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Corporate Incentives for Promoting Safety Belt Use: Rationale, Guidelines and Examples

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16. Abstract

This manual was designed to teach the corporate executive successful strategies for implementing and evaluating a successful industry-based program to motivate employee safety belt use. A rationale is given for the general approach; and specific guidelines are offered for varieties of corporate settings. The use of incentives rather than disincentives is emphasized, and three basic application procedures are specified, depending upon the milieu: 1) direct and immediate rewards, 2) direct and delayed rewards, and 3) indirect rewards. Strategies are outlined for directing peer pressure toward safety belt promotion, and for maximizing cost effectiveness. All procedures and interventions are highlighted with actual examples of materials from prior industry programs that were particularly successful.

Twelve case studies of industry-based safety belt programs are presented which successfully applied the principles and procedures suggested in this manual. Each case study includes a specification of the intervention program, the evaluation procedure, the program expense, the outcome of the program with regard to changes in safety belt wearing, and personal testimonials. Outcome data and testimonials support the central theme of this manual, namely that an appropriate application of behavior modification principles can affect remarkable increases in safety belt use and immeasurable benefits to individuals involved in traffic accidents and to the industry as a whole.

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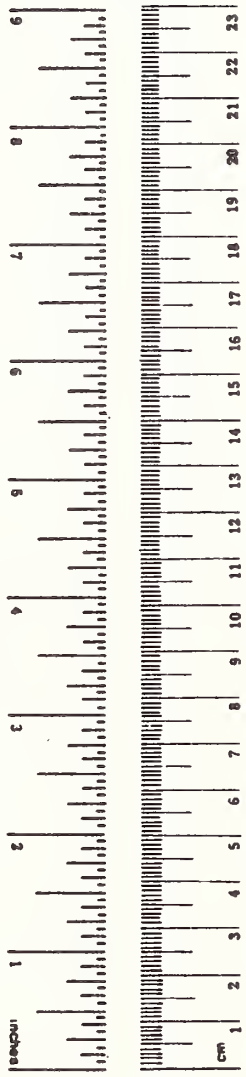
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
	LENGTH			
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
	AREA			
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
	MASS (weight)			
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
	VOLUME			
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
	TEMPERATURE (exact)			
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
	LENGTH			
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
	AREA			
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
	MASS (weight)			
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
	VOLUME			
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l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
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°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

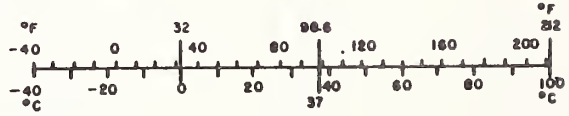

Table of Contents

Executive Summary

This manual was designed to teach the corporate executive successful strategies for implementing and evaluating a successful industry-based program to motivate employee safety belt use. A rationale is given for the general approach, which is based on theory and methodology of behavior modification; and specific guidelines are offered for varieties of corporate settings. The use of incentives rather than disincentives is emphasized, and three basic application procedures are specified, depending upon the milieu: 1) direct and immediate rewards, 2) direct and delayed rewards, and 3) indirect rewards. Prior research has demonstrated special motivational advantages of peer pressure, and therefore the manual outlines tactics for directing peer pressure toward safety belt promotion. Also emphasized are strategies for maximizing cost effectiveness, including the procurement of donations from community merchants, the use of contests and games which require few costly rewards, and the application of schemes which take advantage of naturally occurring motivators. All procedures and interventions are highlighted with actual examples of materials from prior industry programs that were particularly successful.

Twelve case studies of industry-based safety belt programs are presented which successfully applied the principles and procedures suggested in this manual. Each case study includes a specification of the intervention program, the evaluation procedure, the program expense, and the outcome of the program with regard to changes in safety belt wearing. Personal testimonials are offered with each case. These testimonials support the central theme of this manual, namely that an appropriate application of behavior modification principles can affect remarkable increases in safety belt use and immeasurable benefits to individuals involved in traffic accidents and to the industry as a whole.

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The author appreciates the long-term support of four industries in southwest Virginia, where much data summarized herein were gathered, i.e., Corning Glass Works, Federal Mogul, Harvey Hubbell Lighting Division, and Radford Army Ammunition Plant. The students who worked on these research projects are too numerous to name, but their assistance is deeply appreciated. The outstanding leaders of these projects deserve special acknowledgement, including: Cheryl Bruff, Susan Collier, John Cope, Elizabeth Davis, Mark Davis, Andrea Dunn, Heidi Ann Hahn, Lisa Patterson, Agustin Reyna, Elizabeth Talbott, Wade Thompson, and Martha Wilhelm. A special thanks to Agustin A. Reyna for his dedication and patience in preparing the IBM word processor to print several versions of this document and to students and colleagues who provided helpful refinement suggestions on earlier drafts, including Bruce Bigelow, Mark Davis, Greg Dobbins, Heidi Hahn, Kathryn Kramer, Jim Landon, Bill Read, Sandy Richardson, Jim Rudd, Dave Sleet, Ann Talton, Karen Taylor, and Hilde Van Dun.

Encouraging Safety Belt Use

Any voluntary behavior requires both direction and motivation in order to occur. That is, people need to know what to do and have the desire to do it. Determining the factors which influence the direction and motivation of behavior has been the focus of literally thousands of research investigations conducted by behavioral scientists. Thus, principles from behavioral science research are available for the design of optimal programs for directing and motivating behavior in various situations. Many of these principles of behavior are applicable to the development of cost-effective programs for encouraging the use of vehicular safety belts in corporate settings.

Figure 1

Requirements for Action

Direction

Since many people do not know the appropriate procedure for using a vehicular safety belt, a safety belt program often needs a directional or educational component. A demonstration of the proper way to wear a safety belt, followed by personal instruction and feedback during actual practice of the belt wearing response, is probably the best method of teaching appropriate safety belt use. However, for a corporate safety belt program, posters, pictures, and group presentations of verbal or written instructions should be sufficient for providing direction. Once a person knows how to put on and adjust a safety belt, the safety belt is easy to use. Thus, the direction component of a corporate program for encouraging safety belt use

can be accomplished quite simply.

Motivation

The critical component of a corporate program to encourage safety belt use is motivation.

Even though most people think they know how to wear vehicular safety belts, most people do not wear them. Thus, a campaign to increase safety belt use must include strategies for motivating behavior. A successful corporate safety belt program should apply a variety of these strategies.

Motivating Behavior with ANTECEDENTS

One way to motivate safety belt use is to present cues or reminders (i.e. antecedents). The following list represents a sample of antecedents which can increase the likelihood of safety belt use.

- Design an environment that makes safety belt use convenient and comfortable [e.g., designing a shoulder/lap belt assembly which is easy to reach, pull, adjust, and connect].

- Add something which reminds people to buckle up [e.g., adding a 4-6 sec. reminder buzzer which sounds following the turn of a vehicle ignition switch if front-seat safety belts are not buckled].

- Announce with verbal or written instructions that rewards will be given to individuals who are observed wearing their safety belts -- this is an INCENTIVE [e.g., running an ad in the employee newspaper which announces that lottery tickets are assigned to every vehicle with a buckled driver and that the tickets will be used in a raffle drawing for a $50 prize].

- Announce with verbal or written instructions that undesirable consequences will follow noncompliance with a safety belt policy -- this is a DISINCENTIVE. [e.g., mailing letters to employees that threaten a fine of $10 when observed driving a company vehicle without wearing a safety belt].

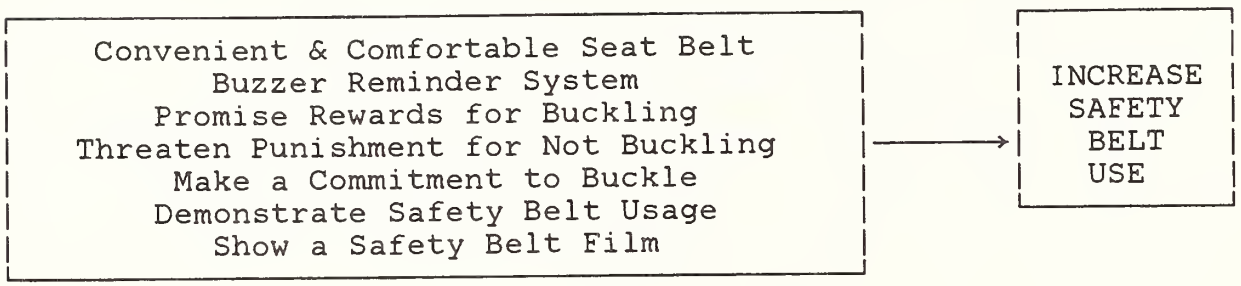
- Get a person to make a commitment verbally or in writing to wear a safety belt regularly [e.g., signing a safety belt pledge card whereby the individual agrees to wear a vehicular safety belt for four consecutive weeks].

- Buckle your safety belt in the presence of another person who has not yet buckled up -- this is termed MODELING [e.g., putting on one's safety belt when driving with another person who does not typically wear a safety belt].

- Present slogans, demonstrations, instructions or educational materials which urge safety belt use -- this can be in the form of films, lectures, T.V. or radio announcements, newspaper articles, educational pamphlets, posters, signs, or verbal slogans [e.g., displaying signs which urge belt usage and posters which show the daily percentages of workers observed wearing their vehicle safety belts while entering and exiting the plant's parking lot].

Figure 2

Antecedents Which Can Increase Safety Belt Use



One antecedent does not preclude the application of another. Actually, all of the conditions listed in Figure 2 could be used simultaneously in an attempt to increase safety belt use. In fact, such a comprehensive program can be very inexpensive and feasible for most industrial settings.

Motivating Behavior with CONSEQUENCES

Research on motivating safety belt usage has demonstrated that using cues or reminders are usually not sufficient to motivate large numbers of individuals to buckle up. It is necessary to add consequences (rewards or punishments) following behaviors. Thus, it is essential to follow through with promises to reward safety belt usage and with threats to punish nonoccurrences of safety belt use.

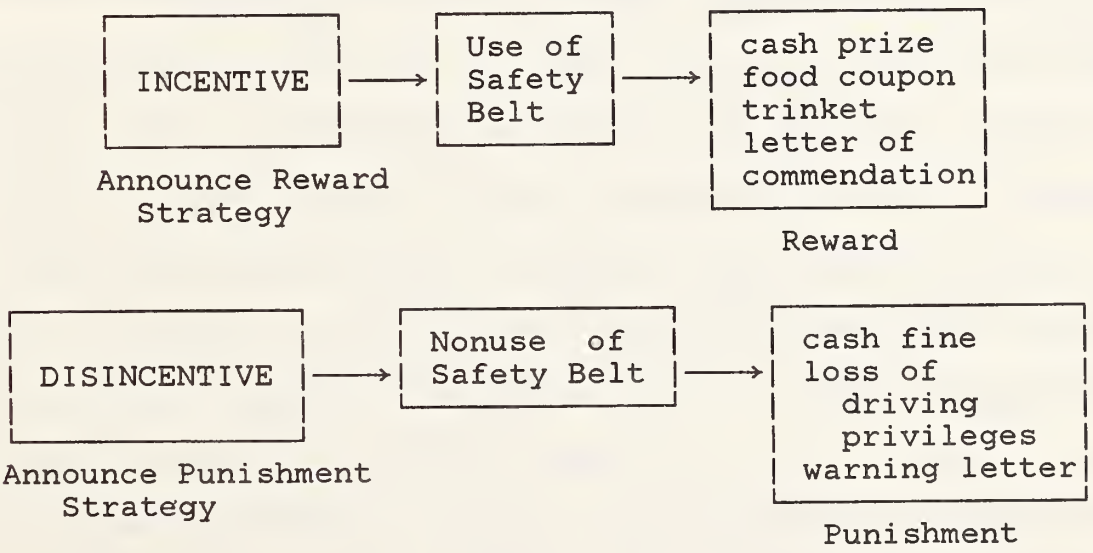
Rewards and Punishments

Approaches for motivating safety belt use can employ pleasant consequences (i.e., rewarding safety belt users) or unpleasant consequences (i.e., punishing nonusers of safety belts). The choice of which approach to

use depends upon the particular corporate environment, and the philosophy and goals of the safety program. In general, reward strategies are preferable. However, it is not necessary to reward every occurrence of seat belt wearing. In fact, behavioral scientists have observed a critical advantage of following some rather than all occurrences of the desired behavior with a reward. The use of intermittent rewards increases the likelihood that the desired behavior will continue when rewards are no longer available. This is a special advantage of using reward rather than punishment strategies. In other words, if the probability of receiving a consequence (pleasant or unpleasant) is relatively low, individuals are usually influenced more by a slight possibility of winning a reward for seat belt wearing than by a slight possibility of receiving punishment for noncompliance.

Figure 3

Consequences Which Can Increase Safety Belt Use



There are other advantages of reward strategies, as determined by laboratory and field research, and these serve as the rationale for choosing

incentives as the basis for a corporate program to motivate safety belt use.

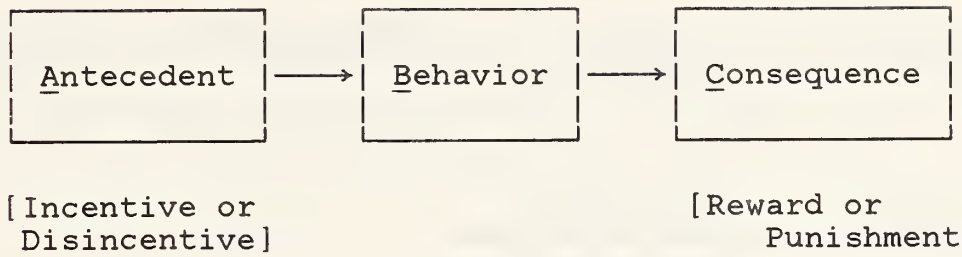
- Reward strategies are readily acceptable by the target population, whereas punishment strategies are not.
- For the same amount of behavior change, enforcement of a punishment strategy usually takes more time and effort than the implementation of a reward strategy.
- The administrator of rewards is liked and respected; whereas the administrator of punishment is often disliked and not respected.
- The attitudes and values accompanying behavior change are usually positive when the behavior was changed to earn a reward, but are often negative when the behavior was changed to avoid punishment.
- A punishment strategy is much more likely than a reward strategy to threaten one's perception of personal freedom, and perceived threats to personal freedom sometimes result in active resistance.
- Reward strategies are more likely than punishment strategies to influence behavior change in situations where the consequences are not immediately available.
- When a behavior change program is stopped, the beneficial effects of reward strategies will last longer than the beneficial effects of punishment strategies.
- Incentive or reward programs set examples for the type of training and motivational techniques that are effective and feasible in other settings (e.g., in the home, the school, and in institutions).

These points do not negate the importance of a comprehensive safety belt program which applies both rewards and punishments. In fact, each approach can support the other, resulting in maximum motivation. Thus, industries with an existing mandate and punishment policy for safety belt use can increase the acceptability and beneficial impact of such a program by adding reward strategies. Moreover, it must be realized that there is not one optimal incentive program for every corporation. While the laboratory data may suggest one particular technique over another, the real-world situation may require that another technique be applied. Thus, it is imperative for management to understand what conditions are required for a particular incentive strategy and then to determine whether that strategy can be applied

in a given setting.

Figure 4

The ABC's of Motivating Behavior



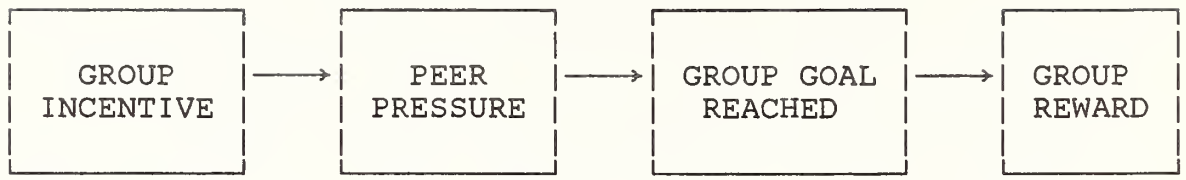
Group-Based Rewards

An important distinction between incentive programs is whether rewards are given on the basis of individual or group behavior. In other words, a reward can be given to individuals when they are observed wearing their safety belt, or a reward can be given to everyone within a particular group when that group has reached a particular goal of safety belt usage. A special advantage of offering group-based rewards is the social or peer pressure which may result to encourage belt usage. Such peer pressure is particularly prevalent when a competition is promoted between two or more groups. Consider, for example, an incentive program which provides a special gift to the work group that maintains the highest rate of safety belt use over a one-month period. Such a competition will be particularly effective in promoting peer pressure for encouraging safety belt use if public charts display the daily usage percentages of each work group.

