Cited as the largest single cause of lost work time and on-the-job fatalities for U.S. workers, motor vehicle crashes cause major nonrecoverable losses for U.S. businesses. Workplace programs to encourage employees to wear safety belts can thus help employers reduce traffic accident-related losses of work time and can substantially reduce the medical costs incurred when employees are involved in traffic accidents. Four methods have been effective in increasing safety belt use: laws, policies requiring usage, incentives, and education/information. A number of companies have been quite successful in combining education and incentives to increase safety belt use among their employees. The following factors have been especially important to program success: a strong and active commitment to increasing safety belt use on the part of management, a clearly defined and well-enforced policy of required safety belt use on the job, positive incentives for employee safety belt use, and an ongoing personalized safety education and training program for all employees that emphasizes the need for and benefits of using safety belts. Systematic recordkeeping of motor vehicle accidents in which safety belts were and were not in use, ongoing program promotions, and outreach efforts to encourage safety belt use among employees' families and friends have also been effective. (Fourteen examples of companies offering programs encouraging safety belt use, a discussion of resources for use in developing safety belt programs, a cost projections and savings worksheet, and a model safety belt use policy are included in this document.) (MN)
SAFETY BELT PROGRAMS
AT THE WORKPLACE

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# SAFETY BELT PROGRAMS AT THE WORKPLACE

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SAFETY BELT PROGRAMS AT THE WORKPLACE

As the largest single cause of lost work time and on-the-job fatalities for American workers, motor vehicle crashes cause major unrecoverable economic losses for U.S. businesses. Ford Motor Company estimated that for every 10 percent increase in safety belt use among employees each year, it could expect to save the lives of three employees, prevent injuries to 121 others, and save $3.75 million in medical insurance, disability claims, and retraining costs.

WHAT IS THE MAGNITUDE OF THE MOTOR VEHICLE TRAUMA PROBLEM?

The United States boasts the lowest motor vehicle fatality rate in the world (per 100 million miles of travel). It has declined steadily since 1945. Yet in 1985, approximately 43,800 people in the U.S. were killed in traffic crashes (National Highway Traffic Safety Administration [NHTSA], 1986a), almost half of them in the front seat of a passenger car (Dole, 1985). An additional 3.5 million were injured (NHTSA, 1986a). Motor vehicles cause 10 times more deaths and injuries than all other forms of transportation combined (Lawson, Sleet and Amoni, 1984).

One out of every 60 babies born today will die in a crash and most fatalities will occur in dry, sunny weather, at speeds under 40 miles an hour, within 25 miles of a person's home (American Hospital Association, 1985; NHTSA, 1984b).

It has been estimated that drivers make, on the average, 80 decisions—and one error—every two minutes while driving. It also has been calculated that a driver gets into a dangerous situation once every two hours and is close to an accident once per month (Andreasson, 1984). Although the probability of a motor vehicle collision on any single occasion of driving is very small, the probability over a lifetime of driving is virtually assured.
WHAT ARE THE HEALTH CONSEQUENCES OF NOT USING SAFETY BELTS WHILE TRAVELING?

In less than 60 years, motor vehicle travel has become a major public health problem (Sleet, 1984b; Institute of Medicine, 1985; Hartunian, Smart and Thompson, 1981).

- Over a lifetime of driving, each person, on the average, can expect to be involved in a crash every 10 years and stands a 33 percent chance that it will result in a disabling injury (Slovic, Fischhoff & Lichtenstein, 1978).
- As a group, those under 34 years of age are more likely to die in a motor vehicle crash than from cancer, heart disease, stroke or violence (Sleet, in press).
- The injury risk from motor vehicle crashes is equally impressive. About half of the head injuries requiring hospital care (350,000 annually) are caused by vehicle crashes. Of those, 1,960 persons will become totally disabled and unable to work.
- In addition, there are approximately 3,200 yearly cases of motor vehicle related spinal cord injury in the United States leading to paraplegia and quadriplegia. The disability caused by spinal cord injury has a profound effect on the victim's employment status. It is estimated that only 66 percent of incomplete paraplegics and 33 percent of quadriplegics are employed (American College of Preventive Medicine, 1986).

The importance of safety belts in protecting the health of employees is underscored in a statement made recently by J. Michael McGinnis, M.D., Deputy Assistant Secretary for Health and Director, Office of Disease Prevention and Health Promotion, U.S. Public Health Service (DHHS).
The single most prevalent behavioral risk for death in this country is not smoking, alcohol use, or obesity. It is the lack of safety belt use. It is a risk factor for 80 to 90 percent of Americans (McGinnis, 1984).

Recent risk factor surveys confirm this fact (Tolsma, 1984; Gentry, et al., 1985). Although vehicle travel is a significant health risk during a fraction of a person's life, nearly 80 percent of the occupants of passenger automobiles, light trucks, and vans traveled unrestrained in 1985 (Ziegler, 1986).

Motor vehicle trauma:

- Is the leading cause of death between ages five and 34.
- Ranks as the third leading cause of death for ages 35 to 44—behind only cancer and heart disease.
- Takes 40 years of life in a fatality, on the average. The average age of death from a motor vehicle crash is 34.
- Could be prevented or cut in half by using occupant protection devices.
WHY ARE MOTOR VEHICLE CRASHES IMPORTANT TO BUSINESSES?

Motor vehicle crashes were the leading cause of job related deaths in private industry between 1983 and 1984, according to the Bureau of Labor Statistics (Cotter, 1986). The causes of these work related deaths are shown in Table 1. It is notable that on-the-job highway vehicle fatalities accounted for 27 percent of work-related deaths, exceeding the next two leading causes of job related deaths combined--namely heart attacks and falls.

TABLE 1
Causes of Work-Related Deaths in Companies with 11 or More Employees, 1983 - 1984

<table>
<thead>
<tr>
<th>Causes</th>
<th>Percent of Work-Related Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway vehicles</td>
<td>27%</td>
</tr>
<tr>
<td>Heart attacks</td>
<td>12%</td>
</tr>
<tr>
<td>Falls</td>
<td>11%</td>
</tr>
<tr>
<td>Industrial vehicles or equipment</td>
<td>11%</td>
</tr>
<tr>
<td>Electrocutions</td>
<td>10%</td>
</tr>
<tr>
<td>Struck by objects other than vehicles or equipment</td>
<td>4%</td>
</tr>
<tr>
<td>Caught in, under, or between objects other than vehicles or equipment</td>
<td>4%</td>
</tr>
<tr>
<td>Explosions</td>
<td>4%</td>
</tr>
<tr>
<td>Assults</td>
<td>4%</td>
</tr>
<tr>
<td>Gas inhalations</td>
<td>3%</td>
</tr>
<tr>
<td>Plant machinery operations</td>
<td>2%</td>
</tr>
<tr>
<td>Fires</td>
<td>1%</td>
</tr>
<tr>
<td>All other</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Cotter (1986)
* Due to a rounding error, the total does not add up to 100%.
More than 36 percent of the 11,300 accidental work deaths in 1983--about 4,100--involved motor vehicles (Rosenfield, 1985). In 1984, 4,200 persons were killed and 200,000 sustained disabling injuries from on-the-job traffic collisions (National Safety Council, 1985). In the transportation and public utilities industry, over half of all on-the-job deaths are caused by motor vehicle trauma (Office of Technology Assessment, 1985). In addition, about 60 percent of the 32,900 workers killed in off-the-job accidents in 1983 (about 20,700) died in motor vehicle crashes (Rosenfield, 1985).

