



SURVIVAL FACTORS ATTACHMENT

National Collegiate Athletic Association

Safety in Student Transportation:

A Resource Guide for Colleges and Universities

Andrews, TX

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SAFETY in Student Transportation:

A Resource Guide
for Colleges and
Universities

A Joint Project of the
American Council on Education,
National Collegiate Athletic Association,
and United Educators Insurance



American Council on Education
The Unifying Voice for Higher Education



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FOREWORD

The modern American university is a grand institution. It deepens students' perspectives and enriches their lives. It promotes the greater social good by advancing knowledge and contributing to an informed citizenry.

With each passing year, more and more learning takes place outside the classroom. American college and university students travel for academic field trips, community service, athletic events, clubs, and many other purposes. I have no doubt that education is enhanced through such activities, but as we benefit from increased mobility, we must refocus on safety.

We are all painfully aware of travel-related tragedies that have affected students and staff, but we must remember that millions of miles are traveled safely each year under the supervision of individuals who deeply care about the welfare of those involved. This report draws from both the successes and failures to increase the pool of information about travel safety.

I commend this report to your close attention and challenge you to implement at least one idea you find here. Working together, we can redouble our efforts to ensure the safest possible environment for our nation's students.

Myles Brand
President, National Collegiate Athletic Association
Indianapolis, Indiana

PREFACE

This report is designed for anyone who cares about the safe transportation of college and university students. The impetus for the report was a tragic accident and the federal government's response to that accident. On January 27, 2001, a charter plane carrying members of the Oklahoma State University basketball team and others associated with the team crashed in Colorado, killing the two pilots and 10 passengers. Subsequently, the National Transportation Safety Board (NTSB) investigated the accident, and Oklahoma State revised its travel policies. Impressed with the changes that Oklahoma State made, the NTSB asked the American Council on Education and the National Collegiate Athletic Association, among other groups, to direct the attention of the higher education community to safe travel by athletic teams. United Educators Insurance also became involved, and the scope of the project grew beyond team travel to travel by college and university students on all types of school-related trips. The primary focus is on domestic trips, although many of the same principles apply to international travel.

This report does not seek to identify any particular path as the right one for all institutions. It offers many different examples of programs, policies, and practices that institutions have developed to fit the circumstances of their own travel. Many variables play into the mix. A great public transportation system may operate near a campus.

Student groups may be few in number and closely supervised. Students may routinely drive their own vehicles, rather than borrow vehicles from a central fleet. Student activity fees may be the sole (and lean) funding source for student activity travel. With such variables in mind, each institution, exercising its administrative responsibility, must design its own approach to safe student travel. Please view this report as one of many tools to aid that effort.

Some prefatory observations about college students also are in order. In most states, 18-year-olds are legal adults, and the law expects them to act prudently. Many bring cars to campus and, like most drivers, minimize the risks of road travel. Some students, in their short time behind the wheel, have earned unenviable records for speeding, driving under the influence, and other forms of recklessness. They may have had their licenses suspended or revoked. A few students, including some from abroad, may never have obtained a license.

To be sure, one cannot generalize about the driving skills of students. Experience does suggest, however, that when accidents and injuries occur on institution-related trips, the victims and their families may consider the college or university partially responsible. Today, litigants make vigorous efforts to hold colleges and universities accountable for accidents. This report is designed, first and foremost, to help reduce the frequency and severity of travel accidents

on institutional trips involving students. Second, it may aid institutions in more clearly allocating responsibility for student travel safety.

Please note that this report mentions many policies, products, and services. These serve merely as examples and are not endorsed by the groups sponsoring the report. Also note that policies and practices evolve. The examples offered here will be superseded by others over time.

This report does not purport to offer professional guidance. For legal advice, consult your institution's own counsel. For insurance advice, consult your institution's risk manager and insurance broker. For program development, thoroughly assess any policies, practices, products, or services for their suitability to your own situation.

Special thanks go to many people. Campus risk managers who offered special insight include Christopher Boroski, Linda Murphy Church, Debbie Martin, and many other generous members of the University Risk Management and Insurance Association. From the National Collegiate Athletic Association, I especially thank Elsa Cole, Wayne Burrow, chairs Jack McDonald and Debbie Richardson of the travel policies subcommittee, and the NCAA general

counselors' committee (Beverly Ledbetter, Craig Parker, Charles Carletta, Julie Vannatta, Kenneth McAnders, Pamela Bernard, Paul Ward, Thomas Butcher, Thomas Dorer, and Patricia Bartscher). From the American Council on Education, appreciation goes to Sheldon Steinbach (with assistance from C. Randall Nuckolls), Paula Moore, and the staff of the ACE Publications Department. Many of my former colleagues from United Educators also lent a hand, including Janice Abraham, Robb Jones, Joe McCullough, John Schwartz, Beth Daniels, and Janet Willen. Early information and encouragement came from Jeffrey Marcus and Jennifer Bishop, staff members with the National Transportation Safety Board. All these people and many others deserve thanks for contributing to a broad collective effort.

Safe travels.

Ann H. Franke, Esq.,
President, Wise Results LLC
Washington, DC

EXECUTIVE SUMMARY

American college and university students leave campus for many reasons, including athletic activities, community service, course field trips, scholarly meetings, and club events. Every year, students die when a charter plane crashes, a van rolls over, or a driver falls asleep. Transportation accidents are among the most likely risks that every higher education institution faces. Making student transit safer, primarily in domestic travel, is the subject of this report.

Tragedy often motivates a college or university to re-examine its travel practices with questions like the following:

- What training did the van driver have? How was his or her driving record?
- Did the team need to return to campus immediately after the night game?
- Would the field trip have been safer in a bus?
- Did a parent give us written permission for the 17-year-old recruit to fly in a donor's plane?
- How was the charter aircraft company selected?
- Does our liability insurance provide adequate coverage for the accident?

It is far preferable to ask questions about travel safety *before* a tragedy. That approach is a cornerstone of solid risk management. Yet it often takes student deaths or serious injuries to mobilize campus attention and change.

Decisions about travel always weigh risk, convenience, and cost. Each institution must seek its own balance among these inescapable elements. While no ready-made answers exist, the experiences of other institutions and the practices they have developed often guide campus decisions.

Buses, trains, and scheduled commercial plane flights are the safest forms of transportation in the United States. All three are subject to extensive government safety regulation. They may, however, be the most costly, and the schedules and locales of commercial service may be inconvenient. Many institutions rely on cars and vans for most student transportation. The institution may own vehicles, managing them as a central fleet or by departments. Students may use their own or family cars, in which case the institution lacks control over their roadworthiness and insurance coverage.

Americans often take driving for granted, discounting the significant risks of road travel. Road accidents typically originate from poor vehicle maintenance, driver error, or both. It should be a given that campuses maintain their own vehicles in safe operating condition. Fifteen-passenger vans, for example, pose a special risk if their tires are worn or improperly inflated. Tire damage, invisible to the untrained eye, may occur if a vehicle sits in the sun for long periods. After an accident, a jury will not be impressed with haphazard vehicle upkeep or lax recordkeeping of maintenance activities.

Many accidents involve an element of driver error. Young adults are prone to ignoring seat belts, speeding, and driving while drowsy or distracted by passengers, cell phones, eating, or adjusting the stereo. A student may be unaccustomed to driving a van or towing a trailer. Newly licensed drivers often lack the judgment that comes from experience. Even experienced drivers may have a history of infractions, whether major or minor. Passenger error is also a major problem. The recent history of campus accidents shows that passengers often neglect to wear seat belts. In a 2005 Utah State University van accident, 11 people were ejected, nine of whom died, and police did not find evidence that any of them had buckled their seat belts. In a 2003 University of Texas SUV accident, a professor and a freshman were not wearing seat belts and died. Unfortunately, many similar examples can be found.

Institutions address the problem of driver error in various ways. Solutions range from simple administrative steps to revamping transportation practices completely. Examples include:

- Photocopy the driver's license for record keeping, to show that the institution confirmed that the driver has a license.
- Require a certain number of years or miles of driving experience.
- Check the driver's motor vehicle record.
- Require training in defensive driving, van handling, trailer towing, accident protocols, or other topics.
- Limit the distance, number of hours, or number of passengers that students, or students under a certain age, may drive.

- Prohibit students, or students under a certain age, from driving campus-owned vehicles.
- Prohibit students from using personal vehicles on institution-related trips.
- Rely on short-term rental ZipCars or FlexCars instead of students' personal vehicles, to ensure adequate maintenance.
- Notify drivers of personal vehicles that their own auto liability insurance pays out first in the event of an accident.
- Prohibit students from driving large vehicles or any vehicles with passengers.
- Require drivers of vans to hold commercial driver's licenses.
- Post notices in vehicles about safe driving, seat belt use, and other key topics.
- Install electronic tracking or sensing equipment that monitors or corrects problems.

In air travel, at least 200 students and accompanying staff have perished since 1970. The 2001 charter crash that killed 10 Oklahoma State University players and others associated with the men's basketball team is widely remembered. Thirty-five students from Syracuse University and 11 other institutions died in 1988 when terrorists bombed a commercial Pan Am flight over Lockerbie, Scotland. Flight instruction programs and athletic teams that frequently fly charters face statistically higher risks.

Steps that institutions might take to reduce air travel risks associated with chartered and private planes include:

- Prohibit students and recruits from flying on donated flights.
- Develop requirements for flying according to instrument flight rules only.
- Prohibit flying into forecasted hazardous weather.
- Develop standards for pilot qualifications, the number of pilots, and plane maintenance.
- Establish clear authority for monitoring air safety.
- Limit the number of key passengers on any one flight.
- Travel only on scheduled commercial service.