Because group competitions require a natural grouping of individuals and a method of objectively assessing the performance of each group, this particular type of program is infeasible for many industrial settings. However, a group-based incentive strategy which provokes beneficial peer pressure without requiring competition is feasible for most corporate settings. Consider, for

Figure 5

The Group-Based Reward Strategy



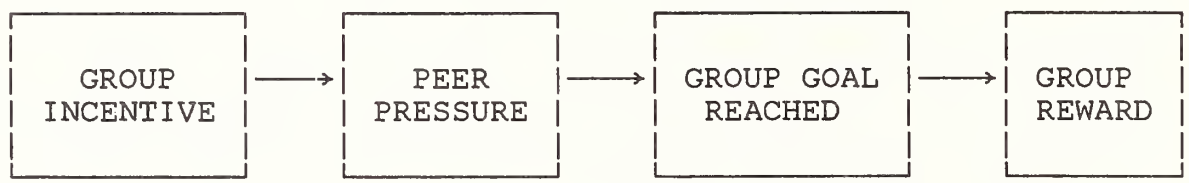
Offer group-based reward

Intragroup cooperation and intergroup competition

example, the group contingency implemented at the General Motors Technical Center in Warren, Michigan. This GM incentive program for motivating safety belt usage, termed "Seat Belt Sweepstakes," required that the group (i.e., the entire work force of 6,000 employees) reach a certain percentage of average safety belt usage (i.e., the group goal) before a raffle was held in which a new car was awarded as first prize.

Figure 6

The GM Seat Belt Sweepstakes



Reach 70% belt use and a new car is raffled off.

Co-workers "remind" each other to buckle.

70% belt use occurs.

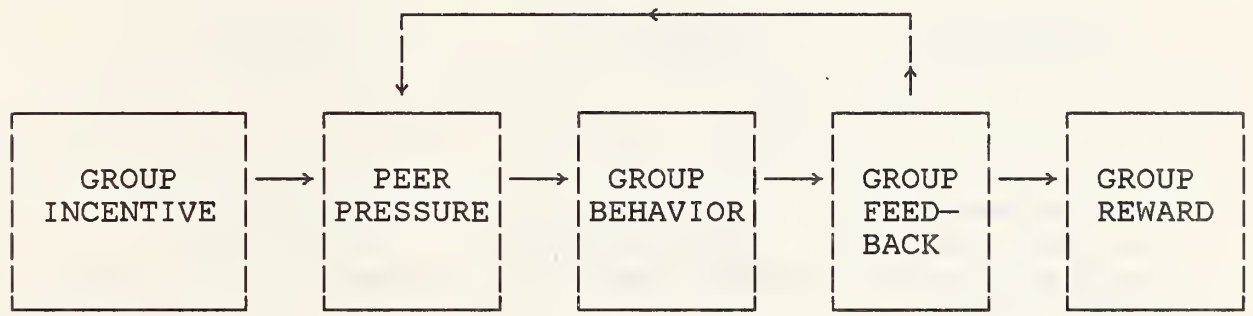
A raffle drawing for a new car.

An alternative group-based incentive program which has large-scale applicability was recently initiated with prominent success at two smaller

plants (of approximately 500 employees each) in Virginia. For this program a single cash prize was raffled off each week. The amount of cash award for a particular raffle was dependent upon the average percentage of safety belt use by the winner's work group (hourly or salary employee) during the prior week (i.e., the cash prize amounted to one dollar per percentage point). One aspect of this latter program which made it particularly successful was the daily posting of the percentage of hourly versus salary workers wearing their safety belts when entering and exiting the company parking lots. This feedback strategy kept the employees informed of the group's progress, and as shown in a variety of community-based programs for promoting behavior change, had motivating properties of its own.

Figure 7

The Virginia Cash Raffle



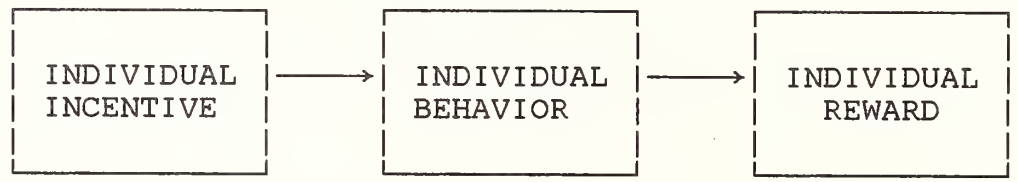
Individual-Based Rewards

A special advantage of the Virginia cash raffle and the GM Seat Belt Sweepstakes is that each incorporated an individual-based reward component along with the group-based reward contingency. In other words, these incentive programs included a reward contingency for both the group as a

whole and for individual program participants. Specifically, for the Virginia incentive program, participation in a weekly cash raffle was determined by individual safety belt use each day. That is, vehicles were observed daily as they entered and exited the company parking lots; and for each front-seat occupant observed wearing a shoulder or lap belt, the vehicle license plate was written on a lottery ticket and entered in the next raffle. Thus, individuals received a chance to win the weekly raffle each time they buckled up (i.e., an individual-based reward strategy), while the amount of cash awarded the raffle winner was based upon the weekly performance of the group (i.e., a group-based reward strategy).

Figure 8

The Individual-Based Reward Strategy in Virginia



Obtain a raffle coupon each time an individual is seen wearing a safety belt.

Individuals increase their safety belt use.

One coupon per observation of safety belt use.

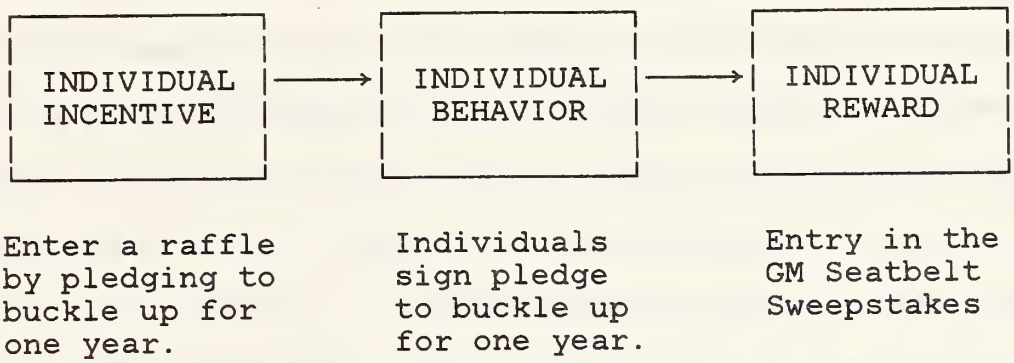
Safety Belt Pledges

The GM facility is too large to base an individual-reward strategy on actual safety belt use. This is the case for many industrial complexes. However, an individual-based reward program was implemented at GM which is applicable for most plants, even those with no parking facilities and a work staff that uses public transportation to commute. Specifically, for each raffle safety belt pledge cards were distributed to the employees, and these cards had to be signed and turned in for an entry in the raffle. Signing the pledge

card committed the employee to buckle up for an entire year. Thus, employees at the GM Tech Center pledged to wear their safety belt in order to enter the raffle (an individual-based reward strategy), but the raffle (with a new car as first prize) was not held until the entire work force reached a certain level of safety belt usage (a group-based reward strategy).

Figure 9

The Individual–Based Reward Strategy at GM



A pledge to wear one's safety belt is obviously no guarantee that safety belts will actually be worn. For optimal effectiveness, rewards should be associated directly with the desired response; that is, rewards should be contingent upon actual safety belt wearing. However, this was impractical at the large GM facility, so an individual-based reward strategy was implemented to motivate individual commitment to buckle up. Past behavioral research has shown that commitment to make a particular response often leads to actual occurrences of that response.

Incentive Phase Out

The cash raffles implemented at the Virginia plants were initially offered every week. After one month the raffles were given every other week, and eventually the raffles occurred only monthly. The poster display of daily safety belt usage remained in place throughout this entire incentive period.

This procedure illustrates an important principle of behavior management with rewards. Specifically, an incentive program should begin with the highest frequency and quantity of rewards that are practical, and then the frequency or amount of rewards should be decreased in successive stages until rewards for desired behavior are offered very infrequently and in small quantities. Sometime later, another reward program should be implemented again in full force in order to regain the high usage levels obtained during the prior reward program.

It is important to realize from the start that safety belt usage will decrease after the reward program is stopped. Some employees will only buckle up during the reward program. Recent research has shown, however, that the beneficial impact of a reward program can last for several months after the rewards for belt usage are no longer offered. A gradual, rather than an immediate, withdrawal of the rewards should reduce and slow down the expected decline in belt wearing that will occur after the reward program is discontinued. Following removal of the reward program, belt usage should level off at a rate higher than that which occurred before the program began.

Renewed Incentives

A most important point is that it should not be necessary to ever stop completely a corporate incentive program for promoting safety belt use. Much evidence points to the fact that it is very cost effective for a company to offer rewards on an annual basis for safety belt usage. For example, a DuPont plant of 1,200 employees (i.e., Berg Electronics in New Cumberland, Pennsylvania) spends $10,000 annually on rewards to motivate employee safety belt use. The company management staff has decided that this rather large expenditure is more than worth the larger corporate costs avoided, especially since the result is a consistent 90% off-the-job usage rate of safety belts among plant employees. Thus, Berg management has offered rewards for

safety belt wearing intermittently each year since April 1980, when their first comprehensive incentive program was initiated.

Variety

It is advisable to vary the nature of the reward program with regard to both the arrangement for delivering rewards (e.g., group-based versus individual-based strategies) and the type of rewards delivered (e.g., cash, raffle tickets, meal coupons, preferential parking stickers, candy, or letters of commendation from the work supervisor or plant president). Some employees will acquire the habit of buckling up and develop positive attitudes about vehicle safety belts during the first reward program; for other employees it will take repeated reward programs to promote a usage habit. Some employees will never acquire the habit of buckling up, but most of these employees will wear a safety belts when reward opportunities are available for doing so. Thus, much beneficial behavior change can be expected to result from a corporate-based reward program to promote safety belt use. A reward program will be acceptable to the entire work force and can be cost effective when implemented periodically.

Employee Involvement

The success of any effort to promote behavior change can be benefited significantly by involving the potential participants in program planning and implementation. This is basically the concept of "participatory planning," and the motivational benefits of such an approach have been documented by numerous industrial psychologists. In addition to increasing motivation, "participatory .planning" can also result in optimal suggestions for program refinement. In other words, by involving the employees in the design and administration of a safety belt incentive program, the astute observer can gain valuable information regarding the most and least acceptable aspects of a program and obtain employee-based recommendations for program modification.

A corporate incentive program to motivate safety belt use should be introduced as the employees' program (not as an outside effort or an administrator's idea). From the start, suggestions should be solicited from both white-collar and blue-collar workers. If possible, employees should take part in material preparation, data collection, and reward administration. If a raffle is held, it should be as public as possible; and an employee should draw the winning ticket. A reward-based program will be accepted by most and will more than double the existing level of safety belt use, regardless of who does the planning and administration. However, the acceptance and impact of a reward program for motivating safety belt use will be even greater if the employees perceive the program as their own, as a result of their own input into program planning, administration, evaluation, and refinement.

Recommendations

The following list reviews strategies to motivate safety belt use in a corporate setting. Each recommendation represents a conclusion based on much behavioral research and should be considered when designing an incentive-based program for motivating safety belt use.

- In most corporate situations a reward program will be more feasible and more effective than a punishment program, although it is quite possible to use both approaches simultaneously in order to motivate safety belt use.
- Make employees aware of the reward program, and use every available source of advertisement (e.g., through posters, flyers, signs, public announcements, personal letters, and articles in the employee newspaper).
- Apply a group-based reward strategy, if possible, in order to provoke beneficial peer pressure.
- Display the groups' progress toward achieving a belt usage goal on a public chart.
- Use an individual-based reward strategy, if possible, whereby individuals receive an immediate prize or an opportunity to win a

prize in a drawing for wearing their safety belt.

- Fade out the rewards in successively decreasing steps of frequency and/or amount, rather than dropping a reward program abruptly.

- Implement a safety belt reward program periodically each year; it will be cost effective to do so.

- Involve the plant employees as much as possible in the design and administration of the incentive program.

- If it is not possible to reward individuals for actually wearing their safety belt, incorporate an incentive program that offers reward opportunities for making a commitment to buckle up (e.g., by signing a safety belt pledge card).

Guidelines for Implementing an Incentive Program to Motivate Seat Belt Use

This section offers guidelines for setting up an industry-based incentive program for promoting the use of vehicular safety belts. Examples of recommended techniques are also provided. The suggested procedures and examples have been tested in a number of field experiments and have produced remarkable results, more than doubling the rate of seat belt usage. Some industries have applied these incentive strategies on their own to produce substantial increases in safety belt use among their employees; some of the most exemplary of these programs are summarized in the next section.

There are generally three basic reward strategies for motivating safety belt use:

- Stop vehicles when entering or exiting the plant and offer prizes immediately to seat belt wearers.
- Observe seat belt usage while vehicles are entering or exiting the plant, and without stopping the vehicles, implement a procedure for randomly selecting winning license plate numbers of vehicles with buckled occupants.
- Indirectly reward seat belt wearing by offering prizes for formal commitments to buckle up.

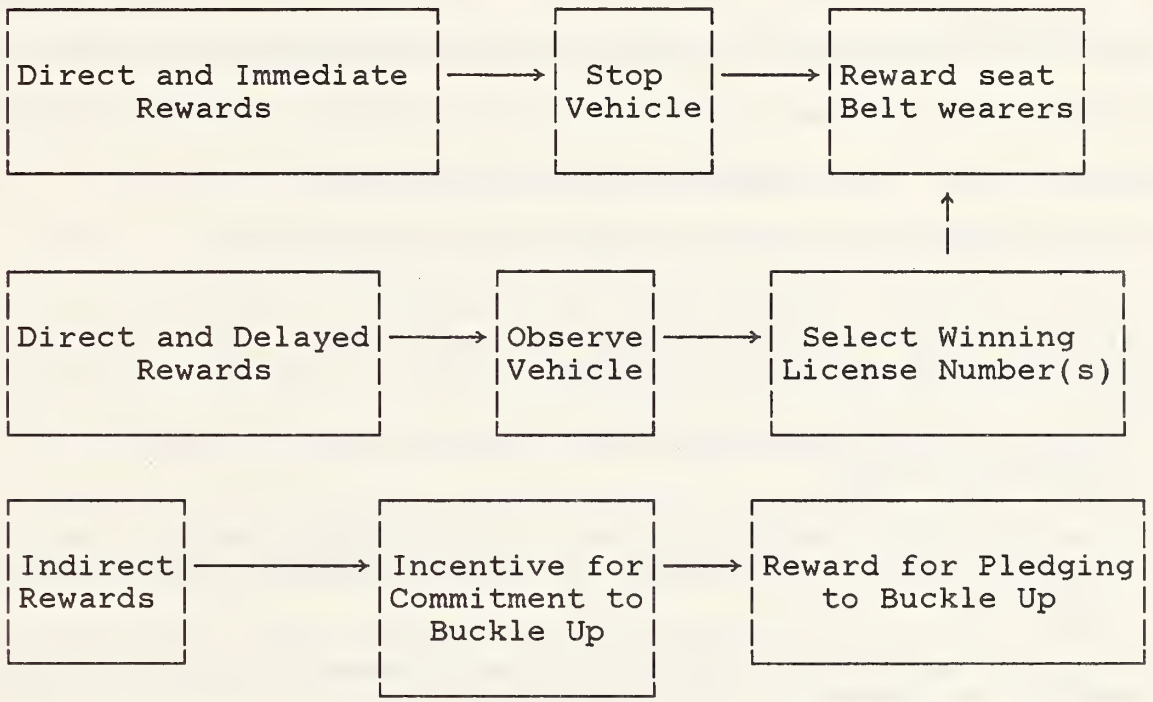
Incentive programs work best when the desired behavior (i.e., seat belt wearing in this case) can be rewarded immediately. However, in many settings it is not practical to stop vehicles in order to reward belt users immediately. There may be too many entrance/exit points, or the rate of traffic flow at one gate may be too high for convenient and safe vehicle stopping.

In some plant settings employees do not park their vehicles on the premises and therefore, it is impossible to observe belt usage and offer direct rewards for belt use. Some success has occurred with programs that use rewards to motivate the signing of pledge cards which commit the signers to

wear their safety belt consistently for a designated period of time. Such an indirect reward strategy can be especially effective if coupled with an appropriate education program (as described below) and periodic reminders that pledge-card commitments were made (e.g., with signs, public announcements, and newspaper reports). At any rate, a critical initial task of the program developer is to evaluate the industrial complex and decide which type of incentive strategy is most feasible.

Figure 10

Three Basic Types of Reward Programs



Awareness Strategies

Regardless of the particular strategy for rewarding belt wearing, the employees should be made aware of the value of seat belts and the corporate plan to promote safety belt use. This does not mean that an elaborate, time-consuming educational program must be implemented. Indeed, most educational campaigns to promote belt wearing (including films, demonstrations, lectures,

pamphlets, and group discussions) have failed when implemented in industrial and community settings, unless coupled with procedures to reward usage or punish nonusage of vehicular safety belts.

On the other hand, simple and inexpensive educational (or awareness) techniques can increase substantially the impact of a corporate incentive program. For example, a recent stucy in Virginia observed a tripling of safety belt usage among blue-collar workers for a one-month period (from 5% to 15% mean belt usage) following a 20-minute "awareness session" that included a 3-minute film, a discussion, and an introduction to the use of incentives in order to get the belt use habit started. Seat belt use tripled to a mean of 45% among hourly workers during the subsequent incentive program (described later in this report). In general, before initiating an incentive program consider the following guidelines for planning an educational program to increase employees' awareness of the value of safety belts.