Lost Work Time

In addition to being America's leading cause of work-related deaths, traffic crashes also are the leading cause of lost work time (Baker, O'Neill, Karpf, 1985; Journal of American Insurance, 1982; Partyka, 1981).

- Forty-five million days of work are lost annually from motor vehicle crashes (NHTSA, 1986).
- Production time lost each year to traffic crashes totals 20 days per 100 employees; three of these days result from on-the-job crashes (Automobile Clubs of Southern California, 1986).
- Injury on the streets and highways caused about three times as many days of restricted activity and bed disability per incident as any other type of injury (National Center for Health Statistics, 1985b).
WHAT ARE THE ECONOMIC CONSEQUENCES OF NOT USING SAFETY BELTS?

Costs of Crashes

Employers pay a significant share of the $69.5 billion dollar cost of motor vehicle crashes.

- Employers pay as much as one-third of the cost of off-the-job motor vehicle trauma (NHTSA, 1984b; Rosenfield, 1985) or about $10 billion annually.
- Motor vehicle crashes cost $15.19 billion in lost productivity, 88 percent of which was attributed to losses from workforce activities and future foregone earnings (NHTSA, 1985; 1986b).
- Businesses also bear a large portion of the total $17.73 billion in insurance costs, $3.78 billion in medical costs, and $.71 billion in emergency costs related to motor vehicle crashes.
- American employers pay for 45 million days of work lost annually from motor vehicle crashes (NHTSA, 1986b).
- The cost of all crashes averages $308 for every man, woman and child in the U.S. (NHTSA, 1985).
- Total medical costs per critical injury average $138,000 (NHTSA, 1985).
- It is estimated that each motor vehicle death costs society over $330,000 in lost wages, medical costs, insurance expenses, and other related costs (NHTSA, 1985).

A summary of the societal cost of motor vehicle accidents by cost category and injury severity is presented in Table 2.


**TABLE 2**

Societal Cost of Motor Vehicle Accidents by Cost Category and Injury Severity, 1984

<table>
<thead>
<tr>
<th>By Cost Category</th>
<th>Billion</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Losses</td>
<td>$27.54</td>
<td>39.61</td>
</tr>
<tr>
<td>Insurance Expense</td>
<td>17.73</td>
<td>25.50</td>
</tr>
<tr>
<td>Productivity Losses</td>
<td>15.19</td>
<td>21.85</td>
</tr>
<tr>
<td>Legal and Court Costs</td>
<td>4.13</td>
<td>5.94</td>
</tr>
<tr>
<td>Medical Costs</td>
<td>3.78</td>
<td>5.44</td>
</tr>
<tr>
<td>Emergency Costs</td>
<td>0.71</td>
<td>1.02</td>
</tr>
<tr>
<td>Other</td>
<td>0.44</td>
<td>0.63</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$69.52</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By Injury Severity</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor (AIS 1)*</td>
<td>$ 8.58</td>
<td>12.3</td>
</tr>
<tr>
<td>Moderate (AIS 2)</td>
<td>2.21</td>
<td>3.2</td>
</tr>
<tr>
<td>Serious (AIS 3)</td>
<td>1.74</td>
<td>2.5</td>
</tr>
<tr>
<td>Severe (AIS 4)</td>
<td>1.06</td>
<td>1.5</td>
</tr>
<tr>
<td>Critical (AIS 5)</td>
<td>2.68</td>
<td>3.9</td>
</tr>
<tr>
<td>Fatal (AIS 6)</td>
<td>14.93</td>
<td>21.5</td>
</tr>
<tr>
<td>Property Damage Only</td>
<td>29.18</td>
<td>42.0</td>
</tr>
<tr>
<td>Uninvolved persons' costs</td>
<td>9.14</td>
<td>13.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>69.52</td>
<td>100.00</td>
</tr>
</tbody>
</table>


* The Abbreviated Injury Scale (AIS) is a coding system to establish the immediate threat to life soon after an injury. Injuries in categories 1-2-3 are not life threatening, whereas injuries in categories 4-5 are life-threatening. Injuries in category 6 are virtually unsurvivable (American Association for Automotive Medicine, 1985).
Costs Associated with Non-use of Safety Belts

In an effort to graphically illustrate the costs associated with non-use of seat belts, companies identified two accidents involving employees in which all major factors were parallel, except one driver wore a seat belt and one did not. In several instances, the use of belts reduced employer costs to zero, and in no case which belts were used did employer costs exceed $200 (Ware, Bigelow and Sleet, 1985; Sleet and Gobron, 1985).

Table 3 shows one such paired comparison of an unbelted female driver and a belted male driver. Both were involved in an on-the-job rollover accident under similar circumstances, both were in compact cars, and both were driving approximately the same speed. Injury and cost savings associated with belt use were dramatic. In almost every case, the use of safety belts reduced the severity of injury. Because of the relationship between injury severity and cost, employee safety belt usage means a significant savings to industry.
### TABLE 3
On-Job Rollover

<table>
<thead>
<tr>
<th>Safety Belt Off</th>
<th>Safety Belt On</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Driver:</strong> Female district sales agent</td>
<td><strong>Driver:</strong> Male engineer</td>
</tr>
<tr>
<td><strong>Vehicle:</strong> Compact car</td>
<td><strong>Vehicle:</strong> Compact car</td>
</tr>
<tr>
<td><strong>Accident:</strong> Driving 40-50 mph.</td>
<td><strong>Accident:</strong> Driving 45 mph.</td>
</tr>
<tr>
<td>Lost control of vehicle.</td>
<td>Lost control of vehicle.</td>
</tr>
<tr>
<td>Rolled down embankment.</td>
<td>Rolled down embankment.</td>
</tr>
<tr>
<td>Driver ejected.</td>
<td>No ejection.</td>
</tr>
<tr>
<td><strong>Time Off</strong> Work: Has not returned*</td>
<td><strong>Time Off</strong> Work: None</td>
</tr>
</tbody>
</table>

**Employer Costs:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical/Hospital</td>
<td>$27,669.75</td>
<td>Medical/Hospital $ 0</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>$ 877.92</td>
<td>Rehabilitation $ 0</td>
</tr>
<tr>
<td>Salary Continuation</td>
<td>$14,849.92</td>
<td>Salary Continuation $ 0</td>
</tr>
<tr>
<td>Indirect (Estimate)</td>
<td>$43,397.59</td>
<td>Indirect (Estimate) $ 0</td>
</tr>
<tr>
<td>Direct &amp; Indirect</td>
<td>$86,795.18</td>
<td>Direct &amp; Indirect $ 0</td>
</tr>
</tbody>
</table>

* It is projected that the employee will be permanently disabled and unable to perform her job again.

** Figures encompass a two-year period and all are 1980 dollars. Further costs are anticipated by the employer.
There also are hidden costs associated with traffic crashes—the unrealized human potential and the emotional, physical, financial, and social disruptions suffered by injured occupants and their families.

**Savings From Safety Belt Use**

On a national basis, each 10 percent increase in safety belt use saves about 1,500 lives, over 30,000 moderate to serious injuries, and about $800 million in direct costs. Recent studies show that unbelted motorists involved in auto accidents incur treatment costs that are more than twice as much as motorists who had worn belts, and unbelted crash victims are twice as likely to require hospital admission for injury treatment. The cost of treating belted patients averaged $419, while the cost for unbelted patients averaged $956 (Klett and Stein, 1986). These were costs for immediate care, and did not include follow-up care or costs of complications. One insurance study found that for serious injuries, on a per-case basis, the average medical payment was $208,400; the cost of institutional care was an additional $240,000 (Journal of American Insurance, 1980-81).