Finally, each institution needs to gauge its own tolerance for risk. It can seek to reduce risk through enhanced risk management and training programs. For the accidents that do occur, sufficient insurance coverage reduces the financial hardship. Risk managers and experienced insurance brokers can help assess the adequacy of the institution's policies. Insurance is not, however, enough. The institution needs to reach out after an accident to the families and friends of those killed or injured. That support can help the injured student as well as his or her friends, faculty, and others on and off campus through an emotionally wrenching period. It also can reduce the possibility of a legal claim.

A child born in 2002 has one chance in 77 of dying in a transportation accident. Colleges and universities can work to improve those odds for their students.

INTRODUCTION

Student transportation safety can be examined from many different starting points. Where do students go? Why? How many leave campus for institutional activities on any given day? What means of travel do they most often use?

But pinning down specifics can be difficult. Consider these examples:

- A professor takes students on a field trip for a course.
- A club sports team plays an away game, perhaps under the general supervision of a faculty adviser or paid coach.
- A varsity team competes in a championship match.
- A student volunteer club undertakes a community service project.

Even if these groups were of identical size and traveling to the same destination, their travel modes could differ. The

class might drive a college-owned van for its field trip, the club sports team and the community service group might drive their own cars, and the varsity team might charter a bus or plane. One trip could be cancelled if the weather forecast was ominous, while another would press forward into a major storm system.

Different transportation modes present different costs and benefits. Expense, speed, convenience, and group capacity vary. In each case, however, safety should be an overriding concern. Unfortunately, transportation accidents are among the most predictable risks that any college or university faces. Sobering statistics come from the National Safety Council, which computed Americans' odds of dying due to various forms of transportation accidents (see **Table 1**). The odds were computed for a person born in 2002. Those who have

TABLE 1: ODDS OF DYING IN A TRANSPORTATION ACCIDENT: 2002*

Transportation Mode	One-Year Odds of Dying	Lifetime Odds of Dying
Car occupant	17,625	228
Pedestrian	47,273	612
Pick-up truck or van occupant	67,182	869
Air and space transportation	440,951	5,704
Bus occupant	6,696,307	86,628
Railway train occupant	10,283,615	133,035
ALL TRANSPORTATION ACCIDENTS (including bicycle, motorcycle, boat, and others)	5,953	77

* "Occupant" includes driver. The person born in 2002 has a life expectancy of 77.3 years. See "What Are the Odds of Dying?" at www.nsc.org/lrs/statinfo/odds.htm. Source: National Safety Council.

survived the treacherous years of adolescence and young adulthood have improved odds.

The federal government’s annual report on transportation fatalities further reinforces the toll taken by these accidents, as **Table 2** shows.

No college or university can provide a 100 percent guarantee of safety for any activity. As a moral and legal matter, however, an institution must take rea-

sonable steps to reduce the foreseeable risks within its control. In the event of an accident on an institution-related trip, those who made decisions about the trip will be called to account for the reasonableness of their actions. A study of the occupations of drivers responsible for accidents and speeding tickets found that students top both lists, as **Table 3** shows.

TABLE 2: U.S. TRANSPORTATION FATALITIES: 2004	
TOTAL TRANSPORTATION FATALITIES	44,870
TOTAL HIGHWAY	42,636
Passenger car occupants	19,091
Light truck occupants (including vans, truck-based station wagons, utility vehicles, and pickups)	12,602
Medium and heavy truck occupants	761
Bus occupants	41
Pedestrians	4,641
Motorcyclists	4,008
Bicyclists and others	1,492
TOTAL AIR	651
Airlines	14
General aviation (includes planes owned by individuals and corporations)	556
Other	65
TOTAL OTHER (includes railroads and boating)	1,583
Source: National Transportation Safety Board. 2003–04 U.S. transportation fatalities. See www.nts.gov .	

TABLE 3: OCCUPATIONS OF DRIVERS MOST RESPONSIBLE FOR ACCIDENTS AND SPEEDING VIOLATIONS	
ACCIDENTS	SPEEDING VIOLATIONS
1. Student	1. Student
2. Medical doctor	2. Enlisted military
3. Attorney/lawyer	3. Manual laborer
4. Architect	4. Politician
5. Real estate agent	5. Architect
Source: Quality Planning Corporation. (2003, October). <i>More drivers on the roads: Who are you most likely to run into?</i> San Francisco.	

WHO MANAGES YOUR STUDENT TRAVEL?

List the different types of trips that students may take for college-related purposes.

Examples include:

- Course field trips.
- Internships and community service.
- Theater, music, or other performances.
- Professional and scholarly conferences.
- Student clubs.
- Volunteer activities.
- Class orientation and social activities.
- Student government programs.
- Varsity team travel.
- Club sport team travel.
- Fraternity/sorority activities.

For each type of trip, identify the following:

- Who decides whether the trip will be made.
- Who selects the mode of transportation.
- Who, if anyone, oversees safety.
- Who can cancel the trip.
- Who has prime responsibility in an emergency.

Consider quantifying the amount of travel under the authority of each decision maker and establish benchmarks for safety.

Who makes the decisions? Decision making about student transportation is typically highly decentralized. A department chair and the athletic director have different student transportation needs and resources. Student groups themselves may travel extensively, under guidelines that foster student leadership and autonomy. The checklist in the sidebar “Who Manages Your Student Travel?” is a useful tool for identifying decision makers and the scope of student travel.

Too often, an institution will improve its transportation practices only in the aftermath of a serious injury or death. It is obviously preferable to anticipate problems. Relying on the right decision makers, and equipping them with appropriate guidance, promotes the cause of safety. This report offers many ideas for positive change. Decision makers can select the approaches that best fit their institutional needs.

ROAD TRAVEL

Overview

Because driving is so deeply embedded in contemporary American life, we often underestimate its risks. Poor vehicle maintenance and driver error lie behind most road accidents. Institutions face challenges in maintaining their own vehicles, which may or may not be managed collectively as a fleet. Colleges and universities have little or no control over the maintenance of private vehicles that might be used for student activities. Many students and staff view driving for off-campus activities as a right rather than a privilege. Young and inexperienced drivers pose special risks, yet, at the same time, may be prone to discounting the dangers of driving.

This section addresses a wide range of issues connected with road travel:

- Vehicle roadworthiness, maintenance, and documentation.
- Driver selection and training.
- Safe travel practices, including seat belt usage, driver distractions, and trailers.
- Trip planning and emergency response.
- New vehicle safety technologies.
- 15-passenger vans.
- Pickup trucks.
- Privately owned vehicles.
- Golf carts and utility vehicles, an underappreciated risk.
- Special student club issues.

Unfortunately, the history of college- and university-related student travel is filled with roadway crashes. The chart in Appendix A, drawn from media sources, illustrates some recent tragedies that led to more than 45 deaths and 80 injuries.


Given the risks of passenger cars, some institutions encourage or require large groups to use other forms of transportation. Oklahoma State University requires buses or mini-buses for groups of 20 or more athletes. The University of Tulsa requires parties of 25 or more passengers traveling by land to use an approved bus company.

Other institutions set their standards according to distance. The University of Richmond, for example, prefers chartered buses for team travel more than 75 miles from campus. Kenyon College uses a combined approach, requiring a bus for varsity team trips outside the county and for any group of 31 or more students that travels at least 400 miles round trip.

Vehicle Maintenance and Documentation

The primary goal of any maintenance program should be providing road-worthy vehicles. A maintenance program will benefit from guidelines for preventive maintenance, including weather-related adjustments. A comprehensive program also will cover the repair of any damaged vehicle, a timeline for vehicle replacements, and good



Throughout this report, the  symbol is used to indicate related material available on the CD-ROM accompanying this report.

documentation. Other functions such as purchasing, registration, insurance, and vehicle disposal may be handled separately or combined with the maintenance program.

In the event of an accident, vehicle maintenance deficiencies can become

evidence of institutional negligence. It is very hard to explain away faulty brakes, a bald tire, or other defects. In an extreme case, allowing someone to drive a university-owned vehicle that is in a condition that would be unlawful to drive can be considered *negligence per*

ONE UNIVERSITY'S POLICIES ON FLEET MAINTENANCE

The policies of Stephen F. Austin State University (SFASU)* suggest ideas for a fleet management and maintenance program:

"The fleet of vehicles owned and operated by SFASU shall follow guidelines set forth by government and private sector fleet 'best practices,' intended to increase State use and efficiency, reduce maintenance, and reduce operating costs.

"SFASU Manager of Transportation shall serve as fleet manager and reporting official and shall be responsible for observation and implementation of agency fleet management policies and procedures. Responsibilities of the fleet manager include, but are not limited to, vehicle purchasing, replacement, and disposal, vehicle maintenance and repair, and vehicle assignment and use.

"The Grounds and Transportation Automobile department shall serve as the SFASU motor pool and shall have responsibility for maintenance, repairs, records, and alternative fuel location for all campus vehicles. The fleet manager shall assign and meet with campus area coordinators to administer departmental vehicles and comply with reporting requirements of the State's Office of Vehicles and Fleet Maintenance (OVFM).

"The fleet manager shall develop vehicle-replacement criteria and shall notify a department when one of its vehicles meets the replacement criteria. Requests for vehicle replacements are the responsibility of each department and shall be considered during the annual budget process begun on a date following the date of notice. . . .

"Fleet operations are subject to minimum use criteria, vehicle-operator training and driver certification requirements, vehicle-disposal procedures, preventive maintenance and warranty tracking, safety and accident reporting procedures, and standardized safety-inspection and registration renewals."

Fleet Management, SFASU, www.sfasu.edu/upp/pap/facilities_management/fleet_management.html

* Texas adopted a law in 2000 requiring its state universities to develop driving policies for student activities. The resulting institutional policies provide many of the examples cited in this report.

se. Some maintenance problems may meet minimum legal operating standards but still support a claim of negligence against the institution. If a reasonable person would have noticed and repaired the condition, but the institution did not, the university may be liable. If the institution knew about the defective (but not unlawful) condition and failed to correct it, the university may be liable. A well-run and well-documented maintenance program helps any college or university prove its commitment to vehicle safety (see “One University’s Policies on Fleet Management” for an example of a fleet management and maintenance policy).

