belts that are too loose won't be a problem under the new federal rule ...

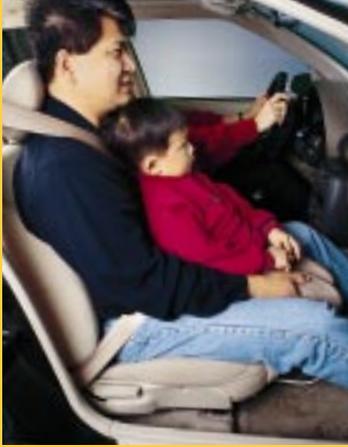
in the past 25 years, now standing at 85 percent for babies a year or younger. But as children grow, parents get less diligent about securing them. The restraint use rate for ages 1 to 4 drops to 60 percent.

Misuse is widespread. At its worst, this means not attaching the child seat to the vehicle or not fastening the harness, each equivalent to not using a restraint. Fortunately, such misuse doesn't occur very often. Failure to fasten the seat harness or buckle the seat to the vehicle occurs only 5 percent of the time, according to NHTSA.

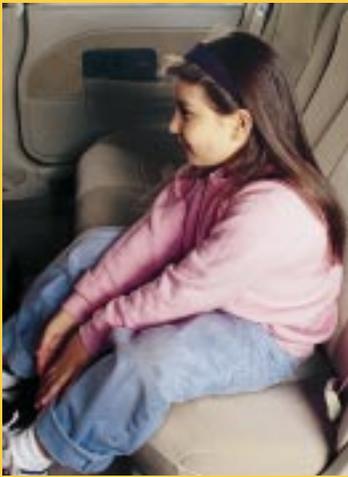
Putting kids in front seats with passenger airbags is another form of potentially lethal misuse. At particular risk are babies in rear-facing restraints, because their

cerns locking clips, devices required in some cars to keep the safety belt tight around the child seat. Clips are necessary only with some belt systems, but few people know which kind they have. "Parents either don't use the locking clip or install it where they can easily reach it instead of next to the buckle where it belongs," says Bob Wall, a traffic safety specialist with the Fairfax County, Virginia, police.

Safety experts also have seen parents threading harness straps into the wrong slots and moving children into adult safety belts too soon. "Belts are designed for adults. They don't offer optimum protection for small children," says Camilla Taft, of the National Safe Kids Campaign. "Chil-



... But the biggest problem will remain:



Too many children don't use restraints. They may ride on their parents' laps or simply not buckle up at all.

dren should stay in child and booster seats until safety belts fit them well. Badly fitting shoulder belts can cause kids to put the belts behind their backs, increasing the risk of head injuries in crashes.”

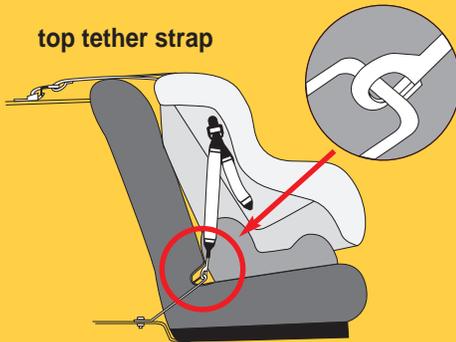
Consequences of misuse: While some mistakes aren't serious, the consequences of misuse can be severe. For example, a nine-month-old boy sitting in a forward-facing convertible seat was killed in a Centreville, Virginia, crash when the car in which he was riding struck another car making an improper left turn. According to police, the harness strap in the child seat was threaded in the wrong slots, and the locking clip was 13 inches from where it belonged. The child hit the steel frame of the front seat, crushing his skull in a tragedy that might have been prevented under the new federal rule.

It can be dangerous to position infants in the wrong direction. The American Academy of Pediatrics says babies who are younger than a year or weigh less than 20 pounds must ride in rear-facing restraints. Infants' bones are fragile and the muscles supporting their heads aren't fully developed. A rear-facing infant restraint can provide better support in frontal impacts, which are the most common kind of fatal crash.

“Some children reach 20 pounds long before their first birthday. But infants younger than a year, no matter how much they weigh, still aren't physically ready to face forward,” Williams says.

The good news is that even with all of the wrong choices parents can make, child seats still are effective. “In general children are better off improperly restrained than not restrained at all,” Williams says. Nearly 50 percent of the children ages 1 to 4 killed in passenger vehicle crashes last year weren't buckled up at all.

“We don't know how well the new rule will work to increase child restraint use and reduce deaths and injuries,” Williams concludes. “Unfortunately, it can't help if parents are indifferent. What it can do is make it easier for parents to properly attach any car seat to any new vehicle.”