Savings to employers can be realized through reductions in employee health program costs, reductions in worker's compensation costs, and through additional production resulting from fewer man-hours lost to death and injury (Sheard, Kane and Dane, 1984). If seat belt usage is increased from 10 percent to 35 percent, these savings could add up to $1.7 billion annually, and to $4.1 billion annually if usage is increased to 70 percent, based on 1980 dollars (assuming belts are 65 percent effective in reducing death and injury) (See Table 4).
TABLE 4
Costs and Potential Savings to Employers from Increased Belt Usage (In 1980 Dollars)

<table>
<thead>
<tr>
<th>Costs Associated with</th>
<th>10% Usage</th>
<th>35% Usage</th>
<th>70% Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance claims costs</td>
<td>$5.9 billion</td>
<td>$1.0 billion</td>
<td>$2.4 billion</td>
</tr>
<tr>
<td>Lost production costs</td>
<td>$4.2 billion</td>
<td>.7 billion</td>
<td>1.7 billion</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$10.1 billion</td>
<td>$1.7 billion</td>
<td>$4.1 billion</td>
</tr>
</tbody>
</table>


In an analysis of the economic costs to the Commonwealth of Pennsylvania emphasizing the importance of safety belt use between 1979 and 1982, it was estimated that the Commonwealth could have saved $11,968,312 if the moderately injured or fatally injured state employees had been wearing safety belts (Landon, 1983). In addition:

- At least 10 employees would not have been killed.
- 741 employees would have experienced no injuries or reduced injury severity.
- More than 11 million dollars would have been saved in productivity losses, emergency costs, insurance expenses, medical costs, and administrative expenses related to excess injuries/fatalities.

These figures were calculated on 1980 dollars and assumed 50 percent reduction in fatality costs and 65 percent reduction in moderate to severe injury costs from seat belt use. A cost projection and savings worksheet to calculate individual company losses from crashes and savings from safety belts can be found in Appendix A.
Between 1977 and 1983, Ford Motor Company* analyzed their losses resulting from traffic crashes among employees and retirees. Their calculations revealed that for every one employee who died on the plant, 13 others were killed on the highway. An additional 13,700 employees incurred disabling injuries. These figures do not include dependents killed in motor vehicle crashes. At the same time, surveys revealed that only 3.6 percent of employees used safety belts. Based on these statistics, Ford estimated that for every 10 percent increase in safety belt use among employees each year, they could expect to save the lives of three employees and prevent injuries to 121 others. For each 10 percent increase, the company would save three-and-three-quarters million dollars annually in medical, insurance, disability, and replacement costs (Gray, 1985).

* Asterisks indicate members of the Washington Business Group on Health.
HOW EFFECTIVE ARE OCCUPANT PROTECTION DEVICES?

Federal regulations have required that every new car sold in the U.S. since 1966 be equipped with seat belts. Today, nearly all passenger cars on the road have lap/shoulder belts.

The value of safety belts has been realized for over 100 years. The first patent for leather straps to restrain motorists dates to 1885 (Transportation Research Board, 1984). Since that time, approximately two million persons have died and nearly 100 million have been injured from vehicular trauma (Office of Technology Assessment, 1979). Between 1984 and the year 2000, it is expected that at least six million more will die and 350 million will be injured worldwide (Andreasson, 1984).

The use of safety belts and child restraints is the one immediate protective measure that can be taken to reduce the risk of injury in a crash. There is virtually unanimous agreement that belts are effective in a crash. The effectiveness of lap and shoulder belts is estimated to be 40 to 50 percent—that is, a belted occupant is 40 to 50 percent less likely to be seriously injured or killed than an unbelted occupant, measured across the whole range of crashes that can produce serious injury or fatality (Hedlund, 1985; Highway Users Federation, 1985). Table 5 presents a summary of various types of restraints and their relative effectiveness.

18
<table>
<thead>
<tr>
<th>Type of Injury</th>
<th>Manual Lap &amp; Shoulder</th>
<th>Automatic</th>
<th>Airbags &amp; Lap Shoulder</th>
<th>Airbags &amp; Lap Shoulders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal</td>
<td>30-40%</td>
<td>40-50%</td>
<td>35-50%</td>
<td>40-50%</td>
</tr>
<tr>
<td>Moderate-Critical</td>
<td>25-35%</td>
<td>45-55%</td>
<td>40-55%</td>
<td>25-45%</td>
</tr>
<tr>
<td>Minor*</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

* Lack of data on minor injuries preclude more precise estimates.


About half of the fatalities to occupants of passenger vehicles, light trucks, and vans, and almost half of the moderate to critical injuries, could be prevented or minimized if occupants wore safety belts (NHTSA, 1984a). Properly used, child safety seats decrease the chance of injury and fatality from 60 to 80 percent (Shertz, 1981). Effectiveness drops to 48 percent when child restraints are improperly used (Hall, et al., 1984). Lap/shoulder belts, even when used with small children in the absence of child safety seats, provide some protection from injury in a crash (Kahane, 1986; Partyka, 1983).

Safety belts help occupants in six ways:

1. There is "ride down" benefit, in which the belt begins to stop the wearer as the car is stopping.
2. The belt keeps the head and face of the wearer from striking objects like the wheel rim, windshield, interior post, or dashboard.

3. The belt spreads the stopping force widely across the strong parts of the body.

4. Belts prevent vehicle occupants from colliding with each other.

5. Belts help the driver to maintain vehicle control, thus decreasing the possibility of an additional collision.

6. Belts keep occupants from being ejected out of the car.
HOW MANY PEOPLE CURRENTLY USE SAFETY BELTS?

Seat belts could save employee lives and company money, but they aren't being consistently used.

- Provisional estimates from a 1985 survey of 8,350 households found 30 percent of the adults reported wearing a safety belt "all or most of the time" (National Center for Health Statistics, 1985c).
- A related Harris survey, conducted in 1984, found only 27 percent of adults reported wearing safety belts "all the time" (Prevention Research Center, 1985).

Safety belt use can be determined through direct observation at the roadside or in parking lots, through self-report, and by investigation at the site of a crash. Direct observation reduces the most reliable estimate of safety belt use, but reported belt use, by the employee or family member, can often provide additional data. While self-report over-represents actual use (usually by double), reported use nevertheless is significantly related to actual use (Mayas et al., 1983; Waller and Barry, 1969). This makes reported use at least a good surrogate measure in studies relating safety belt use to other health variables.

Observed adult safety belt use has increased from 10.9 percent in 1980 to 34.2 percent during the first six months of 1986 when measured in traffic in 19 cities throughout the U.S. (Goryl, 1986). If the eight cities where safety belt use laws were in effect are excluded from the survey results, usage in the remaining cities was 23 percent. Children 0 to 4 years were found to be buckled in safety seats 68.4 percent of the time. Using these results, approximately 66 percent of adults and 32 percent of children 0 to 4 years are at high risk for motor vehicle trauma in a crash.
WHAT APPROACHES TO INCREASING SAFETY BELT USE AT THE WORKSITE HAVE BEEN EFFECTIVE?