- Identify with the group through personal dress, verbal expression, and body language.
- Make formal presentations (e.g., movies, lectures, demonstrations) dynamic but short.
- Use small-group sessions in order to involve the audience as much as possible, from hand raising to verbal discussion and personal testimony.
- Discuss reasons for buckling up when statements from the audience make them relevant.
- Attempt to identify the topics listed on the flyer in Appendix A when discussing reasons for wearing safety belts. [A flyer similar to that given in Appendix A might be distributed at the awareness session, as a reminder of reasons for buckling up.]
- Introduce the incentive strategy as a reminder of the plant's concern for safety, not as a technique to modify behavior.
- Explain why it is cost effective for the plant to spend time and money on the promotion of safety belt usage.
- Point out that it is natural to forget to buckle up, and therefore the plant will periodically implement strategies to remind plant employees

of the value of wearing safety belts.

For some industrial settings it may be difficult, if not impossible, to arrange for small group meetings of all the employees. If this is the case, other means of communicating with workers should be used to inform them of the plant's concern that employees buckle up. There are many possibilities for disseminating this information, including signs, flyers, bulletin board notices, personal letters, newspaper articles, public announcements, and slogans in paycheck envelopes. It is advisable to use as many approaches as possible, and to apply a promotional campaign and concomitant incentive strategy at least once each year. An incentive approach toward increasing safety belt use should not be a one-shot effort, but a continual, commonplace occurrence in the work environment.

Direct and Immediate Rewards

A direct and immediate reward strategy for motivating safety belt use requires that vehicles be stopped, and that occupants wearing a lap or shoulder belt be offered a prize of some sort. Most of the case studies presented in the next section of this report followed this direct and immediate reward technique by stopping vehicles while they entered or exited the industrial complex and offering small prizes to safety belt wearers. The prizes have usually been relatively inexpensive and have varied widely in type (e.g., from coupons exchangeable for $5 or hamburgers to flowers, candy, or trinkets). It is particularly worthwhile to solicit donations from community businesses for prizes. This reduces the program expense and involves the local community in a worthwhile safety effort. A variety of donations is quite easy to obtain. Most community merchants will recognize the special good-will advertizing available for their support of a local safety belt program. For example, thousands of hamburger coupons, as shown in Appendix B, were donated for a very successful industry program in Little

Rock, Arkansas.

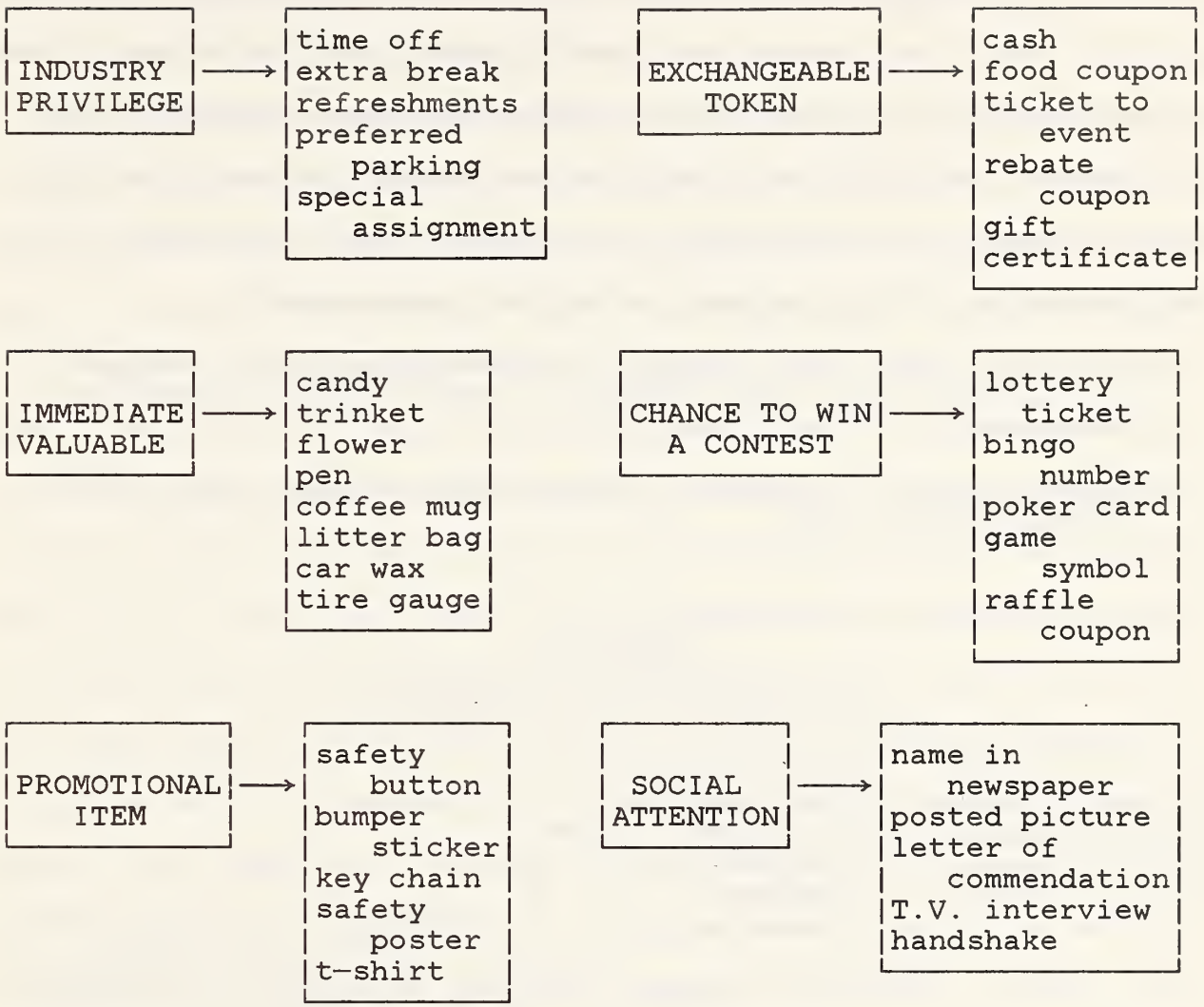
The flyer in Appendix C describes an incentive program implemented successfully at four industries and a large university in southwest Virginia. The program relied almost totally on contributions from local businesses. Employees became aware of the incentive plan by reading the flyer, and had to wear their safety belts in order to receive additional flyers which could be exchanged for prizes donated by local merchants. The logos of the contributing merchants were printed on the back of each incentive flyer (see Appendix C); this motivated subsequent contributions by these and additional merchants.

The flyer shown in Appendix C actually depicts two approaches toward decreasing the expense of an incentive program. Soliciting community donations is one way, and the other is to implement a game or contest of some sort that does not result in awarding a prize to everyone. The "combination game," described on the flyer, required the participants to wear their safety belts in order to collect winning combinations of the symbols printed on each flyer (like playing 5-card poker). A similar game approach which was also quite successful in motivating safety belt usage is shown in Appendix D. For this strategy, drivers initially received a bingo card which displayed the contributing merchants and outlined the rules of the game. Each time drivers were observed wearing their safety belts they were given a bingo number and a chance to win the game and receive a prize. The prizes, donated by local merchants, were illustrated on the bingo cards.

The variety of possible games or contests that can be devised for a corporate incentive program are countless. Games and contests have the special benefit of promoting verbal interaction among employees regarding the incentive program. For example, employees traded combination flyers and bingo numbers among one another in order to increase their chances of

Figure 11

Varieties of Possible Rewards



winning. Indeed, some employees buckled up as a result of peer pressure to have a combination flyer or bingo number to trade. Thus, it is advantageous to elicit social interaction about safety belts and peer pressure to buckle up; this should be considered when planning an incentive program.

Direct and Delayed Rewards

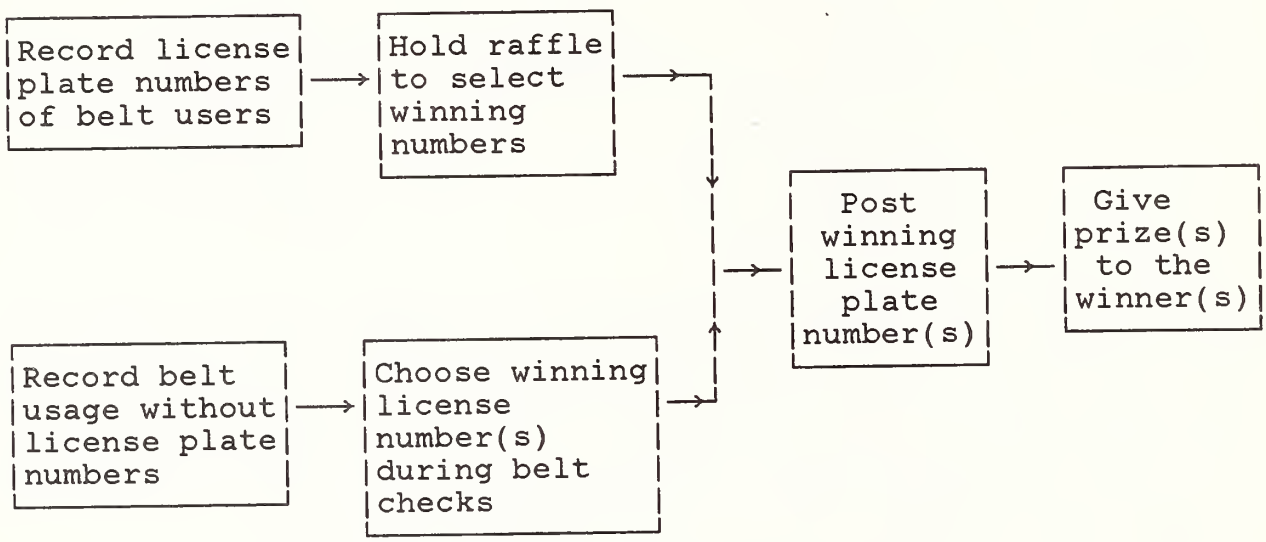
Behavioral scientists have shown that delayed rewards are less effective than immediate rewards in motivating behavior. However, rewards for seat belt use must be delayed when vehicles cannot be conveniently stopped for a

safety belt check. Fortunately, delayed reward tactics have been developed for effectively motivating safety belt use in corporate settings. A lottery system is one recommended approach. The winning license plate numbers of seat belt wearers are selected and publicly posted, and the owners of the winning license plate numbers can claim their prizes at an announced location. Two different procedures have been used successfully to select the lottery winners. Specifically, during daily or intermittent safety belt audits in the field, one of the following selection procedures is recommended.

- Record the license plate numbers of all vehicles with belt users and then use their license plate numbers in a raffle drawing to choose the winners,or
- Randomly select the winning license plate numbers from among vehicles with belt users.

Figure 12

Two Delayed Reward Tactics



Appendix E includes the handout used to promote a very successful incentive program that incorporated the first delayed reward tactic described above. On each observation day a vehicle license plate was entered in a weekly cash raffle for each belt user observed in that vehicle when entering

and exiting the two company parking lots. [It is noteworthy that this arrangement provoked peer pressure to buckle up. That is, some vehicle owners requested other vehicle occupants to buckle up in order to increase their chances in the weekly lottery.]

For entrance/exit sites with high rates of traffic flow, it may be impossible to record license plate numbers and occupant safety belt use. However, in such situations the second delayed reward strategy can be applied. This type of program was implemented quite successfully at a large industry of 3,000 employees in southwest Virginia, where vehicles exited the plant's main gate in two lanes at peak rates approximating two to three vehicles per second. The procedure was implemented as follows: a specific time was randomly selected each day, occurring during the afternoon exit period from the plant (i.e., from 4:00 to 4:45 p.m.). Two observers recorded safety belt use during the exit period (without noting vehicle license plates); and when the critical time for a given day occurred, the next vehicle that passed with a buckled driver was declared the single winner for that day. The winning license plate number each day was posted on a 4' x 8' marquee, readily visible to incoming vehicles; and a list of winning plates for a two-week period was included in the employee newspaper distributed biweekly. The winners were instructed to go to the plant's safety office in order to claim their prize, which was their choice of either a pair of tickets to a basketball game at the local university or a meal for two at a local restaurant. These prizes were certainly modest (valued at $12 each) and were donated for the safety belt program. Employees were made aware of this "prize-a-day" incentive via posters placed throughout the plant and by a special article appearing in the employee newspaper, as given in Appendix F.

Details of this prize-a-day program were given because it was so simple to implement and was remarkably successful. Regardless of size, any industry

with facilities for employee parking and a minimal number of entrance/exit locations could run a daily license plate raffle as described above. An increase in impact and cost effectiveness could be realized with higher valued or more frequent prizes than those used in the Virginia program. A key component is an effective strategy for informing the employees of the program. Employee newspapers are convenient, but not necessary. Indeed, small group "awareness sessions," as described earlier, may be most effective.

Indirect and Delayed Rewards

The successful GM Sweepstakes program (see Appendix G) did not include a daily observation of employee belt use, and rewards were not given for individual belt wearing. Enough data recorders were just not available for observing the five entrance/exit gates throughout three shift changes. Instead, gates and observation times were randomly selected for periodic sampling of belt usage in order to determine progress toward a group goal, and participation in the seat belt sweepstakes was an indirect reward for safety belt wearing. Specifically, one's ticket for the lottery was a signed pledge card which committed the signer to use vehicular safety belts for one year. There is certainly no guarantee that signing a pledge card was followed by consistent safety belt wearing, but at least sweepstakes winners reported to others (including newspaper reporters) that they were in favor of safety belts and at least tried to remember to buckle up. In fact, signing pledge cards does promote interaction among peers that is apt to encourage belt usage. For example, once a person admits to another that s/he has entered the sweepstakes (by pledging to use vehicular safety belts for one year), it is likely that s/he will buckle up in the presence of that other person.

Basing an entire incentive program on pledge card signing is not advisable unless absolutely necessary. However, a pledge card strategy can be a

valuable supportive component in a multifaceted attempt to increase corporate safety belt use. For example, a pledge card strategy was particularly effective at a large Virginia plant in maintaining the high rates of belt use that had been reached months earlier by the prize-a-day program (described previously). Furthermore, the pledge card program was very easy to implement by printing pledge cards in the biweekly employee newspaper, and placing raffle boxes throughout the plant to receive signed cards. Copies of the newspaper articles which explained the pledge card program and printed the pledge cards are included in Appendix H.

Getting employees to make a commitment to use seat belts (e.g., by signing a safety belt pledge) is the next best thing to getting them to actually buckle up. Such an indirect reward procedure is certainly advisable for those companies that cannot observe their employees drive to and from work. Consider how simple it is to distribute pledge cards at the end of an employee meeting or in paycheck envelopes. Incentive strategies will no doubt be necessary to get a maximum number of pledge cards signed and turned in. Appendix I offers a sample pledge card which can be readily customized for a particular industry.

Group Rewards

The pledge card program implemented at the GM Tech Center was especially effective because the program also included a group-based incentive. Specifically, as described in the flyer for GM Seat Belt Sweepstakes I (see Appendix G), a raffle-drawing (with a new car as first prize) was held on a particular date only if a particular group goal was reached. Seat Belt Sweepstakes I was held in May 1982 when an average rate of safety belt usage reached 50%, and Seat Belt Sweepstakes II occurred in July 1982, after the group goal of 65% usage was reached. The third GM usage goal is 70%, and Seat Belt Sweepstakes III will be held in October 1982

if the group reaches that goal. [Prior to this incentive program, the average rate of belt usage among the 6,000 employees at the GM Tech Center was 36%].

A special advantage of a group-based incentive strategy is that it encourages employees to promote belt usage among other employees. Indeed, one's own peer group is often the best motivator of individual behavior.

Appendix E includes a flyer which describes a group-based reward program that was successful in motivating many hard-core nonusers of safety belts to buckle up. For this program (implemented at two industries in southwest Virginia) a raffle was held once a week, with cash awarded to the one winner. Since the amount of the cash award was dependent upon the average rate of seat belt use during the prior week (i.e., $1 for every percentage point), some employees attempted to influence other employees to buckle up. In fact, this group contingency was perhaps the critical component for making the program so effective among blue-collar workers, increasing their belt usage from an average of 15% to a mean of 45%.

Summary Recommendations

The following points summarize guidelines for implementing a corporate incentive program to motivate safety belt use. Each point requires careful attention if an incentive program is to have maximum impact.

- Evaluate the industrial setting and decide whether it is feasible to reward individuals directly and immediately for wearing their safety belts while entering or exiting the plant.
- It is not necessary to reward every vehicle occupant for belt usage -- concentrate on the driver when time is limited.
- It is not necessary to provide expensive prizes for every safety belt wearer -- lottery coupons or chances to win a company contest can be used as rewards.
- Offering chances to win games, such as Bingo, for belt wearing is an inexpensive incentive strategy that promotes supportive interactions among employees.

- Some games and group-based reward strategies have the potential of promoting peer pressure to buckle up.

- Apply a group-based reward component, if possible, whereby a certain privilege (i.e., group reward) is made available when a group goal of seat belt use is reached.