Institutions should take care in hiring qualified mechanics, using certification and licensing standards, if available. Some colleges and universities have found it cost-effective to outsource vehicle maintenance. Outsourcing may yield savings, and with well-drafted contracts, it also may transfer certain potential liabilities from the institution to a third party. In any potential outsource-

ing arrangement, thoroughly review the vendor to determine that it is both qualified and capable of performing adequate maintenance on the fleet. The outsourcing contract can include indemnification provisions, and the vendor can name your institution as an additional insured party on its insurance policy. The adequacy of the maintenance company’s insurance is worth checking annually.

A list of potential maintenance needs is as long as the number of parts in a vehicle. At a minimum, no vehicle should be used by or for students if it has visible physical damage. Some damage may appear cosmetic but actually mask more serious problems. Have a qualified mechanic inspect any damaged vehicle before returning it to service.

Tire problems may be less obvious. The National Highway Transportation Safety Administration (NHTSA) has highlighted the dangers of underinflated and worn tires. NHTSA estimates that accidents involving such tires lead to

A well-run and well-documented maintenance program helps any college or university prove its commitment to vehicle safety.

PREVENTIVE MAINTENANCE AS ROUTINE CARE

The Medical College of Georgia conducts a 48-item preventive maintenance inspection at least every 90 days or 3,000 miles on its fleet. Vehicles that travel extensively from campus receive more frequent service. Vehicle users receive notice of the preventive maintenance inspections via e-mail. (For more information on the policies of Medical College of Georgia, visit www.mcg.edu/psd/VehicleSvcs/PMI.htm.)

Pepperdine University performs preventive maintenance according to each vehicle manufacturer’s recommendations. Its policy reads, in part:

“The Department of Transit Services [<http://www.pepperdine.edu/businessservices/transit/>] has a fleet which consists of seven 15-passenger vans, two 9-passenger vans, one wheelchair lift-equipped van, one cargo van, and five shuttle buses, ranging in capacity from 24 to 30 persons. These vehicles undergo periodic preventive maintenance inspections and service in accordance with the manufacturer’s recommendations. A detailed operating and maintenance record is kept for each vehicle to meet safety requirements.”

414 fatalities and 10,275 injuries each year in the United States. NHTSA recommends that all tires be checked every month for proper inflation and wear patterns. This carries special importance for 15-passenger vans, given their documented rollover propensity (see page 28). A van that is parked in the sun for long periods may suffer tire deterioration even if it is driven infrequently. Routine inspection of van, car, bus, and other vehicle tires may locate potential difficulties before they cause a serious problem.

Two other maintenance hazards deserve special note—vehicle electrical systems and brakes. One university suffered several bus fires that were apparently due to inadequate or inappropriate electrical maintenance. The buses were owned and operated by a third party that contracted with the university to provide bus service. Were litigation to result, the risk-transfer provisions in the contract would be critical in apportioning responsibility. (See page 39 for a discussion of contracting procedures.) Problems with vehicle brakes require immediate attention. Very often, the first report of a brake problem may come from a vehicle driver or passenger. Other safety equipment meriting thorough inspections are headlights, taillights, and brake lights, including bulbs and mounting. The fuel system, windshield, and any coupling hitches also can be important to safe operation.¹



Many institutions solicit verbal or written reports of problems from drivers as they check out or return a vehicle (a sample driver vehicle inspection form appears on the accompanying CD). For serious issues that immediately affect the

use of a vehicle, the driver should notify the campus by phone during the trip. Some institutions prefer that users not attempt to make repairs of any kind, including changing tires. Vehicles should include instructions that inform users of the accepted emergency protocol. (More information on this subject is available on page 24.) A good maintenance program will include a check that all regularly supplied emergency equipment and information is present.

Each institution should ask itself: Are *all* of our vehicles receiving routine preventive maintenance? For those vehicles in a fleet—that is, those that may be centrally reserved or rented by members of the university community—the answer may be simple to determine. There is a very good chance, however, that many more vehicles are in use beyond the official fleet. Individual academic departments may own vehicles. The athletic department may have vans or buses. Key personnel, such as the president and coaches, may drive cars provided by the institution, a foundation, or donors. Extension agents may drive vehicles reserved exclusively for their use, and an institution might own trucks or farming vehicles for agriculture projects far from the home campus. When taking an inventory of vehicles, also consider overseas locations. Teachers and researchers may use institution-owned vehicles in foreign study and research. One risk manager was surprised to discover that her university owned a vehicle in Antarctica. For every vehicle, the institution is well advised to implement a plan for regular maintenance and documentation. (See “Maintenance and Disposal” for a creative approach to keeping a fleet in good repair.)

¹ Della-Guistina, Daniel E. (2004). *Motor fleet safety and security management*. (pp. 83–84). Boca Raton, FL: CRC Press.

MAINTENANCE AND DISPOSAL

Planned strategies for disposing of used vehicles can help ensure the roadworthiness of a fleet. The University of Texas at Arlington, for example, uses this approach:

State Fleet Vehicles Replacement Goals

- a. The following guidelines provide minimum replacement goals for routine vehicle replacement. Attainment of these goals is expected to minimize fleet capital and operating costs.
- b. As a goal, most vehicles should be replaced when they reach 6 years (72 months) of service or 100,000 miles, whichever comes first. However, there may be circumstances in which vehicles may be replaced sooner (such as excessive maintenance or repair costs) or retained longer (such as unusually low maintenance costs). Fleet managers may make this determination on a case-by-case basis, using these guidelines as a starting point in their deliberations.
- c. The following table details the specific replacement goals for different types of vehicles and vehicle uses:

Vehicle Type	Purpose	Replacement Goals	
		Age	Or Mileage
Sedans and Wagons	Staff or client transport	6 years	90,000 miles
Light Trucks and Sport Utility Vehicles (SUVs) (8,600 GVWR or below)	Basic transport, light hauling	6 years	100,000 miles
Passenger Vans	Staff or client transport	6 years	100,000 miles
Cargo Vans	Cargo hauling	8 years	100,000 miles

Source: The University of Texas at Arlington, www3.uta.edu/policy/fisregs/phyplt/05-15.htm.

Maintenance Documentation. Whether a campus mechanic or a third party provides services, good repair and inspection records for every vehicle are critical. A well-documented maintenance program will improve the quality of maintenance and help prevent accidents. Records may be kept on paper or electronically. Software can be purchased

or developed to track preventive maintenance, vehicle mileage, and other data.² If vehicle maintenance is outsourced, consider including documentation requirements in the contract. Retain documents for at least the life of each vehicle and store them so they are easily accessible to vehicle managers, mechanics, risk managers, and legal counsel.

² The National Association of Fleet Administrators offers a publication, titled *Fleet Information Management Systems Information Guide*, on evaluating and purchasing fleet maintenance software. See the Selected Resources section, page 48.

From the vantage of litigation, a vehicle maintenance program is only as good as its documentation.

After an accident, records can help demonstrate the institution's care in maintaining roadworthy equipment. Even if a court finds the institution partially or entirely liable for an accident, good documentation can help limit the amount of damages, including punitive damages. Good records can sometimes even discourage frivolous lawsuits against the institution. From the vantage of litigation, a vehicle maintenance program is only as good as its documentation.

Driver Selection and Training

Some institutions consider anyone with a driver's license qualified to drive off campus, with passengers. A few colleges do not even bother to check whether the individual has a license. Many institutions, though, have developed good programs for selecting and training drivers for student travel.

Campus driver qualifications typically rely on elements such as minimum age, driving history, and participation in driver training. Requirements may vary for those driving institutional vehicles

and those using their personal vehicles. Qualifications might be lower for those driving on short trips or not carrying passengers. An institution's automobile insurance carrier can be a good resource in structuring driver qualification requirements. Some common elements for driver qualifications follow.

Driver Age. NHTSA has documented that driver age correlates with fatal accident rates. Simply stated, young drivers are involved in a disproportionately high number of fatal crashes, as **Table 4** shows. Drivers aged 21–24, for example, represented 5.6 percent of the population in 2002 but were involved in 11.1 percent of the fatal highway crashes. Drivers aged 15–20 also have poor experience.

The National Institute for Occupational Safety and Health has explained some factors that increase the crash susceptibility of younger drivers.³ These drivers typically develop vehicle handling skills quickly, but they require more time to acquire higher-order perceptual and cognitive skills that allow them to recognize hazards and respond appropriately. They

TABLE 4: FATAL ACCIDENT RATES, BY DRIVER'S AGE

	Age Group (Years)							
	15–20	21–24	25–34	35–44	45–54	55–64	65–69	70+
2002 Population (Percent)	8.5	5.6	13.8	15.6	13.9	9.2	3.3	9.0
Drivers Involved in 2002 Fatal Crashes (Percent)								
• Single-Vehicle	18.5	13.5	20.7	18.0	13.4	7.4	2.3	5.7
• Multi-Vehicle	12.2	9.6	19.7	19.9	15.9	9.8	3.1	9.8
• All Fatal Crashes	14.6	11.1	20.1	19.2	15.0	8.9	2.8	8.2

Source: National Highway Traffic Safety Administration, National Center for Statistics & Analysis. Traffic Safety Facts 2002, Young Drivers. See www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2002/2002ydrfacts.pdf.

³ Pratt, Stephanie G. (2003, September). *Work-related roadway crashes: Challenges and opportunities for prevention* (pp. 57–58). Washington, DC: National Institute for Occupational Safety and Health. Available without charge at www.cdc.gov/niosh/docs/2003-119/.

may have difficulty determining which factors in the driving environment require their attention at any given moment. Their immaturity also affects their judgment, and they may overestimate their own abilities and engage in riskier behavior than adult drivers. Lifestyle choices involving fatigue and time pressures also can reduce their driving effectiveness.