In general, four methods of increasing safety belt use have been used effectively: 1) laws; 2) policies requiring usage; 3) incentives; 4) education/information. Various results have been achieved from each approach, depending on exposure rates, message quality, delivery mechanism, supporting factors, enforcement tactics, and reward contingencies. Evidence, however, supports the more comprehensive, multiple intervention approach for maximizing effectiveness. In addition, based on both research and the experiences of companies, a series of recommendations have emerged that will help ensure a successful program.

How Laws Affect Usage

Since 1984, twenty-seven states in the U.S. and the District of Columbia have passed mandatory safety belt use laws. State laws enhance the opportunity for businesses to protect their employees (Moloney, Shepard and Donway, 1986). Employers can benefit from laws by reminding employees of their obligation and providing information on the importance of the law. Employers may wish to stress the following:

- In 25 countries studied, there was an average of 25 percent reduction in fatalities and injuries after implementation of usage laws.
- Overall safety belt use increases 200 to 300 percent following legislation (Organization for Economic Cooperation and Development, 1985), but use declines over time with lack of enforcement.
- U.S. Federal regulations require truck and bus drivers engaged in interstate transportation to wear safety belts.
- 25 state and most federal agencies require belt use by government employees traveling on official business.
Employees that are knowledgable about the law and the reasons for it are more likely to abide by it.

How Policies Affect Usage

Safety belt use policies--usually requiring use of safety belts by anyone riding in a company vehicle or using a personal vehicle on company business--have been adopted and used successfully in many corporate settings. Among those with aggressive policies are DuPont Corporation, Berg Electronics, Dow Chemical, Northwestern Bell, United Parcel Service, branches of the Armed Services, and some state agencies. In corporate settings where safety belt use policies have been enforced, 60 to 90 percent use has been reported (Nichols, 1982). The most successful policies are accompanied by education and incentives. Following are some suggestions that have proven useful to companies when establishing a safety belt policy:

- Promote safety belt use as a critical element of job performance.
- Demonstrate top management's support by issuing a company directive.
- Consider staging sanctions: first offense, verbal warning; second offense, written reprimand; third offense, suspension, etc.
- Include provisions requiring dependents and passengers to use belts when the employee is on official business.
- Publicize policy directive frequently in company newsletters, check stuffers, in vehicles, and during employee orientation sessions.

A sample safety belt use policy statement appears in Appendix B.
How Incentives Affect Usage

Research shows that incentive and reward programs increase safety belt use (Geller, 1984; Sleet, 1984a). Incentive programs have been very successful in corporate settings and have resulted in rapid, but not always sustained, increases in usage. Use rates from 40 to 70 percent have resulted from effectively conducted incentive programs (Geller, 1982). Incentive programs should be accompanied by education and use requirements so employees continue using belts after incentives are discontinued.

Many types of incentive approaches are used in business, including: (a) immediately rewarding users upon observation with money or prizes; (b) rewarding users with a raffle or lottery ticket for a future drawing; (c) awarding prizes to everyone in a defined group (such as all delivery-truck drivers) that achieves a group target use rate; (d) award lottery tickets to everyone when group target rates for the entire organization are achieved.

Sleet and Geller (in press) offer some conclusions based on the research to date:

- Incentive (reward) strategies are more desirable and acceptable than disincentive (punishment) strategies.
- Participants should be rewarded according to actual observed use. Pledges to wear belts can also be rewarded, although the effect is less reliable.
- Incentive programs offering safety belt users opportunities to win inexpensive prizes, awards, special privileges and recognition usually result in a cost-effective increase in safety belt use.
- Hourly (blue-collar) employees are more difficult to motivate with incentives than salaried (white-collar) employees.
- Incentive programs should not start or stop abruptly. They should be preceded by education and followed by a maintenance "booster" program.
Family involvement in an incentive program (e.g. by sending prize catalogues home with employees) can lead to higher safety belt use.

Programs that include a safety belt education component along with the incentive phases achieve better results than either method used alone.

The use of incentives is an underutilized technology in company programs. In a sample of 748 companies surveyed, only 17 reported having some type of incentive program to encourage safety belt use (Richardson and Race, 1984).

How Education Affects Usage

Public information refers to messages conveyed to large numbers via mass media (radio, television, etc.). Such efforts cannot, in themselves, effect change in safety belt use but are essential elements in supporting decisions to buckle up. Education refers to active face-to-face efforts to change safety belt knowledge, skills, attitudes, and behaviors, as well as passive efforts such as brochures, posters, video tapes, and targeted instructional material. Educational programs in the worksite include lectures, demonstrations, group interaction, films, and printed matter designed and used to encourage change.

Well constructed educational material targeting knowledge and motivational deficits, skills, values, and used in a manner which fosters individual growth can be a powerful medium for changing safety belt use behavior. They, too, benefit with supporting programmatic elements such as policies and incentives. Following are some suggestions that have proven useful to companies providing education about seat belt use.

- Provide up-to-date, attractively designed materials to employees and distribute them frequently.
Do not rely on education alone; use it as a supporting feature.

Educate supervisors and managers about safety belts; their support is essential for change within employee ranks.

Involve the retirees and dependents in efforts to educate employees.

**How Combinations of Approaches Affect Usage**

Some of the corporations that have succeeded in increasing safety belt use by combining methods are:

-- The Alcoa* Technical Center, Pittsburgh, increased safety belt usage among employees from 43 percent to 92 percent through a program involving education and incentives.

-- Johnson and Johnson* Products Company, New Brunswick, through a comprehensive education program, "saved by the belt" club promotion, an incentive program, increased their employees' uses of belts from 20 percent to 50 percent during an 18-month period.

-- The DuPont Company* in Florence, South Carolina, established a comprehensive program for employees, families, and the community. At the end of the first month, the employee usage rate was 84 percent, up from 31 percent before the program started.

-- The Southwestern Bell Telephone Company's campaign used television personalities to educate employees and town residents, demonstrated the effectiveness of safety belts by letting employees ride in a "convincer," (a collision-impact simulation device), and offered safety belt related insurance coverage to employees paying $10,000 to the beneficiary or estate of employees fatally injured while wearing a safety belt.
PPG Industries*, Pittsburgh, included the families of employees in all efforts to educate them about safety belts and child restraints. The program included articles in company newspapers, video presentations, promotional material received at home, and incentives of a free child safety seat to PPG employees or dependents who give birth.

Factors Influencing Success of Worksite Safety Belt Programs

From both controlled research and analysis of existing employee safety belt programs, a set of factors has emerged that appears to influence the success of worksite safety belt programs.

Major factors include:

- A strong and active commitment to increasing safety belt use on the part of management.
- A clearly defined and well enforced policy of required safety belt use on the job.
- Positive incentives for employee safety belt use.
- An on-going, personalized safety education and training program for all employees that emphasizes the need and benefits of safety belt use.

Supporting factors include:

- Systematic recordkeeping of motor vehicle accidents that includes the use or non-use of safety belts.
- On-going program promotions within the company.
- An outreach effort to spread the safety belt message beyond the workplace—to the family and to influence off-the-job driving.
o A procedure for measuring progress toward increased use: periodic safety belt use observations, communication and feedback on use rates, and evaluation of costs and benefits of the program.