- When applying a group-based reward strategy, set a reasonable group goal -- one that is reachable but also challenging.

- When applying a group-based reward strategy, use frequent feedback procedures (e.g., public charts) to keep workers informed of their progress toward achieving the group goal.

- There are a variety of possible rewards within the general categories of industry privileges, immediate valuables, promotional items, exchangeable tokens, chances to win contests or games, and social attention.

- Public recognition for winning a safety belt game (e.g., through announcements at group meetings and in employee newsletters) can be as rewarding and motivating as material goods.

- Special attention or commendation from prominent industry officials for safety belt usage (e.g., through personal verbalization or a letter) can be an effective reward -- and it is certainly inexpensive.

- The success of an incentive program is dependent upon the employees becoming aware of the reward strategy, so various dissemination approaches should be used (e.g., newsletters, public announcements, signs, posters, newspaper articles, and special "awareness sessions").

- The more simple the reward strategy, the easier it will be to make workers aware of it without misunderstandings.

- Involve the industrial staff, preferably prominent individuals, in the implementation of the incentive program, including the reward presentations.

- Notify local newspapers of the incentive program and prompt the publication of one or more articles to advertise the program, recognize special contributors, and mention prize winners.

- Solicit prize donations from local merchants and advertise such community support whenever possible.

- Do not stop an incentive program abruptly -- fade it out gradually by successively decreasing the size of the rewards, the frequency of the reward opportunities, or the probability of winning a reward-based game or contest.

- Do not expect one incentive program to have a permanent impact -- plan for periodic administration of incentive strategies.

- Between successive incentive programs, vary the type of reward and the procedure for offering rewards.

- If exiting or entering vehicles cannot be conveniently stopped to reward belt wearers, use a delayed reward tactic to select winning license plate numbers.

- If it is infeasible to observe employees driving to or from work (e.g., because parking facilities are not provided on the plant's premises), implement an incentive plan that rewards employees for making a formal commitment to wear their safety belts (e.g., by signing a safety belt pledge card).

- Remember that the incentive program is for the employees; it is their program. Incorporate techniques that demonstrate this fact (e.g., by soliciting suggestions for program refinement and by attempting to follow those suggestions that are reasonable).

Case Examples of Corporate-Based Safety Belt Programs that Applied Incentive Strategies

This section outlines the components of exemplary safety belt programs that were effective in substantially increasing the wearing of safety belts among corporate employees. The impact of each program is specified with regard to changes in actual safety belt use, and personal testimonials are offered for most cases. Also reviewed are the observation procedures used to evaluate program impact.

The case study information was derived from an examination of the materials used in each program and from a lengthy questionnaire which was completed by the contact person for each industry. Each contact person also reviewed a preliminary draft of the summary for his or her industry and offered comments and suggestions for a revision. Further specifics regarding the procedures or results of a particular program can be obtained by communicating with the appropriate contact person. Addresses and phone numbers are given.

The ordering of the case examples was essentially based on the program longevity, completeness of evaluation, and cost effectiveness. Several programs had been in place for only a few months when the reviews were written, and therefore planned follow-up evaluations had not been accomplished. Four programs were conducted as research projects and naturally included extensive evaluation components; whereas most of the other programs focused much more attention on an intervention (i.e., getting increases in belt use) rather than on evaluation of specific program effects. Therefore, the ordering is not necessarily related to potential long-term impact.

Case 1

Industry
E.I. DuPont - Berg Electronics
515 Fishing Creek Rd.
New Cumberland, PA 17070

Contact Person
Ken Spoonhour
Berg Electronics
515 Fishing Creek Rd.
New Cumberland, PA 17070
(717) 938-7477

A. Description of Industry

1. Service

-Production of terminals and connectors for electronic industry.

2. Employees

a) Approximately 300 white-collar and 500 blue-collar workers.
b) Toolmakers, machinists, technical engineers, warehouse laborers, clerical, maintenance and administrative personnel.

3. Parking Facilities

a) One entrance/exit to the company parking lot.
b) All employees travel to work in vehicles that are parked within the industrial site.

4. Formal Safety Belt Policy

a) Safety belt use is mandatory when traveling on company business.
b) The message, "SEAT BELT USE IS REQUIRED ON COMPANY BUSINESS" is posted in all company cars.
c) All company policy is reviewed with new employees.

B. Description of Safety Belt Program

1. Educational Components

a) From May through July 1980 each employee attended a required two-hour safety meeting each month [six-hour exposure per employee].
b) Employees met in groups of 30 to 40, heard lectures from state police, viewed relevant films, and participated in safety discussions.
c) Bumper stickers distributed to each employee.
d) Safety belt posters changed weekly.
e) Reminders to buckle up disseminated bimonthly in paychecks.

2. Disincentives

-All on-the-job vehicle accidents are investigated and employees can lose their jobs if they were not wearing their safety belts.

3. Incentives (promotion of rewards)

-The administration of rewards for belt use was advertised on:

a) Marquee at plant entrance.
b) Posters in plant.
c) Television and newspapers.
d) Flyers distributed with paychecks.
e) A letter mailed to each employee's home.

4. Individual Rewards

a) Unannounced audits occurred three randomly-selected days per month at which belt users received rewards.
b) Varieties of rewards included: car wax, tire cleaner, tar remover, car wash, flares, tire gauge, Tastycake pie, silver dollar, Hardee's coupon, drinking mug, key chain, air freshener, and letters of commendation.
c) Belt users received buttons and flowers, which they wore in the plant for exposure to non-wearers.
d) On some occasions rewards were distributed by persons in costume; e.g., at Easter, two eight-foot rabbits gave a safety brochure and a flower to each belt wearer.

5. Group Rewards

a) Group usage goals were set periodically, and the entire staff earned a prize when the goals were met. For example, when 90% usage was reached for one two-month period, each employee could choose from a brochure of 71 gifts valued from $12 to $15.
b) Progress toward group goals was displayed publicly with a barometer sign.

C. Impact of Safety Belt Program

1. Monitoring Procedure

a) Vehicles were stopped at entrance to parking lot and occupants were checked for shoulder belt and lap belt usage.
b) Three to six observers did the monitoring, but the same data was not recorded independently by two observers.
c) Observers were not noticeable until vehicle reached the plant property.

2. Pre-Treatment Belt Use

a) Belt checks have occurred once a month per work shift since 1977.
b) In 1977 mean usage was 44% across 12 monthly checks.
c) In 1978 mean usage was 46% across 12 monthly checks.

3. Post-Treatment Belt Use

a) One belt audit has occurred each month per work shift since

April 1980.

b) Average belt usage has reached 90%, ranging from 70% to 95% usage.

D. Program Benefits

1. The relatively high two-year base rate of 45% usage was doubled to a record mean usage rate of 90% after the incentive program.

2. Berg management kept records of employee traffic accidents and estimated the following savings in 1980 due to safety belt use:

   a) One fatality was averted with a minimum savings of $18,500 under the DuPont Benefit Plan. [The employee lost just one work day due to the accident.]
   b) Four other accidents involved six employees who escaped serious injury and possible fatality by wearing their safety belts. [No workday was lost.]
   c) A positive attitude toward safety reduced total workdays lost by 74% compared to 1979, saving 337 days of lost work time and $26,960 in disability pay.

E. Direct Costs

-The initial program (1980) cost approximately $24,000 ($30 per employee), and each subsequent year about $10,000 has been spent on rewards for promoting safety belt use ($12.50 per employee per year).

F. Evidence of Management Support

1. Management has developed, maintained, evaluated and funded the entire campaign and will continue to support the incentive program annually.

2. Top-level managers are present at the entrance/exit gate during safety belt audits.

G. Testimonials

-Jackie Heck, first shift inspector at Berg Electronics, was involved in an automobile accident only eight blocks from her home which totalled her car and two others. Mrs. Heck and her son escaped without injury because both were wearing their safety belts. In Mrs. Heck's words, "...it was no coincidence that we wore our seat belts on that holiday season afternoon. The education and encouragement toward driving safety and seat belts that I heard at work had previously made me a seat belt advocate."

Case 2

Industry	Contact Person
Laughlin Air Force Base U.S. Air Force Del Rio, TX 78843	Herman Dean Ground Safety Manager Laughlin Air Force Base (512) 298-5662

A. Description of Industry

1. Service

-Pilot training, maintenance, supply, transportation and support facilities to support approximately 200 trainer aircraft.

2. Employees

a) Approximately 1500 white-collar and 2000 blue-collar workers.
b) Approximately 3000 military and 500 civilian workers.
c) Instructor pilots, pilot trainees, aircraft maintenance personnel, engineers, management and personnel staffs.

3. Parking Facilities

a) Almost all of the employees travel to work in vehicles that are parked at the Air Force base.
b) Most vehicles pass through a main entrance/exit gate when arriving to or departing from work.

4. Formal Safety Belt Policy

a) Air Force regulation states that all military and civilians operating or riding in private motor vehicles in a Department of Defense installation will wear safety belts if available.
b) Vehicle registration at Laughlin requires the installation of workable safety belts.

B. Description of Safety Belt Program

1. Educational Components

a) Continual reminders in base newspaper, in employees' newsletter, at supervisor safety meetings, on local radio, signs, handouts, and billboards.
b) Film presentations to almost all employees on appropriate use and effectiveness of safety belts.

2. Disincentives

-The first time a vehicle occupant is caught not wearing a safety belt s/he receives a warning letter from supervisor. The letter states that if the individual is observed not wearing a safety belt twice in six months, s/he will not be permitted to drive a car on the base for 30 days.

3. Incentives (promotion of rewards)

   a) 30-day special education and promotional campaign informed employees of rewards.
   b) Vehicle occupants were informed when caught not wearing safety belts.
   c) Articles in staff publications (almost weekly) and local newspapers (every 2 to 3 weeks).

4. Individual Rewards

   a) The names of seat belt users were put into a raffle box, and each month four winners were drawn for awards.
   b) Four safety awards were presented by department chiefs at group meetings and included two free dinners (valued at $25 each), $10 cash from the credit union, and a pen and pencil set (valued at $15).
   c) Photos and names of the monthly winners were published in the base newspaper.

C. Impact of Safety Belt Program

1. Monitoring Procedure

   a) On eight randomly selected days per month, unannounced surveys occurred at random locations of the Air Force base (e.g. main exit/entrance gate, parking lots, and side streets) from 5:30 a.m. to 9:00 p.m. (30 to 60 minutes of observation per location).
   b) Cars were stopped for safety belt check, and therefore both shoulder and lap belt users were observed.
   c) One to two observers were used per location.
   d) Each month about 100 vehicles were checked unobtrusively from inside the gate guard house for safety belt use of vehicle occupants.

2. Pre-Treatment Belt Use

   -Mean usage from July 1979 to February 1980 (eight days per month) was 49%.

3. Post-Treatment Belt Use

   a) An average of 87% usage from June 1980 to December 1980 (eight days per month).
   b) The six month "special emphasis program " has occurred each year, and in 1981 the lowest usage was 70% and the high was 95%.
   c) In 1982, lowest belt usage was 86% and the high was 98%, with a seven-month average of 92%.

D. Program Benefits

1. The introduction of incentives for belt wearing increased a high

pre-treatment mean of 49% belt usage to a record high mean of 87% safety belt use.

2. Safety belt use has remained at record high levels as a result of annual education, reminder, and incentive strategies.

E. Direct Costs

-About $75 per month for rewards (26 cents per employee each year).

F. Evidence of Management Support

1. Each year the six-month program is administered and evaluated by the full-time Air Force safety staff.

2. The reward costs are covered from funds budgeted for safety promotion materials.

3. The base credit union had donated $10 each month for the incentive program.

G. Testimonial

1. In June, 1982 Airman First Class Danny L. Norton excaped serious injury when the dump truck he was driving rolled over several times after swerving off the highway. "I'm sure glad I had my seat belt on. I don't know how many times I rolled, my mind kept fading in and out, but I remember my arm kept flopping out the window and I kept grabbing it and pulling it back in," said the airman.
According to Herman Dean, The Ground Safety Manager at Laughlin, the seat belts were a life saver... "If he hadn't been wearing seat belts he probably would have followed his arm out the window and ended up with five tons of truck on top of him."

2. In July, 1982 two airmen were both buckled in their car when another vehicle struck them from behind at 80 mph. One airman wrote, "...As I entered the car the first thought that came to my mind was to buckle up for safety, they are always checking and I didn't want to get caught... Just as we were about a mile out, I heard this loud bang behind me, then glass breaking. My head was being hurdled toward the front window, when suddenly I felt a tug around my waist...It was then I realized that if I hadn't been wearing my seat belt I may have been thrown through the windshield of the car, my friend also. I don't like seat belts anymore than the next guy because they can be a nuisance. But I'm sure glad it's the law of the land on Laughlin and a damn good one!!"

3. In August, 1982 an airman totalled his 1980 Datsun when crashing into a 1978 Mercury sedan. The airman and his passenger were wearing both lap and shoulder belts, and neither were seriously injured. The airman stated the following regarding the incident, "The Air Force's persistence on seat belt usage is what started me wearing them. I figured if they are stressing it so much, there must be something to it. I also feel that I have control of the car

rather than the car controlling me. Seat belts did prevent serious injury and possible death to my friend and myself. My friend and I won't get into an automobile, front or back, without putting on seat belts."

4. Herman Dean, the Ground Safety Manager at Laughlin Air Force Base, has been promoting safety belt use for 15 years and wrote the following:

"It's been my experience that positive incentives work best in getting people to initially use belts and negative incentives and education work best at maintaining usage of belts ... Our seat belt program has proven to be our most effective, productive and cost effective program ... Just in the past six months alone we have had three automobile accidents where drivers claim seat belts saved them from serious injuries or death. Not counting overhead, we spend about $800 on incentives - What's one life worth? ... As long as I'm Safety Manager we will have an incentive program - even if I have to cheat, lie, or steal the incentives."

Case 3

Industry
General Motors Corporation
Technical Center
Warren, MI 48090

Contact Person
Terry D. Horne
Auto Safety Engineering
G.M. Tech Center
(313) 492-1080

A. Description of Industry

1. Service

-Automotive research, development, and manufacturing.

2. Employees

a) Approximately 4500 white-collar and 1500 blue-collar workers.
b) Scientists, engineers, research and development personnel, skilled tradesmen, maintenance and clerical staffs.

3. Parking Facilities

a) Five entrance/exit gates to the Tech Center.
b) All employees travel to work in vehicles that are parked at the industrial site.

4. Formal Safety Belt Policy

-All occupants of company owned vehicles are expected to wear their safety belts.

B. Description of Safety Belt Program

1. Educational Components

-10% to 15% saw the film "Room to Live" after the incentive program was initially announced.

2. Disincentives

(none)

3. Incentives (promotion of rewards)

a) Safety belt pledge cards distributed to all employees with an explanatory letter from the group vice-president in charge of Tech Center staff.
b) Announcement posters in lobbies; flyers on bulletin boards.
c) Articles in staff publications (almost weekly) and local newspapers (every 2 to 3 weeks).
d) Reminder signs at each entrance/exit gate; car bearing promotional message parked at some gates.

4. Individual Rewards

a) When turning in a pledge card that committed the signee to buckle up for one year, the individual's name was entered in a Tech Center-wide lottery.
b) A new car was the top prize for each of three lotteries; other prizes included the following per raffle drawing: watches (10), travel alarm clocks (10), pen watches (10), and a plastic model car (4).
c) After two successful lotteries, 500 certificates for a Wendy's hamburger were distributed at the entrance/exit gates to safety belt wearers.

5. Group Reward

-A certain cumulative average of safety belt usage had to be reached in order for the Tech Center-wide lottery to be held.

C. Impact of Safety Belt Program

1. Monitoring Procedure

-Obtrusive recording of shoulder belt usage of driver and right-front passenger at all five entrances/exits to the site.

2. Pre-Treatment Belt Use

-36% mean usage across two morning sessions and two afternoon sessions at each entrance/exit gate.

3. Post-Treatment Belt Use

a) The group goal of 50% average cumulative usage for one month was exceeded for "Seat Belt Sweepstakes I." Actual average usage was 60%.
b) The group goal of 65% average cumulative usage for one and a half months was exceeded for "Seat Belt Sweepstakes II." Actual average usage was 66%.
c) The group usage goal for "Seat Belt Sweepstakes III" is 70% average cumulative usage for three months , and in late September, 1982 the cumulative average usage was 69.2% and climbing.
d) Daily usage has ranged from 45% to 85%, depending on particular entrance/exit gate and time of day.

D. Program Benefits

-Daily belt usage has been consistently above the relatively high pre-program usage rate, with a current average almost twice that of the pre-program rate.

E. Direct Costs

1. Prizes for each of three lotteries were valued at approximately $10,000 ($30,000 total or $5 per employee).

2. Wendy's donated 500 hamburger certificates valued at approximately $500.

F. Evidence of Management Support

1. The program was developed, managed, and evaluated by Tech Center staff.

2. GM Corporation donated the top raffle prizes (i.e. three cars); all other lottery prizes were donated by the GM Men's Club.