Campuses may respond to these realities by including age restrictions in their driver approval processes, as “Limits Set on Drivers’ Ages” shows. Some prohibit all students from driving on campus-related travel. Others set minimum driver ages, such as 21 or 25. Some institutions may require drivers who are younger than a specific age to complete a driver training program, and others impose distance limitations on student drivers. Finally, when rental cars are involved, minimum ages required by the rental company may eliminate younger drivers.

Driving History. Possession of a valid driver’s license is an obvious prerequisite for driving on behalf of an institution. The campus public safety office, fleet manager, departmental secretary, or other manager can require the individual to produce a license. Making and retaining a photocopy of the license establishes proof that the check was made.

In addition to checking for licenses, more institutions are now also checking driving records, particularly for those who will be driving passengers, driving larger vehicles, or driving regularly on behalf of the institution. The University Risk Management and Insurance Association (URMIA) has noted that no consensus currently exists on whether to check motor vehicle records (MVRs) for all drivers.⁴ The group recommends some checking, particularly on employees whose job descriptions specifically mention driving. Other drivers might be checked randomly or with cause, such as after an accident. Some institutions

LIMITS SET ON DRIVERS’ AGES

Many colleges and universities impose a variety of limits on campus drivers:

- Bates College requires all students and faculty under age 25 to complete a driver training course before driving a college-owned vehicle.
- The University of Texas at Brownsville prohibits students from driving university-owned vehicles, unless they are also employees.
- Kenyon College requires students to be at least 21 years old to drive a college-owned 15-passenger van.
- George Washington University requires that drivers of rental vehicles be at least 21 years old.
- The University of Wisconsin–Green Bay requires drivers to be at least 18 and have two years of driving experience.

⁴ University Risk Management and Insurance Association. (2000, September). *Vehicle liability: Managing the risks, an URMIA best practices report* (p. 5). Available to URMIA members at www.urmia.org in the Virtual Library.

Just because a student is 18 or 21 years old does not mean that she has had extensive driving experience.

require drivers to bear the cost, typically \$10 to \$30, of an MVR check. MVR checks might be handled through the public safety office, risk management office, human resources office, auto insurance company, or an outsourced vendor. An excellent resource is the annual volume *The MVR Book: Motor Services Guide* (BRB Publications, Inc., www.brbpub.com). It contains comprehensive, state-by-state information on how to obtain records, including contact information, cost, and requirements for driver consent. Among many other features, it includes state standards for license suspension and revocation.

An institution checking driving history also needs a process for evaluating and acting on the data. A typical threshold for driving a college-owned vehicle might require the driver to be free of any of the following:

- Six or more traffic violation points under state law (or converted from other states' point systems).
- Any chargeable accidents within the past 24 months.
- Any convictions for driving under the influence of alcohol or drugs or other major violations, such as reckless driving, hit and run, driving with a suspended license, or fleeing from a police officer.

Driving experience may be another criterion to consider. Just because a student is 18 or 21 years old does not mean that she has had extensive driving experience. A driver might, for example, have obtained her license the previous

week. In states with graduated license programs, some teenagers prefer to skip the phase-in of driving privileges and simply obtain a license when they reach the age at which restrictions end. International students, too, may have a license but little time behind the wheel. To address such concerns, several institutions have explicit requirements for driving experience. The University of Wisconsin System, for example, requires that students, volunteers, and student employees have at least two years of licensed driving experience. Time with a learner's permit does not qualify.⁵ Note that an experience requirement could also be couched in terms of a certain number of miles driven during the previous year.

Other requirements could be developed to fit institutional circumstances. Beyond institutional policies, federal regulations require that drivers must hold commercial licenses if their vehicles carry 16 or more passengers or weigh more than 26,000 pounds.

Driver Training. The successful completion of a driver training program can be a valuable factor in selecting drivers.⁶ Some institutions require anyone who may carry passengers for college activities to complete driver training, while others concentrate training on drivers of vans and other less familiar vehicles. General defensive driving courses can be helpful, regardless of the type of vehicle to be used. Towing trailers is also a special skill that merits training.

Driver training can be accomplished through in-person workshops, video

⁵ University of Wisconsin System Risk Management Policy and Procedure Manual, Part 7, Vehicle Programs, sec. 6 (3). See also Mount St. Mary's University Student Driver Program, which requires one year of driving experience, and the University of Virginia, which recommends two. See www.msmary.edu/studentsandstaff/publicsafety/student_driver_program.htm and www.virginia.edu/riskmanagement/driversafety.html, respectively.

⁶ The National Transportation Safety Board has launched an inquiry into the effectiveness of driver training programs. See proceedings of the Public Forum on Driver Education and Training, October 28–29, 2003, at www.nts.gov/Events/symp_driver_ed/proceedings.pdf.

DRIVER TRAINING RESOURCES

This list provides a starting point for researching driver training, but it does not purport to be comprehensive. For more ideas, check with local public safety officials, trucking companies, technical colleges, or your state transportation department.

Nonprofit

AAA Foundation for Traffic Safety—www.aaafoundation.org

The American Automobile Association Foundation for Traffic Safety provides driver safety materials geared to new teen drivers and to the general public. Short, inexpensive videos are available on topics such as road rage, antilock brake systems, and railroad crossings.

American Driver and Traffic Safety Education Association—<http://adtsea.iup.edu/adtsea>

This nonprofit organization of driver educators offers an online library that includes training resources and fact sheets on many safe driving topics.

National Safety Council—<http://secure.nsc.org/train/ddc/>

The National Safety Council offers driver training resources and a certification process for driver educators. Its educational programs include defensive driving and van handling. Useful materials available without charge on the web site include fact sheets on topics such as driving in the rain, using antilock brakes, and night driving.

For Profit

Alert Driving—www.alertdriving.com

This company supports the fleet industry as well as educational institutions. It offers van-driver training materials and a service to check driver motor vehicle records.

Doron Precision Systems—www.doronprecision.com

Doron manufactures simulation equipment for driving cars, buses, and trucks. Entertainment simulations, such as those on NASCAR and motorcycle thrills, are also available for rent or purchase.

FirstNet Learning—www.firstnetlearning.com

FirstNet Learning has three defensive driving online courses. One uses the same content as the National Safety Council's course, another is a general defensive driving program, and the third is "International Defensive Driving." They range in length from 1.5 to 3.5 hours.

Smith System—www.smith-system.com

This company offers popular computer-based driver training that can be customized, as well as videos and print materials. Video titles include, among others, seat belt usage, following distance, and safe backing. The company also provides safety decals for vehicles and a toll-free number for reports from the public.

presentations, online programs, on-the-road experience, or any combination of these. Establish and use consistent criteria for the successful completion of a course, such as test scores. See the sidebar “Driver Training Resources” on page 13 for information on driver training programs.

Safe Driving Practices

Fatigue and Limits on Driving Time and Distance.

Driver fatigue is a leading cause of traffic accidents in the United States. Fatigue affects driver perception, information processing, and reaction times. In the extreme, it causes a driver to fall asleep. Fatigue can arise from factors including night driving, extended wakefulness, inadequate sleep, and sleep disorders. A study of hospital residents using a driving simulator showed that

their driving ability after a “heavy night call” equaled their skill when rested but moderately intoxicated. The residents had limited recognition of their degree of impairment.⁷ Driver fatigue or drowsiness was implicated in 3.1 percent of the fatal crashes in the United States in 2000.⁸ Federal regulations limit the number of hours that commercial truckers can drive in a day, and New Jersey has passed a law prohibiting drowsy driving.

Many colleges and universities have developed their own restrictions (see “Rules Set on Time and Distance”). These may take the form of limits on the number of hours a driver can be behind the wheel without a break or during a 24-hour period. Institutions may prohibit driving after 10 p.m. or 11 p.m. Similarly, distance limitations

RULES SET ON TIME AND DISTANCE

Some colleges and universities impose driving guidelines that relate to the duration or distance of the trip:

- Oklahoma State University requires students who drive cars and minivans on the university's behalf to be at least 21 years old, have a valid and approved driver's license, and be rested. A qualified, paid driver is required if the trip is longer than 350 miles one way or is expected to extend later than 2 a.m. or overnight.
- The University of Texas at Dallas requires two university-approved drivers on trips more than 200 miles in total length. For shorter trips, two approved drivers are encouraged but not required. On long trips, drivers must rotate every three hours, and no more than eight hours of driving can be completed during any one day. Driving between 11 p.m. and 6 a.m. is prohibited, without prior approval of the appropriate administrative official.
- Muhlenberg College prohibits student drivers from taking college-owned sedans and seven-passenger vans more than 200 miles from campus, nor are they permitted to travel into or through New York City. No driver may drive for more than eight hours out of any 24-hour period. Driver training is required for any student or employee driving seven-passenger vans.

⁷ Arnedt, J. Todd, et al. (2005, September 7). Resident performance after night call. *Journal of the American Medical Association*, 294(9), 1025–1033.

⁸ Pratt, *Work-related roadway crashes*.

may compel young drivers to stay within a tight radius of the institution.

One study found that one-third of all drivers who fall asleep at the wheel are between 18 and 24 years old, while this age group constitutes only about 19 percent of all drivers.⁹ The researchers found that young men tend to have drowsy driving accidents more often than young women, and that these accidents peak between 2 a.m. and 6 a.m.

The warning signs of fatigue include:

- Forgetfulness.
- Impaired decision making and communication.
- Slower reaction times.
- Staring ahead instead of scanning surrounding conditions.
- Drooping eyelids.
- Close calls, such as drifting into another lane or not maintaining a safe following distance.¹⁰

Alcohol consumption also is closely linked to drowsy driving.

What are the solutions? Techniques such as turning up the radio, rolling down a window, and slapping or pinching oneself are *not* effective counter measures to deteriorating driving performance. Consuming caffeine during a rest break can increase alertness for a brief period. But a very sleepy driver can, caffeine notwithstanding, succumb to dangerous “micro-sleeps” lasting a few seconds. The only way to restore driving alertness is to stop driving as soon as possible and take a nap. It’s

important that your policy address the proper behavior to combat fatigue.