There are no definitive data on the cost-effectiveness of various methods of increasing safety belt use at work (Ware, Sleet and Bigelow, 1986). However, anecdotal findings at Control Data Corporation and other companies support the notion that safety belt promotion can offer a favorable return-on-investment (Merrill & Sleet, 1984; Jose and Anderson, 1986). Many companies are realizing, as research suggests, (Benson and Rund, 1983; Sleet, 1984c, 1985) that promoting safety belt use as a preventive health behavior and in the context of a company's health promotion effort (Ware, Cook and Orme, 1983) may be the most effective delivery mechanism.

**Summary of Potential Benefits from a Worksite Safety Belt Program**

o Reduced work fatalities.
o Reduced health insurance, disability and administrative costs.
o Reduced on-the-job injuries.
o Reduced absenteeism, disability days, sick leave, and turnover.
o Increased productivity.
o Increased worker health and quality of life.
o Increased satisfaction with management's interest in employee welfare.
o Reduced health care costs to workers who have deductibles, co-payments, or co-insurance.
COMPANY EXAMPLES: WORKSITE SAFETY BELT PROGRAMS

Allstate Insurance Company, Northbrook, IL
Eugene Klomps, Director, Corporate Relations
(312) 291-5849

Allstate Insurance Company is offering free child safety seats to its employees. The employee can keep the seat until the child is nine months old or weighs 20 pounds. Allstate then encourages the employee to purchase a toddler seat.

The program was started for two reasons: to keep the employee's child from being injured or killed in an accident, and to encourage employees to think about motor vehicle safety and the importance of using child safety seats correctly.

In addition to child safety seats, Allstate has a mandatory seat belt use policy for all employees on company business. This policy is extended to personal use as well if an employee drives a company car. Large signs are posted at the exits of all Illinois facilities with the logo "Allstate Buckles Up."

American Hospital Association, Chicago, IL
Monica Reilly
(312) 280-6647

The American Hospital Association (AHA) uses small, but visible incentives to promote safety belt and child restraint use among employees.

- Employees who attend an education program on child safety seats receive a raffle ticket for a child seat.

- An informational campaign to encourage use of safety belts was conducted with prizes distributed to those who were observed buckled up. Road maps, key rings, pens and paper pads with the motto "Living is a Cinch" were offered as prizes. Safety belt use rose from 30 percent to 80 percent during the campaign. (Illinois also passed a mandatory safety belt use law during the campaign.)
DuPont Connector Systems, New Cumberland, PA
Ken Spoonhour, Safety Director
(717) 938-6711

DuPont Connector Systems, a DuPont subsidiary in Pennsylvania, had for many years successfully implemented an education and policy oriented safety belt program for off-the-job driving. Education involved encouraging seat belt use away from work, where the majority of accidents occurred. The current policy states seat belt use is mandatory for all on-job driving. In 1980, an incentive program was announced. Small prizes (car wax, key chains, etc.) were randomly distributed to belt wearers at the plant entrance. Larger prizes (gifts worth $12 - $15) became available to all employees if the usage rate in private vehicles entering and leaving the plant reached and held at 90 percent for two months in a row. The goal was reached after three months. The program cost $24,000 to implement and produced a savings in injury and lost work time of over $45,000. Since 1980, the program has been sustained with less expensive and less frequent incentives at an annual cost of about $10,000. Two years later, belt use was still above 90 percent.

E. I. DuPont*, Waynesboro, VA
Dave McDaniel, Safety Supervisor
(703) 949-2351

Efforts to reduce the number of lost work days due to off-the-job crashes resulted in a safety belt incentive program for workers at the Waynesboro plant. Prior to the program, observation surveys of safety belt use among employees driving to work was conducted two days a week. Belt use was calculated at 25 percent. As part of the observation procedure, each tenth car in which passengers were wearing belts received "snacks" as rewards.

Further incentives were tied to safety belt use and reduced accident rates off-the-job for the entire plant. If, for two months, no employee was involved in an accident that resulted in lost work time, each employee received a gift catalogue and could select a gift with an average value of $16. During this period, safety belt use rose to 90 percent.

In the third phase, selection from the catalogue was dependent on a three-month average use rate of 90 percent, arriving and departing from the plant. Again the employees won.

Gift incentives were discontinued, but snack incentives remained in the fourth phase. The average seat belt usage remained at 88 percent.

* Asterisks indicate members of the Washington Business Group on Health
Results during a three-year period before and after the campaign revealed:

<table>
<thead>
<tr>
<th></th>
<th>Before Campaign</th>
<th>After Campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% belt use</td>
<td>14 off-the-job motor vehicle injuries</td>
<td>90% belt use w/gift incentive</td>
</tr>
<tr>
<td>14 off-the-job motor vehicle injuries</td>
<td>7 off-the-job motor vehicle injuries</td>
<td>88% belt use w/snack incentive</td>
</tr>
<tr>
<td>394 work days lost</td>
<td>51 work days lost</td>
<td></td>
</tr>
</tbody>
</table>

In 1984, the Waynesboro plant, with 2,100 employees, experienced only one accident and one work day lost. Similar programs are being conducted at other DuPont plants.

Exxon Company*, USA, Baton Rouge, LA
Bruce Martin, Safety Department
(504) 359-8623

Exxon engineers, administrators, production workers, and plant maintenance staff are reminded of the refinery safety belt use policy in the company safety handbook during new employee orientation and at company gates. During special meetings, employees are exposed to a short lecture on the value and effectiveness of safety belts, a 17-minute videotape of employee testimonials, interviews with doctors and police, and test crash footage. Each employee receives a pamphlet, bumper sticker and coffee mug with a safety belt slogan on it. A safety belt "convincer" (sled test) is used to reinforce the impact of even low speed crashes.

In one program over a two-day period, all employees wearing safety belts were given small trinkets on entering or exiting company gates. During the incentive phase, safety belt use doubled from 23 percent to 49 percent. Four months after the program and following the distribution of rewards, belt use was 39.6 percent. The program cost approximately $3,000 for promotional materials and rewards (approximately $1.13 per employee). At last count, 80 percent of employees entering the gate from outside were wearing belts.

Testimonial - Ms. D., an employee at the Exxon refinery, and her four-month old child were hit from behind by a Toyota traveling at 45 mph. The child was properly restrained in an approved child safety seat and the employee was using her lap/shoulder belt. Neither was injured and the employee did not lose even one day of work. Ms. D. reported that she hadn't been in the habit of buckling up before she was exposed to the company safety belt program. She now wears a belt all of the time. She also insists that all occupants wear belts while traveling with her.
According to Ms. D., "Thanks to the refinery's seat belt promotional program, I still have my son two months later and both of us are healthy."

Ford Motor Company*, Dearborn, MI
Dale Gray, Corporate Safety Director
(313) 322-0212

Ford Motor Company's World headquarters complex was one of more than 100 employee belt programs conducted by Ford in 1984. The format used to educate the employee (and family) on the value of wearing safety belts and uses small incentives to reward observed use. Before the program began, Ford employees had observed use rates of 14.3 percent. The objectives of the program were to:

- Raise safety belt use rate above baseline.
- Encourage employees to educate their families on the importance of safety belt use.

Employee bulletins were used to communicate about the incentive and awareness program. A safety belt use policy also was initiated. The program was planned so that awareness components were completed early, with incentives introduced throughout the program. Numerous education sessions were held at each location during the year. Over 100,000 employees and their families were exposed to the education on safety belts.

- In most programs, employees were encouraged to sign a pledge card promising to wear safety belt for a specified period of time, and bring it to the first meeting.
- Upon entering the session, employees were given a small incentive such as a key chain.
- Top management kicked off each session and extended support for the program.
- Sessions included appearances by race car drivers and other professionals interested in automobile safety and the value of safety belts.
- The Ford film "Safety Belts and You" was shown, followed by discussion.