New attachment alternatives:

Flexible attachment



Rigid attachment

Deaths go up on interstate highways where higher speed limits are posted

The higher speed limits introduced in 24 states during late 1995 and 1996 resulted in increased motor vehicle deaths during 1996-97.

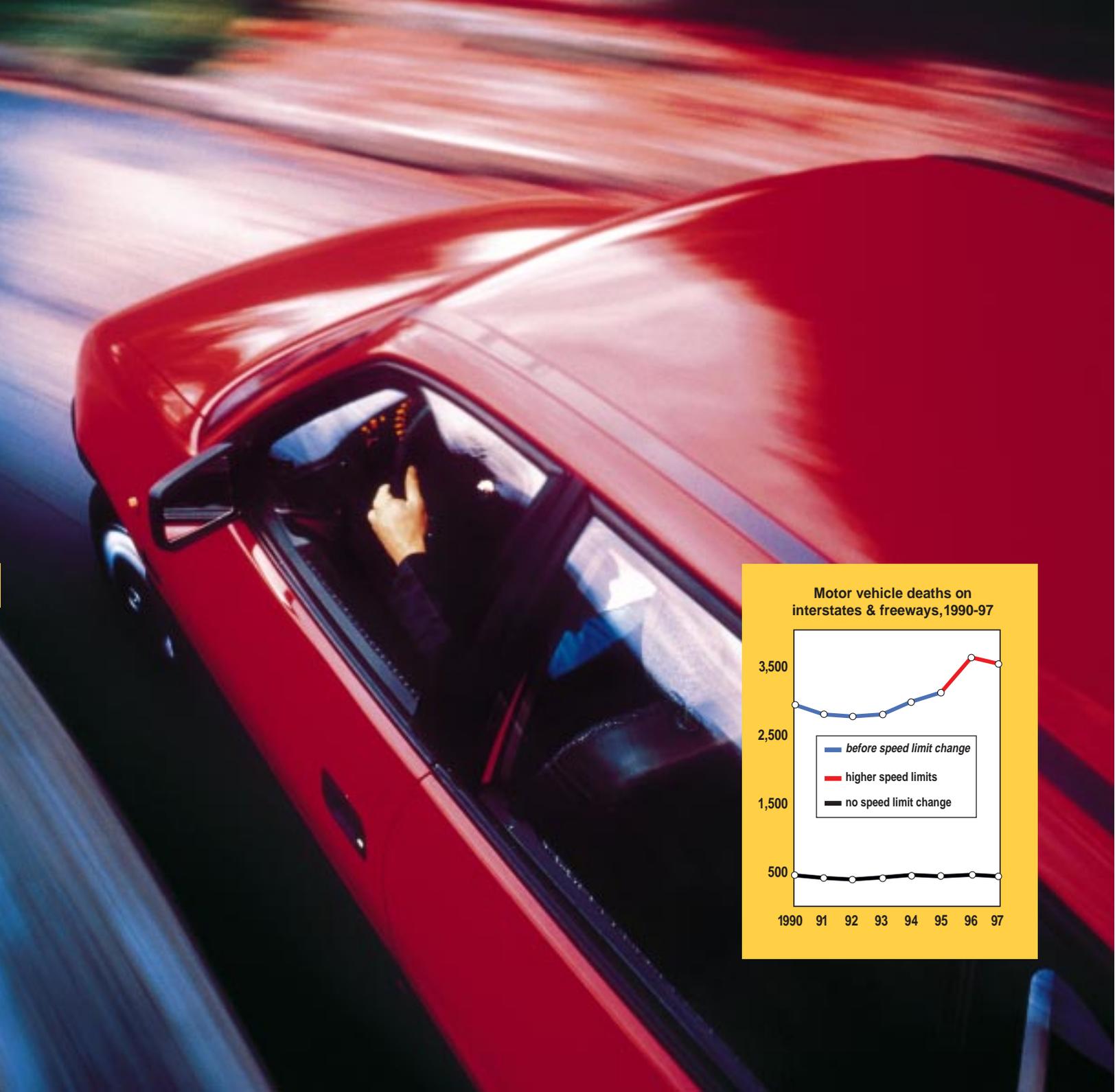
Insurance Institute for Highway Safety researchers compared the numbers of motor vehicle occupant deaths in these 24 states from the time speed limits were raised through 1997 with corresponding fatality counts for the same months in the six years before the speed limits were changed. As a control, researchers also analyzed deaths in seven states where speed limits weren't changed during the study period. To account for increases in miles traveled, analyses

then were conducted using fatality rates per vehicle mile instead of fatality counts.