G. Testimonials

1. Larry J. Szydlowski, Senior Project Engineer at the Tech Center, admitted that he usually didn't wear a safety belt. However, since he signed a pledge card for the Seat Belt Sweepstakes, he was wearing his safety belt when a van ran into his 1979 Chevette. In his words, "I wouldn't want to go through that again without one (a safety belt)... If it wasn't for this program (the GM incentive program), I certainly wouldn't have been wearing one (a safety belt)... It (the program) made a believer out of me."

2. Renee M. Holthus, a Tech Center employee wrote, "Before the program began, I rarely wore my seat belt ... I had always ignored the seat belt buzzer, so I had no other reminder. When the program started, it gave me an incentive. For the first few weeks, each time I got into my car I thought of winning the 'Big Prize.' After a while, wearing my seat belt became a habit -- a good habit! I know after the program is complete, I'll still be wearing my seat belt."

3. Anna L. Clark, a worker at the Tech Center Central Cafeteria, admitted to "getting kind of sloppy about buckling up. But since the seat belt program began, I've been wearing it all the time and now it's become a habit again."

4. G.J. Porzadek wrote the following to Terry D. Horne regarding the GM Seatbelt Sweepstakes, "As a former employee of Automotive Safety Engineering, I am fully aware of the benefits afforded by seat belts available to us as vehicle drivers and occupants. Unfortunately, many of us were not regular or even casual users due to complacency, forgetfulness, or any of a number of reasons. I personally feel that the program is a success due to the fact that it has reminded me of the importance to "Buckle Up"... This Seat Belt Sweepstakes program hopefully is extending itself to relatives and friends of GM Tech Center employees through our example of "Buckling Up."

Case 4

Industry
Harvey Hubbell Lighting, Inc.
2000 Electric Way
Christiansburg, VA 24073

Contact Person
E. Scott Geller
Department of Psychology
Virginia Tech
Blacksburg, VA 24061
(703) 961-6223

A. Description of Industry

1. Service

-Manufacturing and marketing of lights and lighting fixtures.

2. Employees

a) Approximately 150 white-collar and 325 blue-collar workers.
b) Production workers, accountants, engineers, maintenance, administrative and clerical personnel.

3. Parking Facilities

a) All employees travel to work in vehicles that are parked on the plant premises.
b) A separate parking lot for white-collar and blue-collar workers, with one entrance/exit per lot.

4. Formal Safety Belt Policy

(none)

B. Description of Safety Belt Program

1. Educational Components

a) Blue-collar workers met in a 20-minute group "awareness session" (20 to 40 employees each session) and viewed a 3-minute film on the effectiveness of safety belts, listened to the group leader's testimony of the value of safety belts, participated in a question and answer period, and then heard about the group leader's general concept regarding the application of incentive strategies to get belt wearing started.
b) White-collar workers did not experience the safety belt awareness sessions.

2. Disincentives

(none)

3. Incentives (promotion of rewards)

   a) Four days before rewards were administered, the reward program was explained verbally to blue-collar workers during the last ten minutes of their monthly plant meeting.
   b) All employees received a flyer which described the upcoming reward program.
   c) An announcement of the reward program was posted on the two employee bulletin boards, one for blue-collar and the other for white-collar workers.

4. Individual Rewards

   a) On consecutive Mondays for four weeks, a raffle drawing was held to award cash to one winner. [The Personnel Director drew the winning lottery ticket.]
   b) A license plate number was entered into the raffle each time a buckled occupant was seen in the vehicle during a.m. arrival and p.m. departure.
   c) The one winning license plate number per raffle was posted on the two employee bulletin boards, and winners reported to the Personnel Director for their prize.
   d) The date of the next raffle was posted on the employee bulletin boards.

5. Group Rewards

   a) The amount of cash awarded each Monday was dependent upon the average seat belt use of the winner's work group (i.e., blue-collar vs. white-collar employees) during the week preceding the raffle.
   b) The number of license plate entries per observation was dependent upon the number of vehicle occupants wearing a safety belt.
   c) The daily cumulative percentages of seat belt wearers for blue-collar vs. white-collar workers were displayed on a large histogram chart which was posted on the two employee bulletin boards.
   d) The date of the next raffle was posted on the employee bulletin boards.

C. Impact of Safety Belt Program

1. Monitoring Procedure

   -Two observers in orange safety jackets recorded shoulder belt usage of vehicle drivers as they entered and exited the plant's parking lots during the morning (arrival of Shift 1, departure of Shift 3) and afternoon (departure of Shift 1, arrival of Shift 2).

2. Pre-Treatment Belt Use

   a) The occurrence of daily safety belt checks was announced with large posters on the employee bulletin boards.

b) 6.1% mean usage among blue-collar workers over ten consecutive workdays (a.m. and p.m.).
c) 15.3% mean usage among white-collar workers over ten consecutive workdays (a.m. and p.m.).

3. Post-Treatment Belt Use

a) 17.8% mean usage among blue-collar workers over the four-week period after the awareness sessions but before the reward period (20 consecutive workdays, a.m. and p.m.).
b) 44.1% mean usage among blue-collar workers over the four-week period during the weekly raffles.
c) 35.2% mean usage among white-collar workers over the four-week period during the weekly raffles.

D. Program Benefits

1. Shoulder belt usage among blue-collar workers increased almost threefold as a result of the short awareness sessions, and remained at this increased level for an entire month.

2. The reward program, including individual and group incentives, more than doubled the relatively high belt usage of blue-collar workers that had occurred as a result of the awareness sessions. This represented a sevenfold increase over the low pre-treatment level of safety belt use.

3. The belt usage of white-collar workers more than doubled during the reward program.

E. Direct Costs

-The four cash rewards amounted to $154.30 (32 cents per employee).

F. Evidence of Management Support

1. The program was conducted as a research project under financial support from the U.S. Department of Transportation and General Motors Research Laboratories.

2. Management has been very cooperative with this research, which requires many more evaluation procedures than a standard corporate-based program.

3. More research data will be obtained at this site, including a study of the impact of slowly fading out the reward program (e.g., by offering the cash raffle biweekly, then monthly, then bimonthly, etc.).

Case 5

Industry
Radford Ammunition Plant
Radford, VA 24141

Contact Person
E. Scott Geller
Department of Psychology
Virginia Tech
Blacksburg, VA 24061
(703) 961-6223

A. Description of Industry

1. Service

-Production of ammunition propellants and explosives.

2. Employees

a) Approximately 600 white-collar and 2400 blue-collar workers.
b) Construction workers, engineers, research and development personnel, general laborers, clerical and administrative staffs.

3. Parking Facilities

a) All employees travel to work in vehicles that are parked at the industrial site.
b) About 75% of the workers enter and exit the 4000 acre complex through the main gate (with guard house); there are two additional entry points that can be used.

4. Formal Safety Belt Policy

a) Employees riding in Army vehicles on the plant premises must wear their safety belts.
b) Workers are reminded of this policy by memoranda and verbal statements from management and work supervisors.

B. Description of Safety Belt Program

1. Educational Components

(none)

2. Disincentives

(none)

3. Incentives (promotion of rewards)

a) Ten posters describing the reward strategy were distributed throughout the plant.
b) An article in the employee newspaper explained the reward program one week before its implementation.
c) A college student in a turkey costume (the familiar mascot of the local university -- Virginia Tech) stood at the main

entrance/exit on a random 50% of the reward days with a large sign that read, "Prizes awarded to seat belt wearers."

4. Individual Rewards

a) Each afternoon for three consecutive weeks, a winning license plate was randomly selected from those vehicles exiting the main gate with drivers wearing a shoulder belt.
b) The winning numbers were posted on a large marquee at the main gate and in the employee newspaper.
c) The winners claimed their prize at the Safety Director's office.
d) The prize was their choice of either a dinner for two at a local restaurant, or two tickets for an upcoming basketball game at the local university (Virginia Tech).

C. Impact of Safety Belt Program

1. Monitoring Procedure

a) Shoulder belt usage recorded by two observers while vehicles exited the main gate in the afternoon.
b) The observers stood at the gate wearing orange safety jackets and holding clipboards, and thus were quite obtrusive.

2. Pre-Treatment Belt Use

a) Employees were informed of the daily safety belt checks by an article in the plant newspaper.
b) 6.7% mean usage over 25 consecutive workdays, with daily usage ranging from 0% to 12.5%.

3. Post-Treatment Belt Use

a) 23.1% mean usage during the 15 consecutive workdays of the "prize-a-day" reward strategy, with daily usage ranging from 14% to 27%.
b) Follow-up observations were initiated 24 days after the last day of the reward period; and average usage was 16.3% over 38 days, with daily usage ranging from 7% to 17.5%.

D. Program Benefits

1. Safety belt usage increased more than threefold during the simple and inexpensive "prize-a-day" program.

2. After the rewards were withdrawn, belt usage maintained a level more than twice the pre-treatment level.

E. Direct Costs

1. The total value of the rewards was only $180 (6 cents per employee).

2. All of the basketball tickets were donated by the Virginia Tech

Athletic Office.

3. Half of the dinners were donated by a local restaurant.

F. Evidence of Management Support

1. The program was conducted as a research project by behavioral scientists, and was supported by grants from the U.S. Department of Transportation and General Motors Research Laboratories.

2. Top management has cooperated fully with this and other research endeavors to determine optimal strategies for promoting safety belt use.

G. Testimonials

1. According to Doug Day, Safety Manager at Radford Army Ammunition Plant, "The seat belt incentive program conducted at Radford Army Ammunition Plant by researchers from Virginia Polytechnic Institute and State University has been instrumental in aiding the enforcement of seat belt usage plant-wide."

2. Colonel Eifried, Commander-in-Chief of Radford Ammunition Plant, wrote the following: "I have been very pleased with the response to the seat belt incentive program conducted by Virginia Tech researchers at Radford Army Ammunition Plant. Through the use of incentives, our seat belt usage increased to a percentage higher than the national average. Since safety of personnel is always our number one priority, I have fully endorsed the efforts of Dr. Scott Geller and his team in promoting seat belt usage at this facility."

Case 6

Industry
Blue Cross and Blue Shield
of North Carolina
Chapel Hill - Durham Blvd.
Durham, NC

Contact Person
William W. Hunter
UNC Highway Safety
Research Center
Chapel Hill, NC 27514
(919) 962-2202

A. Description of Industry

1. Service

-Administration of medical insurance.

2. Employees

a) 386 white-collar and 727 blue-collar workers.
b) Administrative, accounting and clerical staffs.

3. Parking Facilities

-Most employees travel to work in vehicles that are parked at the industrial site, including a few van or bus pools. Remainder dropped off or picked up.

4. Formal Safety Belt Policy

(none)

B. Description of Safety Belt Program

1. Educational Components

-20 minute awareness sessions for all employees were conducted by senior staff from the UNC Highway Safety Research Center; approximately 60 employees attended each session which included:

a) Lecture
b) Films showing appropriate use and effectiveness of safety belts.
c) Flyer and brochure stating the value of safety belts.
d) Flyer describing the reward program.

2. Disincentives

(none)

3. Incentives (promotion of rewards)

a) Announcement and explanatory flyer given at awareness sessions.
b) Periodic bulletin board messages; theme: "Plan to Survive."

c) Weekly announcements in employee newsletter.

d) Periodic radio and newspaper coverage.

4. Individual Rewards

a) For one month (June 1982) randomly selected vehicles were stopped daily at entrance/exit to parking lots and occupants wearing a safety belt were handed a coupon redeemable for $5.
b) All coupons were entered in a raffle drawing for three $100 gift certificates.
c) About 270 coupons were distributed, with approximately 230 employees winning once, 30 winning twice, and 10 winning thrice. No one was permitted to win more than three $5 coupons.

C. Impact of Safety Belt Program

1. Monitoring Procedure

a) Shoulder-belt usage of drivers recorded from car parked at entrance/exits to parking lots.
b) Most observations were taken by two data recorders.
c) Employees were informed of the audits, and the observers were obtrusive.

2. Pre-Treatment Belt Use

a) 10% mean usage over 12 observation days.
b) Employees were informed of this safety belt check through in-house newsletters.
c) Vehicles were not stopped for these checks.

3. Post-Treatment Belt Use

a) 54% mean usage over 19 observation days during the month when rewards were given. [Vehicles were not stopped for these checks.]
b) 25% mean usage over 11 observation days during the month following the reward period. [Vehicles were not stopped for these checks.]

D. Program Benefits

1. Fivefold increase in safety belt wearing during incentive period.

2. Belt usage remained at a level 150% greater than that observed before the safety belt program.

E. Direct Costs

-$1945 for the rewards ($1.75 per employee).

F. Evidence of Management Support

1. The program was designed, administered, and evaluated by staff at the UNC Highway Safety Research Center, and funded with a grant from the National Highway Traffic Safety Administration.

2. Management has shown sincere interest in supporting a version of the program with their own personnel.

G. Testimonial

-Frank Williams, the Safety/Security Manager of Blue Cross and Blue Shield of North Carolina, wrote the following after witnessing the incentive program and its impact: "We believe sincerely that the safety program promoting seat belt use was effective and will prove to be of value in saving the lives of our employees. We like the simplicity and the way the program was conducted by the UNC Highway Safety Research Department. We will continue to periodically remind employees about seat belt use and value."

Mr. Williams agreed with the statement that incentives promote positive attitudes about seat belts, and urged that a corporate policy offer rewards for buckling up. In his words, "... this (a reward strategy) would be the only way we would consider such a program. You do not accomplish anything by threatening employees."

Case 7

Industry	Contact Person
Federal Mogul U.S. 460 South Blacksburg, VA 24060	E. Scott Geller Department of Psychology Virginia Tech Blacksburg, VA 24061 (703) 961-6223

A. Description of Industry

1. Service

-Manufacturing of engine bearings.

2. Employees

a) Approximately 100 white-collar and 450 blue-collar workers.
b) Accountants, engineers, production workers, quality inspectors, machine operators, electricians, clerical, maintenance and administrative personnel.

3. Parking Facilities

a) All employees travel to work in vehicles that are parked at the industrial site.
b) Separate parking lot for white-collar and blue-collar workers, with one entrance/exit point per lot.

4. Formal Safety Belt Policy

(none)

B. Description of Safety Belt Program

1. Educational Components

(none)

2. Disincentives

(none)

3. Incentives (promotion of rewards)

a) The incentive flyer (see Appendix C) described the reward program to promote safety belt use.
b) Drivers entering the parking lots were prompted to stop in order to receive an incentive flyer; practically every vehicle stopped at least once to receive a flyer.

4. Individual Rewards

a) Vehicles were prompted to stop while entering the two parking lots during morning arrival of the day shift.
b) Drivers in stopped vehicles were handed an incentive flyer which prompted seat belt use and described a "combination game" in which certain combinations of the symbol printed on each flyer could be exchanged for specified prizes.
c) Drivers wearing a lap and/or shoulder belt received flyers with a valid contest symbol.
d) Drivers not wearing a lap and/or shoulder belt were given flyers without a valid contest symbol. A slip of paper stapled to these flyers read, "NEXT TIME WEAR YOUR SEAT BELT AND RECEIVE A CHANCE TO WIN A VALUABLE PRIZE."
e) The backs of the incentive flyers displayed the logos of local merchants who contributed contest prizes.

C. Impact of Safety Belt Program

1. Monitoring Procedure

a) Shoulder belt usage recorded by two observers while vehicles entered and exited the white-collar and blue-collar parking lots during morning arrival and afternoon departure of the day shift.
b) The observers stood at the gate wearing orange safety jackets and holding clipboards, and thus were quite obtrusive.

2. Pre-Treatment Belt Use

a) Employees were informed of the daily safety belt checks on posters displayed on two employee bulletin boards, one in the area for the blue-collar employees and the other near the exit/entrance door for white-collar workers.
b) For 24 consecutive observation days, mean usage was 3.4% for blue-collar workers and 17.4% for white-collar workers.
c) Daily usage rates were essentially similar during morning arrival and afternoon departure; for blue-collar workers mean usage was 2.9% in a.m. and 3.9% in p.m., and for white-collar workers average usage was 18.0% in a.m. and 16.9% in p.m.

3. Post-Treatment Belt Use

a) For 19 observation days during the reward period, mean usage for blue-collar workers was 5.5% in a.m. and 4.1% in p.m., and mean usage for white-collar workers was 50.6% in a.m. and 32.0% in p.m.
b) For 24 observation days immediately following the reward period, mean usage for blue-collar workers was 7.5% in a.m. and 4.8% in p.m., and mean usage for white-collar workers was 27.6% in a.m. and 23.9% in p.m.

D. Program Benefits

1. For white-collar workers mean shoulder belt usage increased more than twofold as a result of the incentive program; but incentives had minimal impact on blue-collar workers.

2. White-collar workers almost doubled their usage in the afternoon, when rewards were never distributed. This demonstrates generalization of the treatment effect.

3. White-collar workers continued a usage level substantially higher than pre-treatment levels for several weeks after the reward program had been withdrawn. This demonstrates maintenance of treatment effects.

E. Direct Costs

1. 17 employees handed in winning combination flyers to receive prizes valued at a total of $225 (41 cents per employee).

2. 14 of the prizes were meals for two at local restaurants.

3. Almost half of the prizes were donated by community merchants, whose logos were displayed on the back of the incentive flyers.