Employees were encouraged to reach a group goal of 50 percent use or to double the wearing rate at each location facility, building on that increase to further raise usage rates. Incentives such as mugs, pens, baseball caps, etc. were given when wearing rates met the location objective. In one location (facility):

- Use rates reached 58 percent in one week.
In all, 4,200 mugs were given away to employees pledging to use safety belts.

One week after distribution of prizes, observed use rates were 63.1 percent.

Between the first drawing and four months later, jingle contests, drawing for baseball tickets, crashed car displays, gift certificate drawings and other promotional events took place, each time raising safety belt use higher. During the last week of the program, the use survey showed 77 percent of employees wearing safety belts.

Wearing rates for the corporation one year later were 62 percent.

GEICO, Washington, DC
Kathi Rowzie
(301) 986-2993

GEICO offers employees a safety belt and child safety seat education program. In addition, GEICO has a loaner program for child safety seats for up to nine months. The "Safe Rider Program" offers all employees and policy holders a $60 child seat for $20. This can later be returned for a refund.

General Motors Corporation*, Warren, MI
Terry D. Horne
(313) 492-1080

General Motors Technical Center instituted a safety belt program for 6000 engineers, technical staff, safety personnel, etc. The "Seat Belt Sweepstakes" program was promoted through newsletters, bulletins, and in dining halls. In order to enter the contest, the employee had to complete a pledge card promising to wear a safety belt for 12 months. In order for a drawing to be held, use rates for the plant had to reach a predetermined level during various stages of a five-month period.

Eighty-four percent of employees signed and entered the contest. Prior to the contest, safety belt use was 36 percent. The first drawing was held one month after the program began with a GM sub-compact car as the grand prize and smaller prizes such as radios, watches, and certificates.

Phase I. Goal for the first drawing was 50 percent usage to/from plant. Employees reached 60 percent.

Phase II. Goal for the second drawing was 65 percent safety belt usage. Observed employee use reached 66 percent.
Phase III. Goal for the third drawing was 70 percent usage. Employees attained over 70 percent use.

Employees received daily feedback on progress toward their goal. Following the formal program, a maintenance program began, with occasional reminders and prizes. Observations continued at the entrance and exit to the plant. The following summer, a cash sweepstakes program was initiated when use rates declined to 60 percent. Periodic monitoring of belt use continued throughout the year. During the following six months, safety belt use was never less than 57 percent. Periodic prize drawings raised levels to 65 percent. Usage levels have remained about 60 percent, even without a state law in effect.

Nalco Chemical Company, Naperville, IL
Wayne E. Scheimann, Corporate Safety Manager
(312) 961-9500 Ext. 1282

Employee safety belt use is encouraged and enforced by all levels of management. The company seat belt program begins with a mandatory safety belt use policy for all employees on company business. This program also includes education, rewards, and recognition, targeting seat belt use by employees both on and off the job.

New employee orientation stresses the company's belt use policy, and use of the instructional film "Room to Live." Dashboard stickers on company cars remind drivers and passengers to buckle up. Driver performance checks reinforce the requirement to use belts.

Where an employee driving a company car (on or off company business) or on company time, is involved in a crash, an accident report is filed. This report is reviewed jointly by the employee and supervisor. Consistent non-compliance with the safety belt policy can lead to the loss of company car privileges.

All fleet drivers are required to participate in an education program, which includes the Safe Driver Training program including a major section on safety belts. Special safety belt awareness programs are conducted periodically for employees and their families that include films and handouts on both safety belt and child restraint use. A lending library housed in the corporate headquarters makes audio-visual materials available to branch offices.

Recognizing employees with rewards for demonstrated compliance with safety belt use policies is another component of the program. "Survivor Stories" are published in company newsletters and magazines. To date, there have been two reported cases of
employees surviving a serious crash because safety belts were worn. Other rewards include prizes at parking gates and at company picnics to wearers of safety belts and to employee and family members who pledge to use belts.

Ortho Pharmaceutical Corporation, Raritan, New Jersey
Samuel P. Epstein, Manager, Safety and Benefits
(201) 218-6000

The use of safety belts both on and off the job is routinely encouraged with on-the-job policies and off-the-job reminders. Inter-office mailings, bulletin boards, parking lot signs, and articles in company newspapers all reinforce the safety belt message. Management's philosophy is that short but frequent educational opportunities are more effective than one-shot programs. Translated to programs, this includes frequent meetings, special training classes, safety belt "convincer" demonstrations, new employee orientations, and awareness sessions.

The film "Room to Live" is shown to employees and their families. The driving fleet has implemented a "saved by the belt" club for employees who escaped injury due to safety belts. Stories are solicited and printed in company newsletters. Survivors are awarded lapel pins and testimonials by survivors are videotaped and shown to field sales personnel. Since the program began, there have been no reports of serious injury from motor vehicle crashes.

Employees were encouraged to "pledge" to wear safety belts. The program has been incorporated into the parent company's (Johnson & Johnson*) "Live for Life" health promotion effort. Safety belt use among employees has increased from 20 percent to 40 percent since the program began.

Schlumberger Offshore Services, New Orleans, LA
Tony Accardo, Unit Safety Manager
(504) 524-4642

Schlumberger began promoting safety belt use in 1982 with a program which included education, promotion, recognition, and discipline. The company felt usage of safety belts by employees was not acceptable. The company educated employees and their families with facts about safety belt use, films such as "Room to Live," and employee-family-management get-togethers where the issue was reinforced with handouts and home-made video tapes with local survivor stories.

Five safety belt "convincers" (portable sleds that demonstrate the impact of a sudden stop) were purchased to give employees and their families an experience with a simulated crash with a safety belt correctly in place. The promotion of dashboard decals as
reminders, convincer hardhat survival stickers, T-shirts, buckle up signs in parking lots and lapel pins with safety belt messages were integrated into the overall program.

A cash rebate program, "WE CARE," was initiated to pay each employee up to $10.00 for purchasing an approved child safety seat. An employee completing an accident-free year receives a safety award and hardhat sticker from the company. The top award is the president's award, going to field locations completing 150,000 accident-free hours of driving. A survivor's club comprised of members who have survived a crash on or off the job because they were wearing their safety belt has fifteen members.

Policy requires safety belts used by each passenger in a company vehicle, including children (safety seat). Decals are mounted on the dash and headrests of every company car. An employee involved in an accident and not wearing a safety belt is subject to immediate termination.

Since initiating its safety belt program, the company has logged over 15,000,000 vehicle miles without a disabling injury. The company attributed most of this result to increased safety belt use. The company received a large insurance adjustment for the 1982-1983 policy year.

Toyota Motor Sales, U.S.A., Torrance, CA
Rick Norton, Product Engineer
(213) 618-4813

Child safety seats are provided to all employees who are new parents. Safety belt education and a safety belt use policy for employees is promoted. All occupants of all company owned vehicles (leased or rented) must wear safety belts. Reflector license plate frames with the motto, "Think Safety - Buckle-Up" are on all cars. Seat belt posters are part of an educational campaign that is promoted throughout the building.