Based on these studies, the Institute estimates an increase in deaths on interstates and freeways of about 15 percent. Meanwhile, deaths didn't increase at all on interstates and freeways in states where speed limits weren't raised. These findings expand earlier Institute research conducted in 12 states that raised speed limits beginning in December 1995 (see *Status Report*, Oct. 11, 1997; on the web at www.highwaysafety.org). The earlier study found a 12 percent increase in deaths on roads where speed limits were raised.

Speed limit changes in 24 states, December 1995–September 1996

	Date of	Rural interstate highways		Urban interstates/freeways	
		old limit (mph)	new limit (mph)	old limit (mph)	new limit (mph)
Alabama	May 9, 1996	65	70	55	70
Arizona	December 8, 1995	65	75	55	no change
Arkansas	August 19, 1996	65	70	55	no change
California	January 7, 1996	65	70	55	65
Colorado	June 24, 1996	65	75	55	65
Georgia	July 1, 1996	65	70	55	65
Idaho	May 1, 1996	65	75	55	65
Kansas	March 7, 1996	65	70	55	70
Michigan	August 1, 1996	65	70	55	65
Mississippi	February 29, 1996	65	70	55	70
Missouri	March 13, 1996	65	70	55	60
Montana	December 8, 1995	65	none	55	none
Nebraska	June 1, 1996	65	75	55	65
Nevada	December 8, 1995	65	75	55	65
New Mexico	May 15, 1996	65	75	55	no change
North Carolina	August 5, 1996	65	70	55	65
North Dakota	June 10, 1996	65	70	55	65
Oklahoma	December 15, 1995	65	70	55	60
	August 29, 1996	70	75	60	70
Rhode Island	May 12, 1996	55	65	55	no change
South Dakota	April 1, 1996	65	75	55	65
Texas	December 8, 1995	65	70	55	70
Utah	May 1, 1996	65	75	55	65
Washington	March 15, 1996	65	70	55	60
Wyoming	December 8, 1995	65	75	55	60
Speed limits weren't changed in the following 7 states:					
Connecticut		55	no change	55	no change
Kentucky		65	no change	55	no change
Maine		65	no change	55	no change
New Jersey		55	no change	55	no change
Oregon		65	no change	55	no change
Vermont		65	no change	55	no change
Virginia		65	no change	55	no change
The other 19 states were excluded because of too few freeway miles or because speed limit changes were restricted to selected interstate segments.					



Other Institute research indicates that travel speeds went up on roads in states that raised limits after Congress repealed the national maximum speed limit in late 1995. The 24 states the Institute studied raised speed limits on rural interstates, urban interstates, and freeways. Some states, including Texas, raised speed limits even on two-lane highways. Montana doesn't post any numeric speed limit for cars dur-

ing the day but, after a recent state court ruling, needs to get one on the books.

"It's clear from this study that the current round of speed limit increases, like increases on rural interstates in the 1980s, is costing hundreds of lives per year," Institute president Brian O'Neill says. "This cost could go up in the future because research shows actual speeds continue to rise in the years following a speed limit change."

Speeding reduces the time drivers have to avoid crashes. It increases the likelihood of crashing and the severity of the crashes that occur. "We know that when speed limits are raised," O'Neill says, "drivers who exceeded the old speed limits will exceed the higher limits, too, because people take note of the limits and then travel faster, at speeds at which they believe they won't get a ticket."

Black and Hispanic children and teens at high risk of dying in motor vehicle crashes

Findings of a new study could have major policy implications

Per mile traveled, black and Hispanic male teenagers are nearly twice as likely to die in a motor vehicle crash as male teenagers who are white. The risk of black children ages 5 to 12 dying in a crash per mile of travel is almost three times as great as that of white children. These findings, which are based on a new analysis of transportation and census data conducted by researchers at The Johns Hopkins Center for Injury Research and the Institute, could have a major influence on the

way policymakers think about safety belt use laws.

Until now, the high occupant death rates among black and Hispanic male teenagers and black children have been obscured because the rates haven't been adjusted for amount of travel. An adjustment is necessary because of differences in car ownership and amount of car travel among blacks and Hispanics.

Among children ages 5 to 12, occupant death rates per billion vehicle miles of

travel were 8 for Hispanics, 14 for blacks, and 5 for whites. Among teenagers 13 to 19, the rates were 45 for Hispanics, 34 for blacks, and 30 for whites. Male black and Hispanic teenagers had the highest death rates — 66 for black teens and 61 for Hispanic teens. These greater risks don't show up in population-based death rates.