F. Evidence of Management Support

1. The program was conducted as a research project by behavioral scientists, and was supported by grants from the U.S. Department of Transportation and General Motors Research Corporation.

2. The management has cooperated fully with this and other research endeavors to determine optimal strategies for promoting safety belt use.

Case 8

Industry
Exxon Company, USA
Baton Rouge Refinery
P.O. Box 551
Baton Rouge, LA 70821

Contact Person
Joseph H. Dilmon
Refinery Safety Advisor
Baton Rouge Refinery
Exxon Company, USA
(504) 359-8623

A. Description of Industry

1. Service

-Refining petroleum (gasoline, jet fuel, lubrication oil, etc.)

2. Employees

a) Approximately 950 white-collar and 1700 blue-collar workers.
b) Engineers, administrators, production workers, machinists, pipefitters, accountants, clerical and maintenance staff.

3. Parking Facilities

a) Four entrance/exit gates into industrial complex.
b) Employees travel to work in vehicles that are parked within the industrial complex.

4. Formal Safety Belt Policy

-The Safety Handbook for the refinery states, "Use the seat belts in all motor vehicles."

B. Description of Safety Belt Program

1. Educational Components

a) A special meeting was held for all employees (March to May, 1982) which included:

1) short lecture on value and effectiveness of safety belts.
2) 17 minute videotape of employee testimonials, medical doctor interviews, statements from police officers, national and local statistics, and crash test footage.
3) question and answer period.

b) 25 to 125 employees attended each of these meetings.
c) Each attendant at these meetings received a pamphlet on the value of safety belts, a bumper sticker, and a pair of special coffee mugs with the safety belt slogan "DON'T SIT ON IT... WEAR IT!"
d) A defensive driving pamphlet was mailed to all employees.

2. Disincentives

(none)

3. Incentives (promotion of rewards)

(none)

4. Individual Rewards

-Over a two-day period, all employees wearing safety belts were given an automobile trash bag and a watch band calendar at the four entrance/exit gates to the complex.

C. Impact of Safety Belt Program

1. Monitoring Procedure

-At least two observers recorded the wearing of shoulder and/or lap belts at the four entrance/exit gates, from 5 a.m. to 8 a.m. (during day shift arrival and night shift departure) and from 4 p.m. to 6 p.m. (during day shift departure and night shift arrival).

2. Pre-Treatment Belt Use

a) 23% mean usage over three days across the four entrance/exit gates.
b) Data recorders were as unobtrusive as possible; cars were not stopped for the observations.

3. Post-Treatment Belt Use

a) 49% mean usage over two days across the four entrance/exit gates, immediately after the program.
b) Data observers were obtrusive since they were distributing rewards. Cars were stopped for the observations, but employees had not been pre-warned of the seat belt check.
c) Four months after the program unobtrusive observers recorded an average of 39.6% belt usage of vehicle occupants across the four entrance/exit gates on one day.

D. Program Benefits

-More than a doubling of safety belt use after the safety program.

E. Direct Costs

-Approximately $3000 for promotional materials (including the special mugs) and the rewards ($1.13 per employee).

F. Evidence of Management Support

1. The program was developed, managed, evaluated, and funded by the corporation.

2. Since the program was initiated, the corporation has obtained a "safety belt convincer" for demonstrations at picnics, open-houses, and safety meetings.

3. A second version of the special in-house videotape to promote safety belt use is currently being developed.

4. Attempts are underway to show both tapes on local television.

G. Testimonial

-Mary Anne Dorman, an employee at the Exxon refinery, and her four month old were hit from behind by a Toyota traveling at 45 mph. The attending officer indicated that Ms. Dorman's son would have been killed or severely injured had he not been buckled in his child protection seat. Ms. Dorman was buckled and therefore was not injured, and did not lose a day of work.

Ms. Dorman reported that she "hadn't been in the habit of wearing" her safety belt before the special safety belt program, and now has "rarely been in a car without having a seat belt on." She also insists that all occupants in her car wear a safety belt. Ms. Dorman wrote, "Thanks to the refinery's seat belt promotional program, I still have my son two months later and both of us are healthy."

Case 9

Industry
Teletype Corporation
8000 Interstate #30
Little Rock, AR 72209

Contact Person
Sandy Richardson
Arkansas Highway
Safety Program
Little Rock, AR 72201
(501) 371-1101

A. Description of Industry

1. Service

-Manufacturing of telecommunication equipment and parts.

2. Employees

a) 414 white-collar and 1,167 blue-collar workers.
b) Technical professionals, machine shop technicians, assemblers, maintenance and clerical staffs, administrators, medical and security personnel.

3. Parking Facilities

a) One parking lot with four entrance/exit gates for all employees.
b) No commercial transportation.

4. Formal Safety Belt Policy

a) All occupants of vehicles on company business are expected to wear safety belts.
b) Signs in company-owned vehicles read, "Caution Wear Safety Belts."

B. Description of Safety Belt Program

1. Educational Components

a) 75 employees rode the "safety belt convincer" at an employee kick-off picnic.
b) An awareness session for all employees included: two film presentations (one on child protection seats and the other on the appropriate use and effectiveness of safety belts), a demonstration of the "safety belt convincer," and distribution of flyer handouts on the importance of safety belt use.

2. Disincentives

(none)

3. Incentives (promotion of rewards)

a) Announcement at each of the awareness sessions that rewards

would be distributed to belt wearers.
b) Announced in the employee newsletter that rewards would be distributed to belt wearers.
c) Neither announcement specified the reward nor gave dates of the distribution.

4. Individual Rewards

a) Cars were stopped at the parking lot exit gates and vehicle occupants wearing safety belts were given coupons for a "McDonald's Quarter Pounder with Cheese."
b) Local police in uniform stopped the vehicles and distributed the coupons.
c) About 39% of the vehicle occupants received a coupon.

C. Impact of Safety Belt Program

1. Monitoring Procedure

a) Shoulder belt usage of driver and passenger was recorded at four parking lot exits for two work shifts.
b) The observations were unannounced, but observers wore obtrusive orange vests and held clipboards.

2. Pre-Treatment Belt Use

a) 11.6% mean usage of drivers across four parking lot exits and over three observations days.
b) 5 to 6% mean usage for blue-collar workers, and 19% mean usage for white-collar workers.

3. Post-Treatment Belt Use

a) 25.8% mean usage of drivers across four parking lot exits and over two observation days.
b) 15 to 20% mean usage for blue-collar workers, and 36% mean usage for white-collar workers.
c) One month after a second treatment period (during which 1300 McDonald's coupons were given to belt wearers and the movies, "Dice in a Box" and "Children and Infants and Car Crashes" were presented company-wide) mean belt use over two days was 38% for blue-collar workers and 51% for white-collar workers.

D. Program Benefits

-More than a doubling of pre-treatment belt use after the incentive program.

E. Direct Costs

-Approximately $500 for incentive coupons, all donated by McDonald's (32 cents per employee).

F. Evidence of Management Support

1. Members of management and union officials were present at each gate when rewards were distributed.

2. Company will provide incentives for subsequent reward strategies.

G. Testimonials

1. R.W. Gasper had his seat belt repaired as a result of the educational and incentive program and wears it "faithfully."
   In a letter to Ms. Sandy Richardson of the Arkansas Highway Safety Program (August 16, 1982) he wrote: "The program that was put on by your department convinced me of the need to have my seat belt fixed and, more importantly, to wear it."

2. On June 19th at 12:45 a.m. Johnnie Ware lost control of her car on the way home from her second shift duty at Teletype. She "was very tired after working eight hours and dropped off to sleep for a few seconds." As a result, her mint-condition, 1980 model sedan slammed into the ditch along the right shoulder, spun about, crossed the road and plowed into an embankment on the other side. (See the flyer on the next page which was distributed throughout the plant.)
   In Ms. Ware's words, "The only injury I received was a very badly bruised left shoulder where the seat belts come across to buckle, and I did not miss any work from this accident. My car was completely totalled. The impact having knocked the motor up in the seat and there wasn't hardly anything that could be salvaged. I give credit to the seat belt for having saved my life."

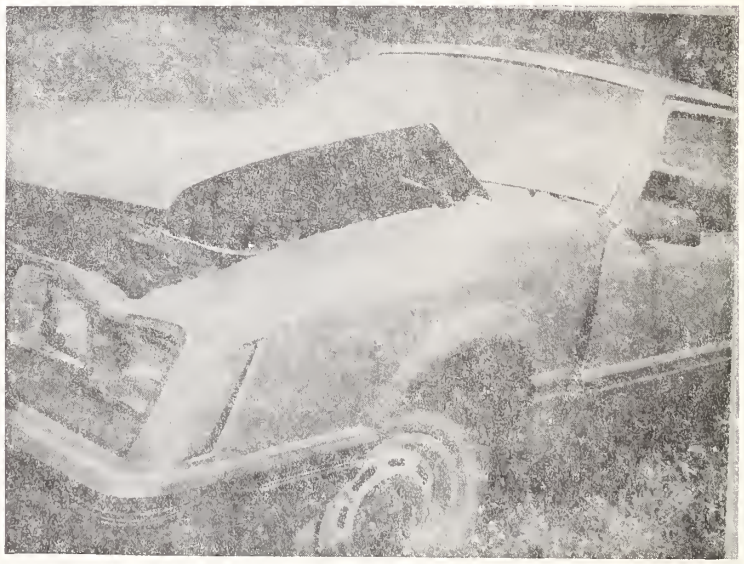
3. On July 12, 1982, Ms. Bonnie P. Bright, her two sons, and her husband's aunt escaped serious injury when another car failed to yield as Ms. Bright turned on to Interstate #30. As stated in the flyer distributed throughout the plant (see page 59), "The collision damaged the auto exterior like a cannon ball at close range, but inside, where Bonnie's passengers were strapped in, there was room to live, and no one sustained major injuries. The investigating officer credited the use of seat belts for saving their lives."
   Ms. Bright had not started wearing a safety belt until after the education and incentive program at Teletype. After that program she began insisting that her two sons buckle up. In her own words, "I thank the people from Teletype for caring enough about their employees to have a seat belt program."

4. J. G. Bonner, Department Chief of Services Engineering, summarized the beneficial effects of their safety belt program with this statement in a letter to Sandy Richardson, "Two employees of the Teletype Corporation and three relatives of an employee were saved from severe injury or death in autos which were declared 'total losses.' In each of the two accidents, the driver credited their determination to use seat belts to the campaign."

SeatBelt Safety Bulletin

MONITOR EMPLOYEE "TOTALS" MUSTANG AT 45 MPH – WALKS AWAY

johnnie b. ware in wrecked auto



details of destruction

home for weekend from niteshift

Saturday morning, June 19th was only 45 minutes old when Johnnie Ware, 4271-1, on her way home for the weekend after a tour of duty on the second shift, lost control of her car on Hiway 10, nine miles from her home at Perryville.

The mint-condition, 1980 model sedan slammed into the ditch along the right shoulder, spun about, crossed the road and plowed into an embankment on the other side, now pointing back toward Little Rock.

little to salvage

In seconds, a valuable machine was mangled into trash. Every member of the frame was bent, the doors flew open and warped, and Johnnie's shoes mysteriously flew from her feet.

SAVED BY THE BELT! room to live

She didn't rocket out of the ripped-open door or through the windshield. She stayed (held by her lap and shoulder belts) in her car seat where there was ROOM TO LIVE. Johnnie says she is, "Grateful to God" for being able to walk away from that awful destruction with nothing worse than a bruised shoulder. She had not been a regular seat-belt user, but the "convincer" demonstration, and the Seat Belt Campaign of the Plant Safety Committee started her on this life-saving habit just a few days before her accident.

"seatbeltburger" premiums

seatbelt "convincer" demonstration

Johnnie is happy, smiling, <u>living</u> proof that seatbelts save lives. Please, during this vacation trip and <u>always</u>, won't you "buckle up?"

Teletype Corporation, Little Rock

July 26 1982

Seat Belt Safety Bulletin Issue 2

KEYSWITCH EMPLOYEE INSISTS "BUCKLE UP" SAVES 4 LIVES

awaiting approval for return to work

Bonnie P. Bright in Medical

Dodge COLT "totalled"

July 12, 1982 started out as just another day of vacation for Bonnie P. Bright (4273-1), her two sons, and her husband's aunt, but in just a few hours her good judgement would save her life and the lives of her three passengers.

"Buckle up", Bonnie told her boys as they left home on an errand. She had been impressed by the five mph "crash" demonstration on the Company parking lot and was trying to develop the seat belt habit.

"Oh Mom, do we all have to wear seat belts?" Bonnie's adult passenger quickly set a good example for the boys by buckling up.

Moments later a driver on the access road allegedly failed to yield as Bonnie turned onto Interstate #30. The collision damaged the auto exterior like a cannon ball at close range, but inside, where Bonnie's passengers were strapped in, there was room to live, and no one sustained major injuries. The investigating officer credited the use of seat belts for their lives.

Interior —Room To Live **Exterior — Demolished**

Bonnie was not a regular seat belt user before the Teletype Corporation campaign, but she is now and always will be. Will you join her in a crusade for life?

Case 10

Industry	Contact Person
Society of Automotive Engineers, Inc. 400 Commonwealth Ave. Warrendale, PA 15096	John M. Roop, Director Field Relations Group SAE, Inc. (412) 776-4841

A. Description of Industry

1. Service

a) Non-profit educational and scientific organization.
b) Development of technical information and the promulgation of engineering standards concerned with the broad field of mobility technology.

2. Employees

a) 149 white-collar workers.
b) Engineers, administrators, editors, marketing experts, computer programmers, and clerical staff.

3. Parking Facilities

a) Two parking lots for all employees with one entrance/exit gate.
b) No commercial transportation.

4. Formal Safety Belt Policy

-As of May 27, 1982 all employees traveling on SAE business in company or rental cars must wear safety belts.

B. Description of Safety Belt Program

1. Educational Components

-An awareness session occurred on first morning that rewards were given to belt users. The one and one half hour session included:

a) Statement of company safety belt policy by Executive Vice-President.
b) Two films that demonstrated appropriate use and effectiveness of safety belts.
c) Testimonies of safety belt effectiveness by Police Chief.
d) Display of photos from local accidents.
e) Distribution of promotional brochures, pamphlets, and bumper stickers.

2. Disincentives

(none)

3. Incentives (promotion of rewards)

-No prior warning of the reward strategy.

4. Individual Rewards

-A coupon for a free lunch in the SAE dining room was given to each belt wearer when employees arrived for work on two mornings, one-month apart.

C. Impact of Safety Belt Program

1. Monitoring Procedure

a) Cars stopped at entrance to employee parking lots and were checked for shoulder and lap belt usage when employees arrived for work.
b) Two observers carried out the audit.

2. Pre-Treatment Belt Use

a) 19.9% usage on the single belt check.
b) 42% usage for males and 13% for females.

3. Post-Treatment Belt Use

a) 52% usage on the surprise check.
b) 53.3% usage for males and 45% for females.

D. Program Benefits

-More than a doubling of pre-treatment belt usage after program.

E. Direct Costs

-Approximately $150 for the meals ($1 per employee).

F. Evidence of Management Support

1. The program was developed, managed, and evaluated by SAE staff.

2. All program costs were covered by SAE, Inc.

G. Testimonials

1. A drunk driver hit the vehicle driven by Debbie Bisch, an SAE employee. Ms. Bisch was not wearing her safety belt and suffered painful injuries: a bleeding nose and forehead, and a severely bruised chest and knee. She testified, "The policeman told me later that night that since I was not traveling at a fast rate of speed, had I been buckled-up, I probably would not have hit the windshield at all... I have recovered from the accident, but I still have the scars on my forehead." Ms. Bisch uses safety belts consistently now.

2. Marge Lubbert, an SAE employee reported the following incident, "After the seat belt session here at SAE, I was converted and always fastened my seat belt when driving. However, I had not yet developed the habit of fastening my seat belt when I ride with someone else."

   During the last week of June, 1982, Ms. Lubbert was riding in the back seat of a vehicle driven by Tony Smail, a fellow employee, when "...the traffic in front of us stopped unexpectedly and we hit the car in front of us. I was riding in the back seat with my seat belt unfastened. I hit my head and ended up with a terrible headache. Needless to say, I now buckle up when riding with others."

3. In June, 1982, the vehicle driven by Melissa Vogel, an SAE employee, was hit from behind, and escaped serious injuries because she was buckled. In the words of Ms. Vogel, "... I felt and heard a terrific crunch behind me and saw my windshield coming at me. Actually, I was flying toward it at a frightening speed. In a split second of thought, I hoped my seat belt would work as Herb Kaufman had assured us it would. I can still feel the lurch as the 'inertia type' reel caught and literally threw me back into my seat ... Also, after seeing films and hearing accounts of babies becoming 'missiles' in an accident or even in a quick stop to avoid an accident, we bought a car seat for our son and don't start the car until he is strapped into it. I believe in setting a good example for him to follow and he is now at an age where he is aware of and mimics everything mommy and daddy do, including putting on his 'seat belt' in his car seat."

Case 11

Industry	Contact Person
Southwestern Bell Telephone Company of Arkansas 1111 West Capitol Room 1017 P.O. Box 1611 Little Rock, AR 72203	Helen Graham Customer Services Staff Supervisor Southwestern Bell Telephone Company of Arkansas (501) 373-5377

A. Description of Industry

1. Service

-Telecommunications.