Virginia Polytechnic Police Department, Blacksburg, VA
E. Scott Geller, Psychologist
(703) 961-6223

The Virginia Polytechnic Police Department initiated a "Seat Belt Sweepstakes" program on campus. This was an incentive-based safety belt program for the faculty, staff, and students of Virginia Tech. The officers were instructed to observe each driver wearing a safety belt on campus and record the license number of the car as an entry for a prize drawing. Each of three consecutive weeks per quarter, ten winning license plate numbers were randomly drawn and these winners chose prizes valued from $20 to $500 (donated by local merchants).
During the first six months of the school year, $2,000 worth of prizes were awarded to 60 drivers who were "caught" buckling up. As a result of the program, safety belt use on campus increased 52 percent, from 16 percent to 25 percent during the contest. Six months after the last intervention was administered, use rates remained at around 25 percent. An important ingredient for success of this program was that it was delivered by persons from within the school environment and sponsored by local merchants familiar to students and faculty.

Westlake Community Hospital, Melrose Park, IL
Betsy K. Andrian
(312) 681-3000

Westlake Community Hospital operates a health plan for employees with incentive plans that can earn employees money as well as contribute to good health. Employees receive an annual health appraisal which includes a health risk appraisal with information and assessment of risk from non-use of safety belts.

- Employees receive a bonus of $50 for completing the appraisal and attending a feedback session on the results.

- At the time of the appraisal, employees can qualify for an additional cash bonus of $25 if they always use safety belts while traveling.

- If an employee is injured in an automobile collision and is using a seat belt at the time of the accident, 100 percent of any emergency care is paid for (no deductible, no co-payment).
RESOURCES: WORKSITE SAFETY BELT PROGRAMS

Organizations

Worksite health promotion and safety directors may want to contact the following individuals and organizations to initiate cooperative safety belt/child safety seat activities for employees and their families. Public and private sector associations and organizations concerned with safety belt and child safety seat promotion are listed. Many of these organizations provide catalogues and other public information materials on occupant protection that would be suitable for use by management or employee populations. All of the organizations have printed materials and some have audiovisual kits, films, slide/tape programs, training materials, and other presentational materials appropriate to the worksite. For coordination with state programs of occupant protection, employers can contact their State Office of Highway (Traffic) Safety, Governor's Office, or Regional Office of the National Highway Traffic Safety Administration, U.S. Department of Transportation.

American Academy of Pediatrics
141 Northwest Point Boulevard.
Elk Grove Village, IL 60007
Ms. Virginia Kucera
(312) 228-5005
1-(800)-433-9016

Conducts child passenger safety education activity.

American Association of Retired Persons
1909 K Street, NW
Washington, D.C. 20049
Steve Stiles
(202) 662-4863

Slide program on safety belts for retirees and dependents.

* This list of organizations, audio visual material, and print material was compiled by Dr. Sleet. Inclusion does not necessarily imply review and endorsement by the Washington Business Group on Health.
American Automobile Association
8111 Gatehouse Road
Falls Church, VA 22047
Francis C. Kenel
(703) 222-6621

American College of Preventive Medicine
1015 15th Street, N.W.
Suite 403
Washington, D.C. 20005
(202) 789-0003

American Nurses Association
2420 Pershing Road
Kansas City, MO 64108
Frances C. Righi
(816) 474-5720

American Red Cross
17th & D Streets, NW
Washington, D.C. 20005
Donna Feeley
(202) 639-3086

Insurance Institute for Highway Safety
Watergate 600
600 New Hampshire Avenue, NW
Washington, D.C. 20037
Carline Hughes
(202) 333-0770

International Association of Chiefs of Police
13 Firstfield Road, SW
Gaithersburg, MD 20878
(301) 948-0922

Motor Vehicle Manufacturers Association
1620 Eye Street, NW, Ste. 1000
Washington, D.C. 20006
Niles Lofgren
(202) 862-3900

National Automobile Dealers Association
8400 W. Park Drive
McLean, VA 22102
(703) 821-7000

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Encourages employees of affiliated clubs and members to buckle up. Certifies instructors to administer the driving improvement program at the worksite.

Provides continuing medical education courses on the prevention of motor vehicle trauma to medical personnel in worksite settings.

Provides educational material on passenger safety to nurses in occupational health settings.


Distributes films, newsletters, brochures, research briefs, on all aspects of occupant protection.

Distributes model speeches, press releases, safety belt program materials and safety belt law enforcement programs.

Distributes fact sheets, booklets, legislative updates, news items, information on safety belt use laws. Awards certificates and pins to people "Saved by the Belt."

Distributes slide/tape demonstrations of safety belt effectiveness and use to dealerships; program guidelines for conducting in-house dealer training.
National Highway Traffic Safety Administration NTS-10
Office of Occupant Protection
400 7th Street, SW
Washington, D.C. 20590
Dean VanGordon
(202) 366-2709

National Passenger Safety Association
1705 DeSales Street, NW
Washington, D.C. 20036
(202) 429-0515

National Safety Council
444 N. Michigan Avenue
Chicago, IL 60611
Dick Tippie
Transportation Safety
(312) 527-4800

U.S. Conference of Mayors
1620 I Street, NW
Washington, D.C. 20006
Carol Moody Recker
(202) 293-73_0

Audio-Visual Material

Slide-tape presentations, films, videotapes, pamphlets, posters, bumper stickers, and other print and audio-visual materials for presentation/distribution to employees and their families are listed below:

Corporate Safety Belt Program: Slide-tape, (8 minutes) plus 16 mm film (5 minutes). Entire program on videocassette (13 minutes). Program aimed at management and employees. Presents the corporate safety director's approach to selling and implementing a corporate safety belt policy. 16mm film used with employees. Comes with Leader's Guide and pamphlet. Contact: F.L.I. Learning Systems, Inc., P.O. Box 2233, Princeton, NJ 08540, (609) 466-9000.

The Big Click: 16 mm film and videocassette (9 minutes). How safety belts work. Stresses the necessity of safety belts (with or without airbags), and child safety seats. Features candid interviews with elementary school children on why adults don't wear belts and what should be done about it. Contact: F. L. I. Learning Systems, Inc., P.O. Box 2233, Princeton, NJ 08540, (609) 466-9000.
Room to Live: 16 mm sound film, 30 minutes. Popular film for more than one session or when only a film is used. Contact: The Media Group, Ltd., 5989 Tahoe Drive, Grand Rapids, MI 49506, (619) 956-9583.

Safety Belts Save Lives: 16 mm sound film (2 minutes). Emphasizes the necessity of wearing both lap and shoulder belts. Contact: Chris Kennedy, Chrysler Corporation, P.O. Box 1919, Detroit, MI 48203, (313) 965-5741, (313) 956-3953.

Safety Belts and You: 16 mm sound film (8½ minutes). Demonstrates the effectiveness of safety belts in various types of crashes (roll-over, frontal, rear-end), showing the human collision in every instance. Contact: Ford Motor Co., American Road, Room 987, Dearborn, MI 48121, (313) 322-9172.


A Small Price To Pay: 16 mm film and videocassette (25 minutes). How to motivate employees to use safety belts by designing and implementing a comprehensive safety belt program at work. Emphasis is on use of incentives. Contact: E. Scott Geller, Dept. of Psychology, Virginia Polytechnica Univ., Blacksburg, VA 24061, (703) 961-6223.

Seat Sense: 16 mm and videocassette (12 minutes). Crash test footage on effects of incorrect child safety seat use. Most common modes of incorrect use are demonstrated. Contact: F. L. I. Learning Systems, Inc., P.O. Box 2233, Princeton, NJ 08540, (609) 466-9000.