Seat Belts. Data on the value of seat belts and the tragic costs of not using them are well established.¹¹

- From 1994 through 2002, 59 percent of people who died in motor vehicle crashes nationwide were not wearing seat belts.
- Unbelted vehicle occupants are ejected 30 percent of the time and, when totally ejected, 70 percent of occupants die as a result of the ejection.
- In 2001, more than 21,000 lives could have been saved if all passenger vehicle occupants over age 4 used seat belts.
- Lap and shoulder belts, when used together properly, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent, and cut the risk of moderate-to-critical injury by 50 percent.
- For occupants of light trucks, which the government defines to include vans and SUVs, safety belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent.

One recent study even concluded that when backseat passengers are wearing seat belts, front-seat passengers have a lower risk of death. The presumption is that unbelted back-seat passengers may be forcefully thrown against those in front.¹²

It’s important that
your policy address
the proper behavior to
combat fatigue.

⁹ Nygen, Lan T., et al. (1998). *Changing behaviors to prevent drowsy driving and promote traffic safety: Review of proven, promising, and unproven techniques*. AAA Foundation for Traffic Safety, available at www.aaafoundation.org/projects. See also *Wake Up* brochure from the AAA Foundation for Traffic Safety at the same web site.

¹⁰ See Don’t drive drowsy. (2005, September/October). *AAA World*, 9.

¹¹ National Transportation Safety Board. (2004, December). Primary seat belt laws safety alert. See www.nts.gov/alerts/SA_005.pdf.

¹² Seat belts for all save lives. (2002, February 15). *The Chronicle of Higher Education*, A26.

Young drivers and passengers are least likely to use seat belts, according to NHTSA. **Table 5** shows NHTSA's estimates of motorist seat belt usage by gender and age in 2003.

Regional variations in seat belt use patterns exist, and depend, in part, on

TABLE 5: NATIONAL SEAT BELT USE, BY GENDER AND AGE: 2003	
MALES	77%
Ages 8–15	84%
Ages 16–24	72%
Ages 25–69	78%
Ages 70+	83%
FEMALES	84%
Ages 8–15	77%
Ages 16–24	80%
Ages 25–69	85%
Ages 70+	83%

Source: National Highway Traffic Safety Administration. (2004, May). *Safety belt use in 2003: Demographic characteristics*. NHTSA Technical Report, 5. See www.nhtsa.dot.gov/people/injury/airbags/809729.pdf.

TABLE 6: REGIONAL SEAT BELT USE BY 16- TO 24-YEAR-OLDS: 2003	
All Regions	75%
Northeast	87%
Midwest	79%
South	57%
West	75%

Source: National Highway Traffic Safety Administration. (2004, May). *Safety belt use in 2003: Demographic characteristics*. NHTSA Technical Report, 21. See www.nhtsa.dot.gov/people/injury/airbags/809729.pdf.

whether a state has a “primary seat belt” law permitting traffic stops and tickets for seat belt violations alone. Regional statistics for seat belt use by young adults in 2003 appear in **Table 6**.

Colleges and universities can minimize the risk of injury to their students and employees by establishing a seat belt policy that requires anyone traveling on a school-sponsored trip or for institutional business to use a lap and shoulder belt (see “Sample Policy on Seat Belt Use”). Elements of a campus program might include:

- Adopting a clear policy on seat belts.
- Limiting the number of passengers in a vehicle to the number of working seat belts.
- Training drivers to require all passengers to wear seat belts.¹³
- Posting notices in campus vehicles that seat belts are mandatory.
- Providing occasional reminders about seat belt use in faculty, staff, and student newspapers, web sites, or other literature.

One military base commander went a step further and offered a \$50 reward to anyone who found him driving without his seat belt.

Driver Distractions. Experts estimate that 284,000 crashes each year in the United States involve distracted drivers.¹⁴ While cell phones are well recognized as a driving distraction, other activities can have the same effect. Eating, adjusting stereo or climate controls, grooming, talking to passengers, tending to children, and reading have been documented as driving distractions. A study

¹³ For a potential training tool, see the Insurance Institute for Highway Safety’s video “Reducing Your Risks in the Crash.” Using crash test dummy footage, the 10-minute film shows the value of proper restraints and of sitting back from the steering wheel. Available in closed caption and Spanish versions, the film is available for \$35 from www.iihs.org.

¹⁴ Information in this section is largely drawn from Stutts, Jane C. et al. (2001, May). *The role of driver distraction in traffic crashes*. University of North Carolina Highway Traffic Research Center. Commissioned by the AAA Foundation for Traffic Safety. Available at www.aaafoundation.org/pdf/distraction.pdf.

SAMPLE POLICY ON SEAT BELT USE

[Name of Your Institution] recognizes that seat belts are effective in preventing injuries and fatalities. We care about our students, faculty, and staff, and want to reduce the risk that, in the event of an accident, a passenger is injured or killed. Therefore, all students, faculty, and staff of [Name of Institution] must wear seat belts when operating a school-owned vehicle or any vehicle on our premises or while on school business. All occupants also are to wear seat belts or, where appropriate, child restraints when riding in a school-owned vehicle or in a personal vehicle being used for school business. All students, faculty, staff, and their families are strongly encouraged to use seat belts or child restraints whenever they are driving or riding in any vehicle.

Adapted from a recommendation of the Network of Employers for Traffic Safety.

DISTRACTED DRIVING IMPLICATED IN WORLD'S FIRST ROAD DEATH

In August 1896, an employee of the Anglo-French Motor Car Company offered demonstration rides to the public on the grounds of the Crystal Palace in London. The employee hit and killed a 44-year-old mother with two children. The car was reportedly traveling at 4 m.p.h., described by witnesses as a "tremendous speed." The driver was said to have been talking to the young lady passenger beside him. At the inquest, the coroner said, "This must never happen again."*

* See *World's First Road Death*, at www.roadpeace.org/articles/worldfir.html.

of 1995–1999 crash data by the Centers for Disease Control and Prevention showed that drivers younger than age 20 are the most likely age group to be involved in distraction-related crashes. The common distractions in this age group include adjusting the stereo and changing CDs. Young adult drivers in the 20–29 age range are most often distracted by other passengers, possibly the cause of the first-ever road fatality (see "Distracted Driving Implicated in World's First Road Death").

Table 7 lists the prevalence of various distractions among all drivers. Two distractions that are not listed are DVD players and headphones. DVD players,

TABLE 7: DRIVING DISTRACTIONS

Specific Distraction	% of Drivers
Outside person, object, or event	29.4%
Adjusting radio/cassette/CD	11.4%
Other occupant	10.9%
Moving object in vehicle	4.3%
Other device/object	2.9%
Adjusting vehicle/climate controls	2.8%
Eating and/or drinking	1.7%
Using/dialing cell phone	1.5%
Smoking related	0.9%
Other distractions	25.6%
Unknown distraction	8.6%
Source: Compiled from CDC data.	

To combat distracted driving, colleges and universities must educate drivers about common distractions and their role in accidents.

whether portable or installed in a vehicle, can entertain passengers with movies and games. Some irresponsible drivers watch them in the rear-view mirror or with a portable player placed on the front passenger seat. Headphones, an older form of distraction, are illegal for drivers in most states. Advise students of your state law regarding headphones, or adopt an institutional policy that is at least as strict as state law.

Sights outside a vehicle can also distract a driver. The risk manager at one land-grant university noted above-average accident rates among drivers in the ornithology and milk quality programs. The drivers, he believed, were distracted by observing roadside birds and cows.

To combat distracted driving, colleges and universities must educate drivers about common distractions and their role in accidents. Consider adopting a policy that requires drivers to pull over to use a cell phone or to eat.¹⁵ One school removed the radios and audio players from its vehicles to reduce distractions.

Trailers. During institution-related travel, students may have occasion to drive vehicles that tow trailers. Examples include:

- A crew team towing equipment shells.
- An equestrian course or club towing horse trailers.
- An agricultural course or club towing equipment, hay, or livestock.
- An athletic team, outing club, band, or other group towing equipment and luggage.
- An engineering club towing a completed project.

- Cinematography students towing a trailer with heavy equipment during shooting, or towing a vehicle carrying actors for a driving scene.

Safe towing requires far more than hitching up and driving off (see “The Crew Trailer Began to Fishtail: A True Story”). The addition of a trailer completely changes how a vehicle handles. Institutions must take care to educate students about special safe driving techniques, as well as appropriate practices for hitching and loading trailers.

In 2005, three Minnesota State University–Mankato students were killed and five were injured in a crash that illustrates the hazards of trailers. The group, all automotive engineering students, was driving a van and towing a Formula series racing car they had built. Traveling from Minnesota to Detroit, they planned to compete against 140 teams in an event sponsored by the Society of Automotive Engineers. According to police and press accounts, a gust of wind caused the trailer to fishtail. The driver lost control of the van, which crossed the median and rolled several times, stopping in the path of oncoming traffic. Two semi-trucks were unable to avoid hitting it. Occupants of a second university van that was following the trailer witnessed the horrific crash.

By coincidence, a Wisconsin National Guard eight-vehicle convoy carrying medically trained soldiers and equipment was within a half mile of the crash, on its way to a disaster exercise. The convoy was on the scene within seconds and began emergency procedures on the victims, probably saving some additional

¹⁵ According to one source, the foods most commonly found at the scene of traffic accidents are hot soup, hamburgers, barbecued ribs, fried chicken, and jelly donuts. Milloy, Courtland. (2005, September 14). Teen drivers taught to be cool in the ‘hot zone.’ *Washington Post*, B1.

THE CREW TRAILER BEGAN TO FISHTAIL: A TRUE STORY

"In 1997–98, my son was a freshman member of his university's crew team. He volunteered to become certified to drive a university van, to help out on team trips. The certification process consisted of a short written test and an on-the-road component, driving a van for a few miles. The training did not cover towing trailers.