2. Employees

a) Approximately 5000 workers.
b) Customer service staff, telephone operators, technicians, installers, sales, collectors, clerical, computer attendants, management and supervisory staff.

3. Parking Facilities

a) No concentrated parking location for employees.
b) Approximately 500 different work locations geographically located throughout the State of Arkansas.

4. Formal Safety Belt Policy

-Company policy states that when on company business, whether in a company or personal vehicle, employees will wear seat belts.

B. Description of Safety Belt Program

1. Educational Components

-Flyers and letters mailed regularly to all employees which emphasize the value of safety belts.

2. Disincentives

(none)

3. Incentives (promotion of rewards)

-Safety belt pledge program promoted in:

a) Two mailouts to employee's residence.
b) Three articles in the employee newspaper.
c) Personal letter and flyer on the effectiveness of safety belts to employee's work address.

4. Individual Rewards

   a) Employees and family members signed cards which pledged their safety belt wearing for three months; each returned pledge card was an entry in a monthly raffle drawing.
   b) After checking for duplicates, 13 winning names were randomly drawn each month (i.e., June, July, August, 1982). [Only four duplications were found.]
   c) Winners announced in the employee newspaper, Telephone Times.
   d) The prizes each month were: one $100 gift certificate, two $50 gift certificates, and ten health booklets valued at $5 each.

C. Impact of Safety Belt Program

1. More than 1200 pledge cards were received.

2. Direct observation of belt usage was impossible but anecdotal evidence and testimonials have convinced management of the program's cost effectiveness.

D. Program Benefits

1. Employees became aware of the company's concern that they buckle up.

2. Anecdotes and testimonials of the program's acceptability and beneficial impact have convinced management of the need for future programs.

E. Direct Costs

-$250 per month for raffle prizes (60 cents per employee for the year).

F. Evidence of Management Support

1. Management supported the program completely and will continue such support.

2. Costs paid from safety staff budget.

G. Testimonials

1. Leland Riddell, a Staff Specialist wrote: "Seat belts are so important! The company cannot force employees to buckle up off the job, but they can offer incentives which provide enough motivation to get employees to buckle up."

2. Barbara Hickingbottom, a Senior Stenographer, wrote: "I heartily endorse this program. I was recently involved in an off-the-job accident when a 16 wheeler and I collided, and I escaped without a scratch because I was wearing my seat belt. I therefore had no lost work time or medical expense, which saved the company and me more than dollars."

3. Paula Johnson, District Staff Manager, testified as follows: "At one time I always buckled up but had gotten out of the habit. I took advantage of the seat belt pledge and have developed the habit of buckling up again."

4. Natalie Howton (age 12), the daughter of Staff Manager Jane Howton, was a prize winner in the July drawing and stated, "I buckle up every time."

Case 12

Industry
Arkansas Electric Cooperatives
8000 Scott Hamilton
Little Rock, AR 72209

Contact Person
Sandy Richardson
Arkansas Highway
Safety Program
Little Rock, AR 72201
(501) 371-1101

A. Description of Industry

1. Service

a) Generate and transmit electricity.
b) Sell line hardware and related products.
c) Provide administrative services.

2. Employees

a) Approximately 40 white-collar and 260 blue-collar workers.
b) Engineers, construction workers, research and development personnel, maintenance and clerical staff.

3. Parking Facilities

-One parking lot for all employees with two entrance/exit gates.

4. Formal Safety Belt Policy

(none)

B. Description of Safety Belt Program

1. Educational Components

(none)

2. Disincentives

(none)

3. Incentives

-No prior warning of the reward strategy for belt wearing.

4. Individual Rewards

a) On one morning $5 was given to every vehicle occupant wearing a safety belt when entering the parking lot.
b) Only eight employees earned the reward.

C. Impact of Safety Belt Program

1. Monitoring Procedure

-Shoulder belt usage recorded unobtrusively at parking lot when employees arrived for work.

2. Pre-Treatment Belt Use

-6.8% mean usage across two observation days.

3. Post-Treatment Belt Use

-19% mean usage for one observation session five days after the $5 rewards were distributed.

D. Program Benefits

1. Program is in early stages of development and evaluation, but the few observations indicated a tripling of belt usage.

2. Much talk has occurred among employees about safety belt usage and incentives, even one month after the reward day. Future incentive approaches will likely receive additional support.

3. Management was impressed with the outcome and has shown increased willingness to support a more comprehensive incentive program.

E. Direct Costs

-$40 for cash awards (13 cents per employee).

F. Evidence of Management Support

-Management paid reward costs and will work with contact person to develop a more comprehensive and expensive program.

G. Testimonial

-Gill Sills, Manager of Job Training and Safety, wrote: "The (incentive) program created an instant awareness that we, as a company, care about the individual employee. This awareness carried over into their work habits as they became conscious of acts used in performing their tasks. They began to take a look at their procedures and habits as they relate to safety... The attitude always seems to be positive as a result of our incentive program. The fact that we are rewarding rather than punishing or reprimanding is in itself a positive factor. It helps prove that you can catch more flies with honey than with vinegar."

Appendix A

A flyer to increase awareness regarding the value of wearing a safety belt.

FACTS ABOUT SEAT BELTS

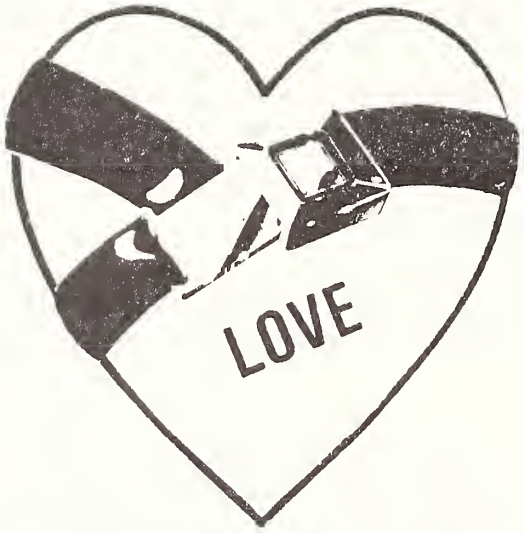
PLEASE consider these reasons for **always** buckling your **seat belt**:

* Seat belts cut your chances of being killed or seriously maimed in the event of a crash by *more than 60%.*
* On any single vehicular trip the chance of an accident is very low; **but** the possibility of a serious accident on one of the *many* trips in your lifetime is better than 50%. (What percent of your friends have *never* been in an accident? Ask around ... the percentage will be low.)
* Three out of four crashes happen within 25 miles of home.
* A common cause of death and injury to **children** in automobiles is being crushed by adults who are **not** wearing seat belts. In fact, one out of four serious injuries to passengers is caused by occupants being thrown into each other.
* Drivers wearing seat belts have *more* control over their car in emergency situations and are therefore *more* likely to *avoid* an accident.
* Children mimic their parents, so setting a good example by *always* wearing a **seat belt** could encourage the "seat belt habit" for a child and possibly save that child from serious injury or death in a crash.
* So it is really **healthy and considerate** to get into the **habit** of *always wearing* your **seat belt.**

If not for yourself ... **for someone you love!**

PLEASE START TODAY

If not for yourself
for someone you



BUCKLE UP

Appendix B

The "two-for-one" coupon donated by McDonald's to support a corporate incentive program in Little Rock, Arkansas.

Appendix C

The incentive flyer which was given to employees wearing their seat belts while entering and exiting industrial plants in southwest Virginia. Vehicle occupants not wearing a safety belt were handed a similar flyer except that the contest symbol in the center of the seat belt was marked "VOID," and a slip of paper was stapled across the center of the flyer with the message, "NEXT TIME WEAR YOUR SEAT BELT AND RECEIVE A CHANCE TO WIN A VALUABLE PRIZE."

The Best Combination is you . . .
And your Seatbelt!

Play Combination

CONTEST RULES

1. As you collect these fliers, you may become eligible to win a valuable prize.
2. See the possible combinations of winning symbols on this page.
3. There is no limit to the number of times you can win.
4. You may present your winning combination at 5100 Derring Hall and claim your prize.

Sample List of "Hands" with Corresponding Prizes

1) Three of one symbol . . .
   Surprize package worth at least $1.00

2) Four of one symbol . . .
   Prize valued between $2.00 and $4.00
   (e.g.,a free sub, a plant, a tee shirt)

3) Three of one symbol, two of another . . .
   Prize valued between $5.00 and $10.00
   (e.g.,a gift certificate from Harvey's Warehouse, Mish-Mish, Blue Ridge Mountain Company, Woolco)

4) One of each symbol . . .
   Dinner for two at a local restaurant.

5) Five of one kind . . .
   Prize valued over $15.00
   (e.g.,an oil change and lube job, a $25.00 gift certificate from the Possibility)

These Blacksburg Merchants Say:
if not for yourself, for someone you Love . . . . Buckle your Seatbelt!

LENNY'S PIZZA & DELI
107 Ellet Road, 552-5267
We deliver

Western Sizzlin

HARBOR'S LANDING
Fish Camps
"calabash style"

Blue Ridge Mountaineering Company
BLACKSBURG, VA.
703-552-9012

Consider... The Possibility
Continental French Dining
622 N. Main St.
Blacksburg, Va.
(703) 951-0295

Harvey's Warehouse

Your best buy is at **TG & Y**
Blacksburg Gables Shopping Center

HALLMARK CARDS
University Mall

BONANZA

MAXWELL'S

LITTLE CAESARS PIZZA
Quality Crafted Pizza
Home delivery in Blacksburg

Daddy's Money

SUB SHOPPE
217 College Ave.

MACADO'S

215 North Main Street
Blacksburg, Virginia

Azteca Foods
Full Selection Available At
Bandido's Cantina

Woolco
We want to be your favorite store
University Mall

McDonald's

PRINTERS INK
University Mall

TOM HILLIARD
Manager

Firestone

Firestone Stores
Gables S C
Blacksburg, Virginia 24060
Phone 703 552 2561

Shirt Tales
Blacksburg, Va

GABLES PHARMACY, INC.
"FILLING YOUR NEEDS IS OUR PRESCRIPTION"
GABLES SHOPPING CENTER

BACK PORCH
FAMILY BARBECUE RESTAURANT
304/255-5139
304/253-3394

VICKERS SWITCH
Est. 1979
MODEST PRICES
RESTAURANT & LOUNGE
AT THE Holiday Inn BLACKSBURG, VA.

mish-mish

Appendix D

Handouts used to play bingo with vehicle occupants in order to increase safety belt use. All vehicle occupants received the bingo card when stopped initially. For subsequent safety belt checks, a bingo number was given to those vehicle occupants who were buckled up.

THESE BLACKSBURG MERCHANTS

hope you:

Buckle Every Living Thing Securely!

B	E	L	T	S
1	8	1	3	6
3	2	3	3	9
2	0	4	0	5
8	9	2	1	9
7	6	1	6	4

RULES FOR PLAYING "BELTS BINGO"

1. Collect and match the pairs of numbers and letters for a particular column, row, or diagonal.

2. No limit to the number of times you may win!

3. Contestants may call 961-7310 to claim their prizes or stop by 5100 Derring Hall.

If not for yourself
for someone you

BUCKLE UP

these Blacksburg Merchants Say:

BUCKLE YOUR SEATBELT AND WIN!!

MATCH YOUR **BELTS** LETTER AND NUMBER

BELTS BINGO

Appendix E

Flyer used to announce a direct but delayed reward strategy. A lottery ticket with a license plate number was made for each vehicle occupant observed wearing a shoulder or lap belt. One winning ticket was drawn weekly for a cash prize, the amount of cash equaling the average percentage of shoulder belt usage during the prior week.

SEAT BELT SWEEPSTAKES

WHEN: Starting next Monday (August 23).

WHERE: In the parking lots of this plant.

HOW DOES IT WORK?

- Researchers from Virginia Tech will be observing seat belt usage in the hourly and salary parking lots.

- Every time you are observed wearing a seat belt, the license number of the car in which you're riding will be entered in a raffle -- the more you wear your seat belt, the more chances you have to win!

- Daily usage and average usage over the work week will be calculated for hourly and salary workers and posted at the plant.

- On the Monday following the week of observation, we'll draw a winning license plate -- that person will receive $1 for every 1% usage (based on the weekly average) in his/her work group so, for example, if an hourly person wins, and the hourly average was 30%, that person will win $30. The cash would be $90, of course, if average seat belt usage were 90% for the prior week.

- The more people in your group who wear seat belts, the bigger the prize so please START BUCKLING TODAY!!

Appendix F

Articles in the plant newspaper which advertized the prize-a-day incentive program at Radford Army Ammunition Plant. This particular reward tactic influenced a threefold increase in safety belt usage (i.e., from a pre-program usage rate of 6.7% to a mean rate of 23.1% during the program) which resulted in substantially more safety belt wearing long after the prize-a-day program was terminated (e.g., three months after the program ended mean belt usage was greater than 15%).

POWDER PRESS

PUBLISHED FOR EMPLOYEES OF RADFORD ARMY AMMUNITION PLANT

W. A. Shaw, Jr., Editor — 639-8754
Betty C. Lester, Associate Editor — 639-8384

PUBLISHED BI-WEEKLY ON FRIDAY BY HERCULES INCORPORATED

Prizes for Wearing Your Seat Belt

During the period June-August 81, the day-shift employees using Gate 4 received chances to win dinners for two at local restaurants for wearing their seat belts when leaving work. Now day-shift employees using the main gate can win prizes for wearing their seat belts when exiting through this gate after work. Winners will have the choice of a dinner for two at a local restaurant or two tickets for an upcoming Virginia Tech basketball game.

Observers will be posted at the main gate from 4:00 to 4:45 p.m. to record seat-belt usage. Each day a driver who is wearing his or her seat belt will be randomly selected as the winner of the day. The license plate of each winner will be posted on the large sign boards located near Bldg. 200; and each subsequent issue of this newspaper will also list the winning license plate numbers. Winners can claim their prize (i.e., their choice of dinners or basketball tickets for two) by contacting the COR Safety office.

This seat-belt contest will begin on Monday, November 30, and will continue daily for as long as employees show interest and it is possible to observe vehicles at the main gate. The contest may be discontinued on some days because of inclement weather. Whenever the observers (in bright orange jackets) can stand outside to record seat-belt usage, a daily winner will be selected randomly from among those who are wearing their seat belt.

So join our effort to promote seat-belt usage. Get into the habit of buckling up for safety, and you may be a winner of valuable prizes.

POWDER PRESS

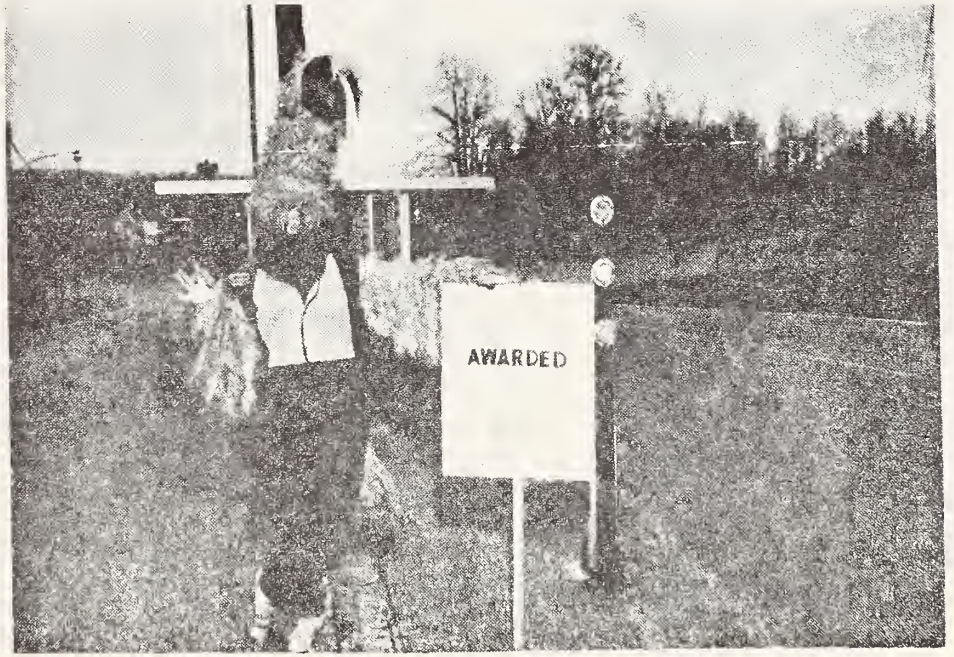
HERCULES

PUBLISHED FOR EMPLOYEES OF RADFORD ARMY AMMUNITION PLANT

An Equal Opportunity Employer

VOL. 37 NO. 8 RADFORD, VIRGINIA DECEMBER 4, 1981

Hokie Mascot Kicks off Seat Belt Drive



The Virginia Tech Hokie Mascot was on hand to kick off the Seat Belt Incentive Program on November 30, 1981. Watch the Wagner board and each issue of the Powder Press for contest winners announcement. Winners may contact the COR Safety Office for their winning prize.