Crashes That Need Not Kill: 16 mm film or videocassette (23 minutes). How airbags could save additional lives and prevent injuries. The film includes testimony of several crash victims who were "saved" by airbags. Contact: Insurance Institute for Highway Safety, Communications Dept., 600 New Hampshire Avenue, N.W., Washington, D.C. 20037, (202) 333-0770.

It'll Never Happen To Me: 16 mm film or videocassette narrated by a crash victim. This film presents factual information on common myths and excuses for not wearing belts. Contact: Visual Productions, Inc., P.O. Box 5472, Redwood City, CA 94063. (415) 799-7805.
Print Material


Safety Belts: An 11-page safety belt pamphlet for employees and their families. Challenges the most common excuses for not wearing safety belts. Also available are six reinforcing posters for employees and four posters reinforcing the importance of using child safety seats (1983). Contact: F.L. I. Learning Systems, Inc., P.O. Box 2233, Princeton, NJ 08540, (609) 466-9000.

Corporate Safety Belt Programs: A 174-page manual of ideas and suggestions for designing and implementing a corporate belt program. Contains action plan worksheets, sample pledge cards, management endorsements, employer testimonials, data recording sheets, incentive flyers and other material to sustain a corporate program (1985). E. Scott Geller, Department Psychology, Virginia Polytechnic University, Blacksburg, VA 24061, (703) 961-6223.
REFERENCES: WORKSITE SAFETY BELT PROGRAMS


American Hospital Association. Living is a Cinch (when safety belts are part of your life): A Resource Guide for Planning Hospital Based Occupant Protection Programs. Center for Health Promotion, AHA, Chicago, IL, 1985.


Automobile Clubs of Southern California. Safe Business Driving Program (draft), July 1986. (As quoted from How to Reach and Motivate Companies to have Occupant Protection Programs for their Employees, DOD/NHTSA, Region 9, April 1984.)


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APPENDIX A

COST PROJECTIONS AND SAVINGS WORKSHEET

Employee Safety Belt Use: What Can It Save Your Company?

Use this worksheet to determine what your company can save if employee safety belt usage is increased from 22 percent (an average estimate of employee use) to 60 percent level. Costs are those associated with hospital days and lost work days only.

EXAMPLE: Company A

YOUR COMPANY:

50,000 employees
75,000 dependents
$100 average cost to the company for each day an employee is absent
$500 average cost for each day an employee or dependent is in the hospital

I. With an average safety belt use of 22 percent, there will be one hospital day for every 70 employees and dependents. The annual cost to the company is:

COMPANY A:

\[ \frac{50,000 + 75,000 \times 500}{70} = \frac{50,000 \times 100}{12} \]

= $892,857

There will be one lost work day each year for every 12 employees. The annual cost to the company is:

\[ \frac{50,000 \times 100}{12} = \frac{416,666 \times 100}{12} \]

TOTAL ANNUAL COST: 22 percent safety belt use:

<table>
<thead>
<tr>
<th>Hospital days</th>
<th>$892,857</th>
<th>Hospital days</th>
<th>$__________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost work days</td>
<td>416,666</td>
<td>Lost work days</td>
<td>$__________</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$1,309,523</td>
<td>TOTAL</td>
<td>$__________</td>
</tr>
</tbody>
</table>
II. If safety belt usage is increased to 60 percent, there will be one hospital day for every 96 employees and dependents. The annual cost to the company is:

COMPANY A:  
\[
\frac{50,000 + 75,000}{96} \times 500 + \frac{50,000}{96} \times 500 = 651,041
\]

YOUR COMPANY:

\[
\frac{50,000 + 75,000}{96} \times 500 = \text{ } 
\]

There will be one lost work day each year for every 16 employees. The annual cost to the company is:

\[
\frac{50,000}{16} \times 100 = 312,500
\]

\[
\frac{50,000}{16} \times 100 = \text{ }
\]

TOTAL ANNUAL COST: 60 percent use:

Hospital days $651,041 Hospital days $\text{ }

Lost work days 312,500 Lost work days $\text{ }

TOTAL $963,541 TOTAL SAVED $\text{ }

ANNUAL SAVINGS BY INCREASING SAFETY BELT USE TO 60 percent:

COMPANY A:  

YOUR COMPANY:

Cost/Year  

Cost/Year

22% safety belt use= $1,309,523 22% safety belt use=

60% safety belt use= $ -963,541 60% safety belt use=

TOTAL SAVED $ 345,982 TOTAL SAVED $\text{ }

*Note: If your company's present safety belt use rate is below 22 percent or if increases exceed 60 percent, savings will be even greater.
APPENDIX B

MODEL SAFETY BELT USE POLICY

Purpose: The purpose of this statement is to establish mandatory belt usage as a company policy of the highest priority, and to designate responsibility for implementation and enforcement. This company recognizes that safety belts are an important personal protective item, and employees die needlessly and are injured due to their failure to use seat belts.

Scope: This policy applies to all employees and to all occupants of vehicles driven by employees on company business.

Policy: AVAILABLE SAFETY BELTS SHALL BE USED WHILE TRAVELING ON COMPANY BUSINESS. Occupants shall use the available restraints in company owned, leased, or rented vehicles whenever such vehicles are in use, and also in personal vehicles when used for company business.

Responsibility: Individual plants should supplement this general policy with local management commitment. Policy implementation will be the responsibility of appropriate line management.

Maintenance: Belt systems in all vehicles are to be upgraded where necessary and maintained so that they are clean, easily accessible, and in good working order.

Employee Education: Information on this policy shall be emphasized in employee orientation, driver training, and in employee handbooks. New employees will be required to sign a pledge to wear seat belts as a condition of employment. Materials should be provided frequently as reminders. Managers also are encouraged to promote seat belts to employees and their families off-the-job.

Enforcement: Seat belt use shall be enforced in the same manner, and with the same enforcement standards, as any other work rules. The driver of the vehicle is responsible for enforcing seat belt use by all occupants.

Evaluation: Compliance with this policy, enforcement problems, achievements, and ideas for strengthening the policy will be reviewed every month.
All About WBGH

The Washington Business Group on Health (WBGH), established in 1974, gives major employers a credible voice in the formulation of federal and state health policy. WBGH began with five companies and now works with more than 200 of the Fortune 500. WBGH members direct health care purchasing for 40 million of their employees, retirees and dependents.

In 1976, WBGH expanded to become the first national employer organization dedicated to medical care cost management. WBGH is an active participant in discussions, hearings and other aspects of the legislative and regulatory arena. It also serves as a reliable resource base providing information and expertise on a variety of health care issues and concerns as well as consulting to its members, government, other employers, health care providers, and the media.

WBGH, through its institutes and public policy division, provides long-range planning and analysis on many sensitive economic and social issues. As specific areas of need were identified, WBGH formed the Institute on Aging, Work and Health; the Institute for Rehabilitation and Disability Management; the Institute on Organizational Health; and Family Health Programs. WBGH also publishes two magazines, Business & Health and Corporate Commenzary, and other resource information, reports, studies, and surveys.

WBGH assists the business community through: the Policy Exchange telecommunications network; an annual conference to discuss new health policy issues, cost management strategies, benefit design solutions and health promotion ideas; formation of nationally recognized task forces on topics ranging from legal issues of interest to employers to tax policy; and numerous seminars on timely subjects such as AIDS and utilization data. WBGH has been instrumental in helping form over 35 local business health care coalitions across the country.