"Over spring break, the 100-member crew team traveled south to practice where the lakes were not frozen. Some drove and others flew. My son was in a 15-passenger van with the head coach, an assistant coach, and team members. They were pulling a trailer carrying 11 shells and other team equipment. Together, the van and trailer were longer than a tractor-trailer. My son took over driving in Virginia on a mountainous stretch of I-84. The wind was very high that afternoon, to the point that some team members who were flying had their flights diverted around the weather front.

"The head coach was riding in the front passenger seat. He and my son were wearing seat belts, but no one else was. Controlling the van was challenging. When passing a tractor-trailer, the upside-down shells would create a vacuum and suck the van toward the larger vehicle. My son crested a long hill and felt the trailer begin to fishtail. The coach instructed him to accelerate to control the problem. Due to this poor advice, about a mile later the van and trailer jackknifed, flipped over into oncoming traffic, and then landed upright.

"A combination of circumstances prevented serious tragedy. The van and trailer rolled toward the road's uphill side rather than the downhill side. Two passengers who were ejected on the uphill side, a rower and a coxswain, avoided being crushed. While hurtling out of the van, the rower managed to brace himself and also grab the coxswain, pulling them both back inside the vehicle. The drivers of two tractor-trailers who saw the accident stopped traffic, so no oncoming vehicles hit the wreckage. The backup on the interstate stretched for 25 miles, and the team worked until midnight to clean up the mess. A rival team passing by stopped to assist. . . .

"My son's accident crushed 10 of the 11 shells, causing \$300,000 in damage. He had a camera and took good photos of the aftermath. The police charged him with reckless driving, and he was required to appear for trial in Virginia. . . . Our attorney argued that my son had successfully completed the university's required training, which did not cover towing a trailer, and he was following his coach's instructions while driving. Fortunately, the judge dismissed the charges, in part because my son had an unblemished driving record and had been an Eagle Scout.

"After the accident, my son learned that inside the van, to the left of the steering column, was a box with a brake for the trailer.

"Throughout the whole ordeal, the university made no effort to contact our family, which still disappoints us today."

—As told by a mother who manages risk for an educational institution.

In addition to informing drivers of state law requirements, institutions can follow some basic tips when educating drivers about towing a trailer safely.

lives. The soldiers also assisted the occupants of the second van with their psychological trauma. The tragedy prompted one member of the Society of Automotive Engineers to post an electronic message urging readers to:

- Load a trailer properly.
- Stay within the trailer's weight rating.
- Stay within the towing vehicle's weight rating and the total combined rating.
- Use a proper hitch, particularly a weight distribution hitch and active sway-control equipment.

Other online comments mentioned that teams were sometimes exhausted from finishing their projects when they set off for the competition.¹⁶

In addition to informing drivers of state law requirements, institutions can follow some basic tips when educating drivers about towing a trailer safely, such as:

- *Matching towing vehicle and trailer.* Check the manufacturer's specifications for both the towing vehicle and the trailer. Specifically, check their compatibility, as well as the tow weight and tongue weight, which is the weight that presses down on the trailer's hitch. The load weight can be estimated or actually weighed on a public truck scale.

- *Hitching, braking, and wiring.* Select an appropriate hitching system, and connect safety chains, which are required in most states. Cross the chains, with some slack, to permit sharp turns. Many states require trailers loaded with more than 1,500 pounds to have a separate braking system and a breakaway switch that activates if the trailer separates from the towing vehicle. Federal law requires trailers to have tail lights, brake lights, side marker lights, turn signals, and side and rear reflectors. Some trailers also have reverse lights.
- *Tire safety.* All trailer tires should be of the same type and construction. Tires on the towing vehicle may require higher pressure when carrying loads, especially heavy ones.

The National Highway Traffic Safety Administration has published an excellent pamphlet, *Towing a Trailer: Being Equipped for Safety*.¹⁷ Consider providing copies of the pamphlet, which is available online, to students, faculty, and staff who have occasion to tow trailers. Its useful contents include many safety tips for driving with a trailer. (See also "Online Resources on Trailer Safety" for other useful references.)

Trip Planning and Vehicle Caravans. The extent of trip planning depends on the nature of the trip. A visit to a nearby, familiar destination differs from a trip to a distant, unfamiliar one. Some institutions leave trip planning to the travelers themselves, while others have adopted basic protocols.

¹⁶ See *Crash kills three Mankato students*, Associated Press story, May 17, 2005; *Van crash kills three: Wisconsin Guard unit provides aid*, Associated Press story, May 19, 2005. See also web postings by Brian Evans and others at <http://fsae.com> on May 18, 2005.

¹⁷ The pamphlet is available at www.nhtsa.dot.gov/cars/problems/Equipment/towing/Towing.pdf.

ONLINE RESOURCES ON TRAILER SAFETY

Horse Trailer Maintenance and Trailing Safety
www.cdc.gov/nasd (search for “trailing”)

Recreational Vehicles and Trailers, California Department of Motor Vehicles
www.dmv.ca.gov/pubs/dl648/dl648toc.htm (also available in Spanish)

Towing a Trailer: Being Equipped for Safety
www.nhtsa.dot.gov/cars/problems/Equipment/towing

Towing Tips from Reese Products
www.reeseprod.com; click on “Info,” then “Towing Tips”

Trailing Safety Checklist from Sherline Products
www.sherline.com/lmsafchk.htm

U-Haul Trailer User Instructions
www.uhaul.com/guide/userguide-trailer.pdf

Take the example of an art professor requiring her students to meet for a class session at a local museum. The professor could simply tell the students when and where to meet, leaving transportation arrangements to the students themselves. Some institutions favor this approach, rather than having the professor become involved in arranging car pools, designating drivers, and other travel details. Should an accident occur, the institution may bear less responsibility if it did not facilitate the travel arrangements.¹⁸ Course field trips to distant locales merit greater coordination. Institutions can develop their own approaches to the level of care they wish to undertake for course-related

transportation. (See page 38 for information on the use of waivers for course-related travel.)

For longer, coordinated road trips, drivers need to plan travel routes in advance and equip themselves with adequate maps and directions to their destination. In one 2004 accident, the lead van carrying a men’s basketball team missed an exit, as did the van that followed. Both vehicles made U-turns, and upon doing so, the second van was hit by a tractor-trailer. (See the Navarro College entry in Appendix A.) This tragedy highlights the need for good route planning.

¹⁸ See *Stockinger v. Feather River Community College*, 111 Cal. App. 4th 1014, 4 Cal. Rptr. 3d 385, 2003 WL 22038890 (Cal. App. 3 Dist. 2003). In this case, the court ruled that the college had no duty to arrange safe means of transportation for a student performing an off-campus class assignment, which involved a three-day trip to a location within 20 miles of campus. The student was injured when she chose to ride in the open bed of a pickup truck driven by a classmate.

Some experts advise against vehicle caravans. They suggest that the task of following another vehicle diverts a driver's attention from traffic conditions and road hazards. Following tail lights at night may cause drowsiness. A caravan also increases a college's aggregate risk, upping the chance that multiple vehicles—and more occupants—might be involved in a collision. Instead of caravanning, vehicles traveling to the same destination can meet at predetermined points, such as rest stops. They also can communicate via cell phones (used by passengers rather than drivers). Whether caravanning or not, each vehicle should have its own maps and directions.

Other Driver Requirements. Other driving concerns that institutions' policies may address include the following:

Alcohol and Drugs. While alcohol and drug problems permeate many campuses, the recent history of student accidents on institution-related trips suggests that drowsy driving is a bigger problem than driving under the influence. The national efforts of Mothers Against Drunk Driving and law enforcement agencies may have led many students to understand that, at least during "official" driving, alcohol and drugs are inexcusable. Approaches to help reduce the chance that a student might drive for an institutional activity while impaired include these examples,

drawn from the policies of two universities in Pennsylvania:

- *Adopt a policy against driving while impaired.* While drunk driving has not been a major contributor to accidents involving institution-related student travel, it remains a source of injury and death.¹⁹ As such, some institutions expressly prohibit driving while impaired. Gannon University requires that drivers must "never drive under the influence of drugs or alcohol."²⁰
- *Adopt a policy against alcohol in vehicles.* Lehigh University's policy states, "Alcoholic beverages are not allowed on any vehicle owned by, rented by, leased by, chartered by, in the custody of, or under the control of Lehigh University at any time. Vehicle operators (drivers) and passengers are responsible for ensuring that no alcohol is carried onto any vehicle under their control. This includes, but is not limited to, kegs, cases, cans, bottles, coolers, etc."²¹
- *Develop reporting mechanisms.* At Lehigh University, drivers must report all incidents, including attempts to bring alcohol onto university vehicles, to the director of transportation services.

¹⁹ *Bradshaw v. Rawlings*, 612 F.2d 135 (3d Cir., 1979), is a classic case in which an intoxicated student drove a classmate back to campus from a sophomore class picnic. The driver had an accident that left the passenger a quadriplegic. In an often-cited opinion, the court ruled that the college did not owe a duty to the passenger. The class picnic was unsupervised and was widely known for serving alcohol to underage students. One could argue that the case might be decided differently today.

²⁰ Gannon University. Vehicle safety and use policy. Available at www.gannon.edu.

²¹ Lehigh University. Transportation and alcohol policy. Available at www.lehigh.edu.

- *Establish standards for driver disqualification due to past drug or alcohol infractions.* Institutions that check drivers' motor vehicle records may give greater weight to drug or alcohol infractions than to other types of violations. Gannon University requires that students be free of DUI violations within the past 18 months, as well as any at-fault collisions over the same period.²²
- *Prohibit alcohol on bus trips.* Lehigh University prohibits alcohol on charter bus trips, whether the vehicle is driven by a university employee or a charter driver. Its policy reads, in part: "Should the consumption of alcohol become obvious to the driver, the vehicle will be stopped as soon as it is safe to do so, and all alcoholic beverages will need to be removed from the vehicle before the trip is continued. Failure of any passenger(s) to comply, or any additional alcohol use, will cause immediate cancellation of the trip, with the driver returning the vehicle and passengers to campus. The renter will be charged for the complete trip."