NOTICE - License Nos. NAT511 and ZLE500 are winners in the Seat Belt Incentive Program. Contact COR Safety, Ext. 8705, for your prize.

Appendix G

Flyers which describe the successful incentive program conducted at the General Motors Tech Center, Warren, Michigan. The flyers were distributed to all 6,000 plant employees. This program has practically doubled the high base rate of safety belt use observed at the Tech Center (i.e. from a pre-program average of 36% belt wearers to a cumulative usage mean of 69.2% over three months at the time of this writing).

What: **1982 GM Tech Center Seat Belt Use Incentive Program.**

Why: **GM is concerned about the health and welfare of its employes. Seat belts save lives and reduce serious injuries and not enough GM employes wear them.**

Who: **All regular GM employes, GM per diem employes and college co-op students, housed at the Tech Center, who formally pledge to wear their seat belts are eligible for the sweepstakes.**

How: **Prize drawings will be held if certain overall seat belt usage rates are achieved at the Tech Center.**

Sweepstakes I Details

- Beginning in May, 1982 seat belt use will be monitored anywhere on the GM Tech Center site, including the five entrances/exits to the Tech Center (i.e. tunnel, 12 Mile Rd., Mound Rd. North and South, and Chicago Rd.). Usage may be monitored at anytime during the day.
- A drawing will be held at the end of May if an average seat belt usage rate greater than 50% is achieved.
- The names of all regular GM employes (including RETA employes), GM per diem employes, and college co-op employes, who are housed at the Tech Center (between the railroad tracks and Mound Rd.) during the seat belt use monitoring period and who have completed and returned a signed seat belt use pledge card, will be submitted for the prize drawings.
- Each employe shall sign only one pledge card. Pledge cards for new employes or employes who decide to sign a pledge at a later date must be signed and returned before the drawing to be eligible.
- The top prize for the first drawing will be a new "T" car, ordered with the winner's choice of options. Other assorted prizes (such as wristwatches, travel alarm clocks, etc.) donated by the GM Men's Club will be awarded in addition to the car.
- Assigned company car drivers will not be eligible to win a car, but they will be eligible for the other prizes.
- The following contact persons have been appointed and questions regarding the program may be directed to them.

Research Labs.	Clay Snyder	(5-2790)
Service Section	Charles Hall	(5-0188)
Engineering Staff	Joe Fazio	(5-1413)
Manufacturing Dev.	Ronal Travis	(5-0693)
Design Staff	Patrick DeWaele	(5-2261)
World Truck	Mary Ann Massey	(5-8290)
Environ. Act. Staff	Terry Horne	(2-1080)
MTO	Jean Rosinski	(2-0830)

What: 1982 GM Tech Center Seat Belt Use Incentive Program.

Why: GM is concerned about the health and welfare of its employes. Seat belts save lives and reduce serious injuries and not enough GM employes wear them.

Who: All regular GM employes, GM per diem employes and college co-op students, housed at the Tech Center, who formally pledge to wear their seat belts are eligible for the sweepstakes.

How: Prize drawings will be held if certain overall seat belt usage rates are achieved at the Tech Center.

Sweepstakes II Details

- Between June 3, 1982 and July 15, 1982 seat belt use will be monitored anywhere on the GM Tech Center site, including the five entrances/exits to the Tech Center (i.e. tunnel, 12 Mile Rd., Mound Rd. North and South, and Chicago Rd.). Usage may be monitored at anytime during the day.
- A drawing will be held on July 16, 1982 if an average seat belt usage rate greater than 65% is achieved.
- The names of all regular GM employes (including RETA employes), GM per diem employes, and college co-op employes, who are housed at the Tech Center (between the railroad tracks and Mound Rd.) during the seat belt use monitoring period and who have completed and returned a signed seat belt use pledge card, will be submitted for the prize drawings.
- Each employe shall sign only one pledge card. Any person who submitted a signed pledge card for "Seat Belt Sweepstakes I" is automatically included in "Seat Belt Sweepstakes II". (however, a person cannot win more than one car.) Any person who recived a pledge card but chose not sign and return it, is invited to do so. If he or she no longer has the original pledge card, a new one may be obtained through his or her designated contact person. Pledge cards for new employes or employes who decide to sign a pledge at a later date must be signed and returned before the drawing to be eligible.
- The top prize for the "Sweepstakes II" drawing will be a new "T","X", or "J" car, ordered with the winner's choice of options. Other assorted prizes (such as wristwatches, travel alarm clocks, etc.) donated by the GM Men's Club will be awarded in addition to the car.
- Assigned company car drivers will not be eligible to win a car, but they will be eligible for the other prizes.
- The following contact persons have been appointed and questions regarding the program may be directed to them.

Research Labs.	Clay Snyder	(5-2790)	Design Staff	Patrick DeWaele	(5-2261)
Service Section	Charles Hall	(5-0188)	World Truck	Mary Ann Massey	(5-8290)
Engineering Staff	Joe Fazio	(5-1413)	Environ. Act. Staff	Terry Horne	(2-1080)
Manufacturing Dev.	Ronal Travis	(5-0693)	MTO	Jean Rosinski	(2-0830)

Seat Belt Use Goal:

70%

Drawing On 10-15-82 If Goal Is Met

Top Prize:

Choice Of
"A"
"F"
"J"
"X"
or "T" Car

Contact These People If You Have Questions:

Research Labs.	Clay Snyder	(5-2790)	Design Staff	Patrick DeWaele	(5-2261)
Service Section	Charles Hall	(5-0188)	World Truck	Mary Ann Massey	(5-8290)
Engineering Staff	Joe Fazio	(5-1413)	Environ. Act. Staff	Terry Horne	(2-1080)
Manufacturing Dev.	Ronal Travis	(5-0693)	MTO	Jean Rosinski	(2-0830)

Appendix H

The biweekly employee newspaper at Radford Army Ammunition Plant described the pledge-card raffle, printed the pledge cards, and announced the winners of previous pledge-card drawings. Examples of these newspaper articles, which could be readily adapted for other plants, are given here.

POWDER PRESS

PUBLISHED FOR EMPLOYEES OF RADFORD ARMY AMMUNITION PLANT

W. A. Shaw, Jr., Editor – 639-8754
Betty C. Lester, Associate Editor – 639-8384

PUBLISHED BI-WEEKLY ON FRIDAY BY HERCULES INCORPORATED

ONE ENTRY PER EMPLOYEE: Restricted to RAAP assigned Hercules, COR, RDAISA, and Corps of Engineers personnel

Take the Seat Belt Safety Pledge
and Become Eligible for Valuable Prizes

I (Signature)_____ hereby pledge to wear a safety belt for the next two weeks starting (today's date)_____, whenever traveling in a vehicle with a workable lap or shoulder belt.

This pledge makes me eligible for the raffle next Friday if this card is deposited in one of the raffle boxes at the RAAP pedestrian gates.

During this pledge period I will most often exit RAAP through: (1) the Main Gate, (2) Gate 4, or (3) Gate 10 - (Please circle the appropriate gate alternative).

Below please fill in your badge number and the license plate number of the vehicle you will travel to work in most often during the next two weeks.

Badge No._____License Plate No._____

Printed Name_____

Work Area_____

Immediate Supv._____Supv. Phone_____

Sign up Today

Seat Belt Safety Contest

All of us have been touched by the nationwide media effort to promote the voluntary use of vehicle safety belts. This media blitz is trying to get the point across that if more people would use seat belts, traffic injuries and fatalities would be significantly reduced, and society as a whole as well as individuals would benefit.

Perhaps you are aware that with the cooperation of Hercules Management, researchers from Virginia Tech have been testing the impact of seat belt programs at RAAP. But, did you know that the seat belt programs developed and evaluated at RAAP have served as exemplary models for other industries to follow? It is true! The RAAP programs to promote seat-belt usage have been very successful and are being copied by several other large industries. For example, General Motors Research Laboratories in Warren, Michigan just implemented an incentive plan to motivate seat-belt usage based on procedures tested at RAAP.

Beginning with this issue of the "Powder Press" a new seat belt program has begun at RAAP. This program offers employees at RAAP opportunities to win prizes every two weeks in a special raffle. Employees can enter the current raffle by completing the seat-belt pledge blank as instructed and depositing it in one of the raffle boxes located at the RAAP pedestrian gates, Buildings 200, 450 and 220. Friday (June 11, 1982) three pledges will be randomly selected from the raffle boxes. Winners will be contacted by their supervisor to claim their prize. For this raffle the first prize will be a $50 certificate from a local market; the second prize will be a $30 certificate; and the third prize will be a $20 certificate.

On the success of the initial phase of this program hinges its continued use as an incentive to seat belt use and your chance to win a prize.

We hope that employees will pledge to wear their safety belts, and that such pledging will result in substantial increases in actual seat belt wearing at RAAP.

POWDER PRESS

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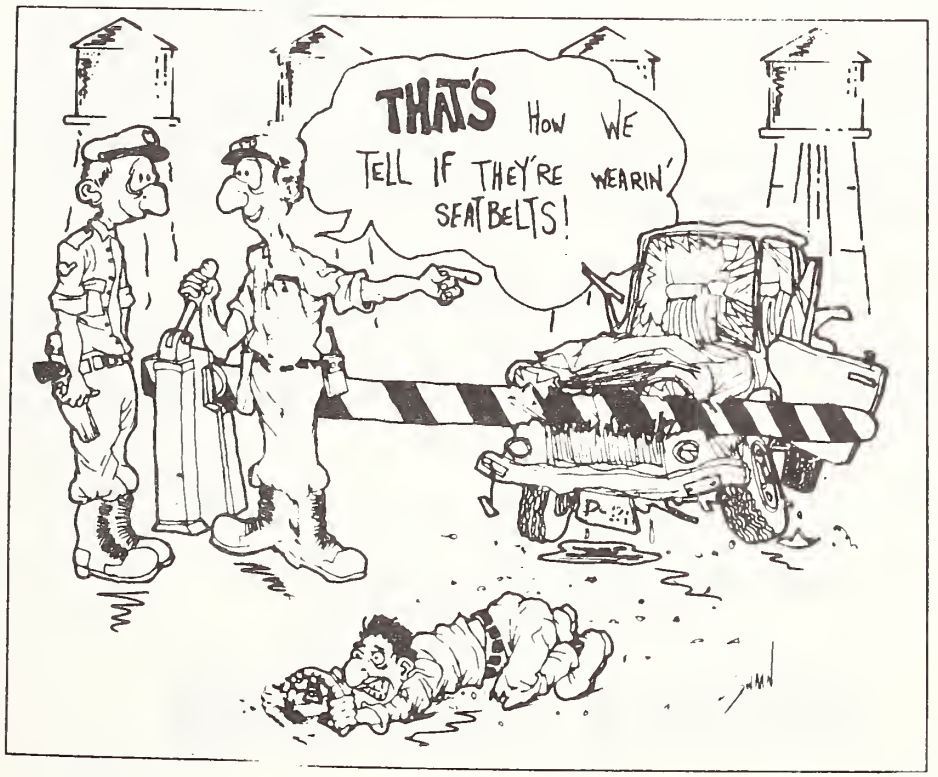

Seat Belt Safety Contest

Three winners in the seatbelt pledge contest have been announced. They are: Howard D. Hubbard of the Fire Dept., $50; Janice Larman of CAMBL, $30; Rufus A. Brock of Layaway Standby, $20. Winners may pick up prizes from their supervisors.

To be eligible for the next prize drawing, a new pledge card must be submitted. Get your entry in early, the drawing will be held June 25.

PLEDGE CARD NO. 2

ONE ENTRY PER EMPLOYEE: Restricted to RAAP assigned Hercules, COR, RDAISA, and Corps of Engineers personnel

Take the Seat Belt Safety Pledge
and Become Eligible for Valuable Prizes

I (Signature) _____ hereby pledge to wear a safety belt for the next two weeks starting (today's date) _____, whenever traveling in a vehicle with a workable lap or shoulder belt.

This pledge makes me eligible for the raffle next Friday if this card is deposited in one of the raffle boxes at the RAAP pedestrian gates.

During this pledge period I will most often exit RAAP through: (1) the Main Gate, (2) Gate 4, or (3) Gate 10 - (Please circle the appropriate gate alternative).

Below please fill in your badge number and the license plate number of the vehicle you will travel to work in most often during the next two weeks.

Badge No. _____ License Plate No. _____

Printed Name _____

Work Area _____

Immediate Supv. _____ Supv. Phone _____

POWDER PRESS

HERCULES

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An Equal Opportunity Employer

VOL. 37 NO. 22 RADFORD, VIRGINIA July 2, 1982

Seat Belt Safety Contest

The three new Seatbelt Pledge Contest Winners are: Marvin E. Murrell, RDAISA, $50; Sue Wurzburger, Industrial Relations, $30; and William F. Morris, CP&S, $20.

Pledge Card No. 3 on Page 4 must be filled out if you wish to be eligible for the next drawing July 9. Pledge to buckle up - even if you don't win a prize you'll still be a winner.

PLEDGE CARD NO. 3

ONE ENTRY PER EMPLOYEE: Restricted to RAAP assigned Hercules, COR, RDAISA, and Corps of Engineers personnel

Take the Seat Belt Safety Pledge
and Become Eligible for Valuable Prizes

I (Signature) _____ hereby pledge to wear a safety belt for the next two weeks starting (today's date) _____, whenever traveling in a vehicle with a workable lap or shoulder belt.

This pledge makes me eligible for the raffle next Friday if this card is deposited in one of the raffle boxes at the RAAP pedestrian gates.

During this pledge period I will most often exit RAAP through: (1) the Main Gate, (2) Gate 4, or (3) Gate 10 - (Please circle the appropriate gate alternative).

Below please fill in your badge number and the license plate number of the vehicle you will travel to work in most often during the next two weeks.

Badge No. _____ License Plate No. _____

Printed Name _____

Work Area _____

Immediate Supv. _____ Supv. Phone _____

POWDER PRESS

HERCULES

PUBLISHED FOR EMPLOYEES OF RADFORD ARMY AMMUNITION PLANT

An Equal Opportunity Employer

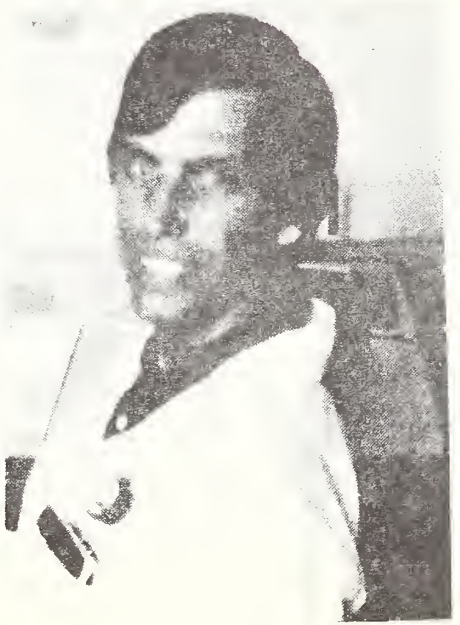
VOL. 37 NO. 23 RADFORD, VIRGINIA July 16, 1982

Contest Winners Announced

Three new winners have been announced in the Seat Belt Pledge Contest. They are: Tim Jamison, Safety Department - $50; Deborah G. Crowder, Acid Area - $30; and Bobby L. Ogle, Security Department - $20. Tim and Debbie are pictured below, Bobby was not available for a picture.

This contest is being conducted by researchers at Virginia Tech and the prizes are donated by Food Town. Pledge Card No. 4 is printed on page 2. Pledge Card No. 4 must be filled out in order to be eligible for the drawing to be held Friday, July 23.

Debbie Crowder



Tim Jamison

PLEDGE CARD NO. 4

ONE ENTRY PER EMPLOYEE: Restricted to RAAP assigned Hercules, COR, RDAISA, and Corps of Engineers personnel.

Take the Seat Belt Safety Pledge
and Become Eligible for Valuable Prizes

I (Signature) _____ hereby pledge to wear a safety belt for the next two weeks starting (today's date) _____, whenever traveling in a vehicle with a workable lap or shoulder belt.

This pledge makes me eligible for the raffle next Friday if this card is deposited in one of the raffle boxes at the RAAP pedestrian gates.

During this pledge period I will most often exit RAAP through: (1) the Main Gate, (2) Gate 4, or (3) Gate 10 - (Please circle the appropriate gate alternative).

Below please fill in your badge number and the license plate number of the vehicle you will travel to work in most often during the next two weeks.

Badge No._____License Plate No._____

Printed Name_____

Work Area_____

Immediate Supv._____Supv. Phone_____

Appendix I

Sample pledge card which can be easily customized for application in a variety of industrial settings. A pledge-card program is necessary when employees' safety belt usage cannot be directly observed, and can be effective in maintaining increased usage levels after a reward program has terminated.

BUCKLE-UP PLEDGE

National Safety Council

Take the Seat Belt Safety Pledge
and Become Eligible for Valuable Prizes

I (Signature) _____ *hereby pledge to wear a safety belt for the next four weeks starting (today's date)* _____, *whenever traveling in a vehicle with a workable lap or shoulder belt.*

Below please fill in the license plate number of the vehicle you will travel to work in most during the next month.

Printed Name _____

License Plate No. _____