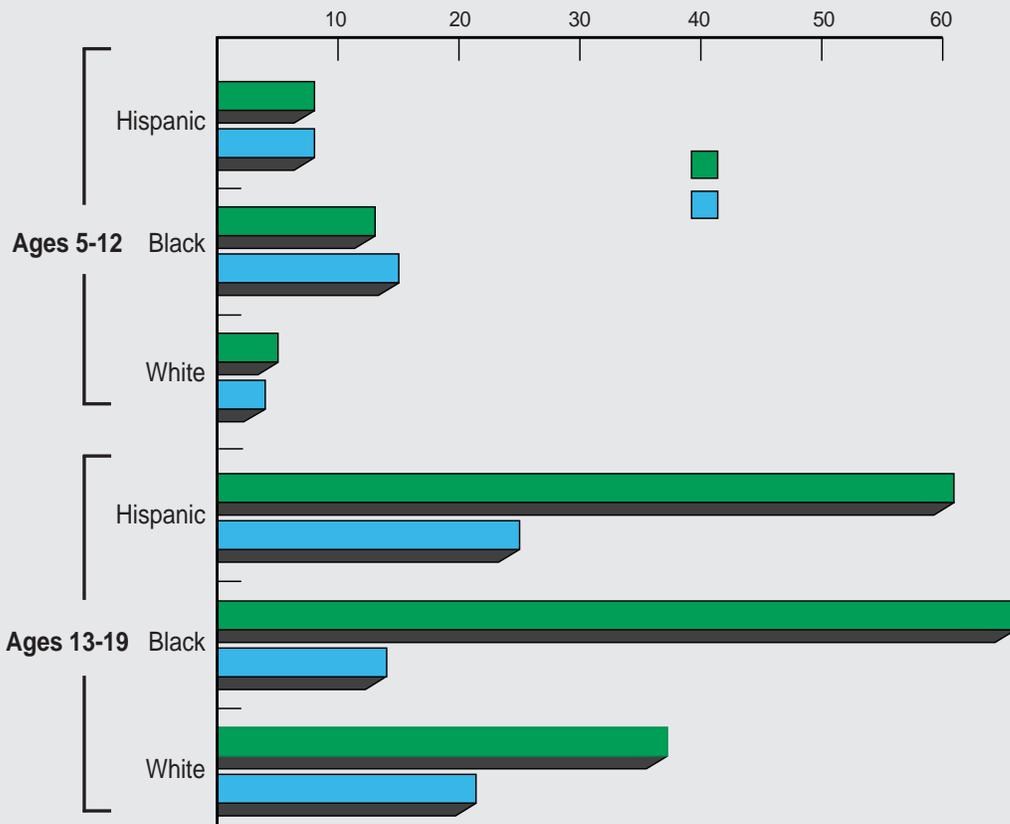
“Black and Hispanic male teenagers travel in passenger vehicles less often than their white male counterparts, but they face a very high risk of dying when they do travel,” says Professor Susan Baker of The Johns Hopkins School of Public Health. Researchers believe racial, ethnic, and gender differences in death rates can be explained, at least in part, by patterns of safety belt use. A number of studies have reported lower belt and child restraint use rates among Hispanic and black children and male teens compared with whites.

“Absolute numbers of deaths as well as death rates present an alarming picture for black and Hispanic male teens and black children,” says Institute senior researcher Elisa Braver. “We need to focus on ways to increase their use of safety belts and child seats.”

Tougher safety belt laws may be the best way to change behavior, but passing them has proved difficult. Only 14 states and the District of Columbia have laws that allow officers to stop vehicles solely for safety belt violations (primary laws).

The strongest opposition to tougher laws comes from people concerned about civil liberties, who believe it is up to individuals to decide whether to buckle up. Some in the black community are opposed out of concern that police officers could use the law as an excuse to harass minority drivers. Their opposition has impeded the passage of primary enforcement safety belt

Occupant deaths per billion vehicle miles by age, race/ethnicity, and gender United States, 1989-93



laws in the past, but the situation may be changing. After Louisiana passed such a law, similar percentages of whites and blacks reported getting tickets for not using their belts — 8 percent overall.