Campuses also may enhance their own transportation systems to reduce the risk that students who drink will also drive. For example, some schools have established shuttle buses or services that provide drivers, such as Safe Ride, to take students to and from local bars, reducing student use of their own cars.

Key Removal. Removing the keys from a parked vehicle is second nature for most drivers, but not all. One institution faced a significant liability claim

when a passerby went for a joyride in a campus vehicle in which the keys had been left, and then seriously injured a pedestrian. Consider adopting a policy requiring the driver to remove the keys and lock the vehicle when it is left unattended. This applies to all types of vehicles, including golf carts, boats, and aircraft.

Inclement Weather. Some trips must be postponed or cancelled if the weather is threatening. Consider requiring drivers or trip organizers to check the forecast before departing. Develop a mechanism for making sensible determinations about trip cancellation. For weather problems that develop during a trip, some institutions agree to defray the cost of an overnight stay if weather impedes safe return to the campus.

Additional Ideas. Other ideas for safe driving policies and training include checking that front-seat passengers are appropriately seated to avoid airbag injuries (sitting far from the dashboard or, for small-framed people—including children—in the back seat); prohibiting unauthorized drivers; and prohibiting the transport of hitchhikers, family members, or other people not involved in the activity. Consider, too, an explicit statement that traffic and parking tickets are the responsibility of the driver, not the institution. Some schools require drivers to advise the institution if their driver's licenses are suspended or revoked. Finally, given that speed is a contributing factor in many accidents, consider requiring drivers to allot a generous amount of time for any trip.

Institutions that check drivers' motor vehicle records may give greater weight to drug or alcohol infractions than to other types of violations.

²² For a general discussion of college student driving while impaired by drugs or alcohol, see Zimmerman, Robert, and DeJong, William. (2003). *Safe lanes on campus: A guide for preventing impaired driving and underage drinking*. Washington, DC: The Higher Education Center for Alcohol and Other Drug Prevention. Available at www.higheredcenter.org.

Emergency Preparations and Response

Whether caused by institutional drivers or others, road accidents will occur. Colleges and universities can take useful steps to prepare for these emergencies and plan appropriate responses. One step is to set a benchmark—a low numerical accident rate that the institution wants to achieve—and work toward it (see “Benchmark Your Accident Rates”). Here are some elements to consider in planning for emergencies. Several apply to air travel as well as road trips.

Provide emergency equipment and documents in vehicles. For vehicles owned by the institution, develop a standard list of equipment and documents that each vehicle will always contain. Items might include:

- Vehicle registration card.
- Insurance identification card.

- Instructions on emergency repairs.
- Instructions for accidents, including campus contact phone numbers.
- Accident report form and pencil or pen. 📄
- Cellular telephone.
- Jack and spare tire.
- Flashlight.
- Jumper cables.
- Fire extinguisher.
- First aid kit.
- Triangle reflectors or flares.
- Blanket.
- Disposable camera.
- Snow brush and ice scraper, if appropriate.

Trip leaders might be required to carry enough cash or credit to resolve any problems that arise.

BENCHMARK YOUR ACCIDENT RATES

Consider tracking your campus accident experience and measuring it against a benchmark.

First, define what you mean by the term *accident*. In fact, some risk managers prefer the term *collision*, defined as one vehicle's impact with any other vehicle, object, or person. Collision is a more neutral term, without implications of mistake or injury.

Given that, what collision rate might you expect to see in your road travel programs? One expert has suggested a general rule of thumb of 0.5 collisions per million miles driven for 18-wheel trucks regulated by the federal Department of Transportation. For smaller vehicles, such as automobiles and pickup trucks, a rate of three collisions for every 100 vehicles driven regularly during the course of a year would reflect a reasonable safety program. With assistance from your automobile insurance carrier, define the factors you want to measure and the safety rates you hope to achieve. Then track your experience over time.*

* See Loy, Dennis. (2004, February). *Managing and insuring fleet risk*. In *The New Reality of Risk Series*, by Marsh Risk Consulting Practice. NHTSA estimated that in 2004 the fatality rate in motor vehicle crashes was 14.52 per 100,000 population. The National Safety Council offers software for tracking accidents, ACCUSAFE.MV. See the American National Standards Institute (ANSI) *Manual on Classification of Motor Vehicle Traffic Accidents*, ANSI-D16, developed by the National Safety Council. Available from www.ansi.org.

Know who's traveling, where, and when. A roster of individuals participating in a trip, particularly a long journey, can be invaluable in the event of an emergency. Consider requiring student groups taking trips to provide information such as: exact destination; trip itinerary; departure and return dates and times; destination contact person and phone number; an accurate roster of participants, with student identification numbers; emergency contacts for all participants; and cellular phone numbers for one or more participants. Vehicle rental information or flight information also may be appropriate. Be sure to document which travelers are in which vehicles. One small college requires its trip leaders to check in with the institution's public safety office upon a group's safe return.

Plan for breakdowns. Anticipating the possibility of a flat tire or dead battery on the road, some large institutions provide their own emergency road assistance within a set radius of the campus. National roadside assistance services can, of course, be arranged. Decide in advance how a group should address mechanical problems that develop during a trip. Advise drivers and keep a copy of the information in the vehicles.

Develop protocols. Advise drivers how to report vehicle operating problems and accidents. Be sure to maintain documentation from accidents involving personal injury for at least as long as the statute of limitations on the potential lawsuit. Check with your legal counsel for the relevant time period.

Vehicle Safety Technologies

Devices to improve driver and passenger safety range from the simple seat belt to futuristic technologies. In recent years, researchers have developed an impressive array of vehicle safety devices. Below are some of the time-tested and newer devices that can improve the safety of vehicles used for student transportation.

"How's My Driving" Decals. Working with a vendor, colleges and universities can set up toll-free numbers for other drivers to call if they see a car or truck from the institution driven in an unsafe manner.²³ An institution could also set up its own system, designating a phone number with staffing or a suitable recording, and placing decals on the backs of vehicles. One university uses "how's my driving" stickers on all campus-owned vehicles, including cars, vans, buses, and trucks, with just two exceptions—the president's car and the athletics director's car. Other institutions might label all vehicles uniformly, exempt passenger cars regularly driven by only one person, or exempt cars that might carry people such as dignitaries or major donors.

Another approach is to put decals inside cars. After a fatal traffic accident, Whitman College placed a decal inside its college-owned vehicles, indicating that if passengers felt the vehicle was being operated in an unsafe manner, they should call the campus public safety office immediately. The phone number was provided.

In recent years, researchers have developed an impressive array of vehicle safety devices.

²³ See, for example, PHH Arval (www.phharval.com), which includes fleet decals; faxed reports following calls; and periodic summary reports. Driver's Alert Inc. offers decals, software, and other products (www.driversalert.com). Safety Net Inc. offers both generic and customized decals (www.fleetsafe.com). And Smith System provides decals and a toll-free number for reports from the public (www.smith-system.com).

Video Recording. Small video cameras may be mounted behind vehicle rear-view mirrors to record images of the road ahead. These provide documentation of both other vehicles' reckless driving that may cause an accident and mechanical problems or driver error in the camera-equipped vehicle. Dual-lens cameras also can directly capture driver actions.²⁴

Global Positioning Systems (GPS). A range of GPS devices is available to track vehicle locations. GPS systems are now commonly found in municipal bus fleets and commercial taxi and trucking operations. For college and university purposes, they could be used to pinpoint an accident site or to check that vehicles are not driven beyond set boundaries.²⁵ An institution should notify its drivers if a GPS system is in use.²⁶

Low Tire Pressure Warning Systems. In 2000, Congress directed NHTSA to require low tire pressure warning systems on new vehicles.²⁷ NHTSA mandated adoption of these systems for passenger cars by 2006 and for other vehicles by 2008. The sensors detect any tire that becomes underinflated by 25 percent or more, activating a yellow dashboard warning light. The sensors improve fuel efficiency, reduce vehicle maintenance, and, most significantly, address the safety hazard of underinflated tires. Sensors are also available for after-market installation on older vehicles.

Adaptive Cruise Control. These devices improve on conventional cruise control through the use of forward-looking radar that automatically adjusts the vehicle's speed to maintain a safe distance between it and the vehicle in front of it. Installed behind the vehicle's grill, the radar detects the distance to, and speed of, the vehicle ahead. If the system detects that the lead vehicle has slowed, or detects another object, the system either slows the engine or applies the braking system. When conditions improve, the vehicle accelerates again.²⁸ As with standard cruise control, driver control overrides the automatic features. Adaptive cruise control is currently available on certain luxury cars and can be installed after-market.

Lane Departure Warning Signal. Systems now exist to alert drivers when their vehicles stray from their travel lane. A small camera mounted behind the rear-view mirror detects lane markings. A microprocessor combines the camera's data with the vehicle's speed to gauge both the distance between the vehicle and the lane marking and the lateral speed to the lane marking. If the vehicle strays, visual and audible indicators are activated. The use of a turn signal overrides the warning system, and a manual override also exists. The technology is being introduced on some luxury cars and has been used in commercial trucks in the United States and Europe.²⁹ It also can be added to existing vehicles.

²⁴ See, for instance, the web site of DriveCam (www.drivecam.com), which offers sample video clips taken by its products. Intec Video Systems is another vendor (www.intecvideo.com).

²⁵ GPS vendors include GPS Fleet Solutions, Advanced Tracking Technologies Inc., Geotab, and Discrete Wireless Inc.

²⁶ One institution faced a discrimination charge by an employee who claimed that the covert installation of a system in his vehicle was racially discriminatory.

²⁷ 49 CFR, parts 571 and 585.

²⁸ See, for example, Visteon (www.visteon.com).