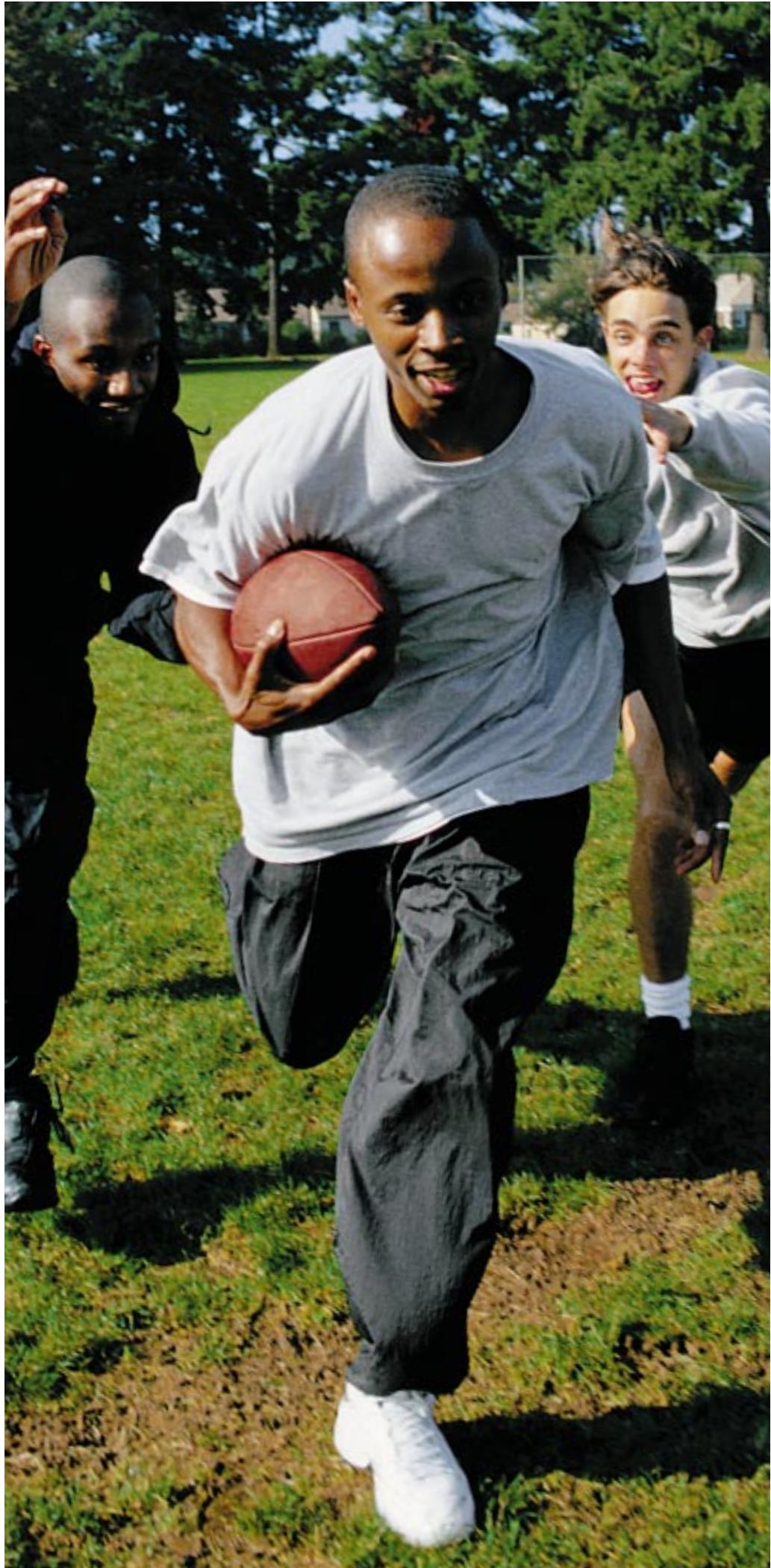
Since 1995, five states and the District of Columbia have passed primary safety belt laws, and in each jurisdiction black lawmakers played leading roles. In Indiana, the most recent state to enact the measure, 10 of the 13-member black caucus signed on. “African Americans have the most to gain from strengthening the belt laws,” says Rep. William Crawford, an African American who sponsored the legislation. “It’s less of a divisive issue when the facts are known.”

Maryland delegate Joanne Benson introduced legislation after hearing from

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emergency room doctors that large numbers of African American males dying in car crashes weren’t using their safety belts. “More can and should be done to stop harassment,” says Benson, a former educator. “But care should be taken,” she adds, “to avoid sacrificing a proven method of saving lives — of all races — in the process.”

For a copy of “Motor Vehicle Occupant Deaths among Hispanic and Black Children and Teenagers,” write Publications, Insurance Institute for Highway Safety, 1005 N. Glebe Rd., Arlington, VA 22201.



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