²⁹ Iteris has developed its AutoVue lane departure warning system. See www.iteris.com.

Backup Obstacle Sensing Devices. Some new cars offer sensing equipment that detects objects in the path of the car when it backs up. Similar equipment is available for after-market installation. Most of the systems operate with microwave motion-sensing technology and alert the driver with an audible tone and dashboard indicator.³⁰ Note that backup sensing devices may not, however, detect the presence of small children.³¹ In considering this technology, one campus risk manager decided against installing it, believing that drivers would begin to depend exclusively on the warning system and cease turning to look around while backing up.

Audible Backup Signals. Many trucks, bulldozers, and other heavy equipment come equipped with audible signaling devices that sound when the vehicle reverses. These also may be installed on smaller vehicles. As with backup sensing devices, drivers may fail to look back, on the dangerous assumption that all pedestrians will get out of the way. But the signal might not be audible above surrounding noises, and pedestrians might be hard of hearing, wearing headphones, or otherwise distracted.

Other External Sensors. Buses that transport children face the ever-present danger of striking a child who is entering or exiting the bus and outside the driver's field of vision. At least one motion sensor is designed to activate when the bus flashers are on and the front gate is extended. In addition, when a person or object comes within several

feet of the bus on any side, warning signals and lights come on.³² Institutions that bus children for lab schools, summer youth camps, or community service programs may want to explore these devices.

On-Board Crash Event Recorders. Similar to the "black boxes" found in airplanes, event recorders are now available for cars, trucks, and buses. These on-board collision sensing and recording devices may be installed by the manufacturer or added as after-market equipment. They are commonly linked to airbag deployment. Since 1999, some General Motors vehicles have had the capability to record elements such as driver's seat belt use, pre-crash vehicle speed, engine rpm, throttle position, and brake status. Technicians or crash investigators can retrieve these data with special electronic equipment after an accident. Federal transportation safety agencies see the potential for improving both accident prevention rates and investigation techniques through wider use of these devices in cars and trucks.³³ Some states, however, are beginning to adopt laws limiting access to and use of vehicle black box data.

³⁰ See, for instance, Rostra Precision Controls' Obstacle Sensing System (www.rostra.com); and the EchoMaster Reverse Sensing System (www.echomaster.com).

³¹ Kids and Cars is a nonprofit group that tracks child back-over deaths. Visit www.kidsandcars.org.

³² See, for example, the Rostra Student Detection System (www.rostra.com).

³³ National Highway Traffic Safety Administration. *Recording automotive crash event data*. Available at www.nhtsa.gov/cars/problems/studies.

15-Passenger Vans

In recent years, the federal government and educational institutions have devoted considerable attention to the safety record of 15-passenger vans. These vans, which actually carry one driver and 14 passengers, are the largest passenger vehicles that can be operated under federal regulations without a commercial driver's license (CDL).³⁴ Since 2001, the National Transportation Safety Board has issued several reports and warnings about the rollover propensity of 15-passenger vans. Many educational institutions have discontinued the use of these vans for transporting passengers, either removing them entirely from their fleets or restricting their use to carrying materials. Many institutions that continue to carry passengers in these vans have adopted various practices that reduce the rollover potential. For instance, the vans are safest when the vehicle's center of gravity is low and the drivers know how to handle them. Here are some common precautions:

- Limit the number of passengers. Carrying more than 10 people increases the rollover problem.
- Seat passengers toward the front of the van, in front of the rear axle.
- Ensure that seat belts are operational, not wedged below the seats, and used by all passengers and the driver.

- Prohibit roof racks and trailers.
- Require special training, a minimum age, and other qualifications for van drivers. Training for emergencies, such as skids and tire blow outs, is particularly useful, because handling a van in these situations differs markedly from handling a car. Consider mandatory comprehensive training for all van drivers. Some institutions prohibit students, or students under a specific age, from driving vans with passengers. Others require every van driver to hold a commercial driver's license. (Even drivers with CDLs should have experience with vans.)
- Limit the speed at which the vans can be driven, the type of roads on which they may be used, and the distance they may be taken from campus.

The National Transportation Safety Board has stressed the importance of tire wear and inflation in 15-passenger van safety. It offers this explanation:

- Regularly check the condition of tires for uneven wear, cracks, and damage. Many of these vans are not continuously driven like the family car. Low mileage doesn't mean tires are safe. Age, sunlight, and just being parked for long periods can lead to deadly tire degradation and dry rot. Unfortunately, dangerously deteriorated tires cannot always be detected by visual inspection alone. It often takes an automotive repair professional.

³⁴ As recently observed by broker John Watson, some states, notably including California, do require a commercial, or Class B, license to drive a 15-passenger van. Travelers from other states going through California should note this requirement.

- Check the tire pressure often and make sure it conforms to the van and tire manufacturers' standards. Be aware that front and back tires may require different inflation pressures, and these pressures may be higher than the tires on passenger cars. The manufacturer's recommended pressure is usually on driver's door sill or in the tire owner's manual. A major problem with these vans is that tires are often under-inflated, leading to higher tire temperatures, faster tire deterioration, and diminished driving stability.³⁵

One college, noting that its 15-passenger vans were unused over the summer, sold them and now leases vans for nine months. The leasing company supplies new models every year, reducing the college's concerns over maintenance and tire wear.

Options for institutions discontinuing use of 15-passenger vans include multiple 8-passenger and 10-passenger vans, mini-buses, private charter buses, and school buses.

Pickup Trucks

Not long ago, a college student became a paraplegic after she was thrown from the back of a pickup truck driven by a classmate, while the two students were preparing an outdoor class assignment.³⁶ More than 100 teens and children die each year while riding in the cargo area of pickup trucks, according to NHTSA.

Most victims are killed when they are thrown during collisions or when the vehicle swerves, brakes, or travels over rough terrain. Occasionally, passengers add to the risk by standing up in the cargo area, sitting on the tailgate, or horsing around.

In fatal pickup truck crashes, passengers in the cargo area are three times more likely to die than occupants in the cab. An enclosed top (camper shell) over the cargo bed does not provide adequate protection. Victims may be thrown from side to side, and a top presents the added risk of carbon monoxide poisoning from exhaust fumes.

Compared with cab occupants who are properly using seat belts or child restraints, the risk of death for cargo area passengers is eight times greater. In nonfatal accidents, cargo area victims suffer more severe injuries and more multiple injuries. Faced with these facts, more than half of the states and the District of Columbia have enacted laws to restrict passengers from riding in the cargo areas of pickup trucks. Many of the laws, however, contain exemptions, such as for individuals over a certain age, often 16 or 18; trucks driven at low speeds; and trucks used in farming.³⁷

Colleges and universities should consider adopting a policy at least as strict as state law. If your state law includes exceptions, consider requiring all students and instructors riding in pickup trucks to be seated and belted.

More than 100 teens and children die each year while riding in the cargo area of pickup trucks, according to NHTSA.

³⁵ *Organizations that use 15-passenger vans urged to inspect tires, always use safety belts.* NTSB Safety Alert. Available at www.nts.gov, click on Highway, then click on Safety Alerts.

³⁶ *Stockinger v. Feather River Community College*, 4 Cal. Rptr. 3d. 385 (Cal. App. 3 Dist. 2003).

³⁷ To check your state's laws on riding in pickup truck cargo areas, visit the Insurance Institute for Highway Safety's web site (www.iihs.org) and see "Restrictions on Riding in Cargo Areas of Pickup Trucks," under State Law Facts. See also the Texas A&M University Agriculture Program's "Riding in an Open Pickup Bed Is Dangerous" at http://fcs.tamu.edu/safety/passenger_safety/youth_traffic_safety.php; and the National Highway Traffic Safety Administration's "Kids Aren't Cargo: Children Placed at High Risk in Pickup Trucks," at www.nhtsa.dot.gov/people/outreach/safesobr/15qp/web/pdf/kids.pdf.

Privately Owned Vehicles

At most institutions, students may drive their personal vehicles for field trips, athletic contests, and other group outings. Using personal cars, vans, or trucks is often the most convenient and affordable way for student groups to travel. It may not, however, always be the best way. The maintenance and insurance of a private vehicle are among the elements of a safety program that lie beyond the college's control. Institutions can, however, develop guidelines for the use of private vehicles in student transportation. (In insurance parlance, these vehicles are termed "non-owned autos" because they are not owned by the institution.) Dartmouth College, for example, requires proof of liability insurance, a statement of a recent safety check, and written confirmation of the vehicle owner's permission to use it for college activities. (The Dartmouth confirmation form appears on the CD accompanying this report.) Texas A&M University requires proof of insurance, registration, and state inspection. Prairie View A&M University prohibits students from using private cars to transport other people on university-authorized or -funded trips.

Some institutions seek to impress upon vehicle owners that *their* insurance will first be used to provide coverage in the event of a crash. One institution explains, "The owner, driver, and passengers of private cars assume liability in the event of a crash."³⁸

Another college answers a frequently asked question about insurance:

Do I have coverage from the College if I drive my own car?

If you drive your own car on College business, your *own* insurance policy serves as a "primary" policy for third-party liability and physical damage to your vehicle. This means that if a claim arising out of an accident exceeds your policy limits, then the College's policy will cover the accident in excess of your policy. For example, if you carry \$20,000/\$40,000 liability insurance, and injure a pedestrian severely, resulting in over \$100,000 of medical bills, your policy would pay the first \$20,000 of the claim, and the College policy would respond for the balance of the claim. The College's Uninsured/Underinsured coverage does not extend to non-owned vehicles.³⁹

Any university employee who encourages a student to use a private vehicle for institution-related travel should understand that the owner's liability insurance will be on the line.

³⁸ Austin Peay State University Policies and Procedures Manual, Student Group Travel Policy, paragraph III.C.

³⁹ Mt. Holyoke College Fleet Vehicle Handbook, reproduced on the CD accompanying this report.

Golf Carts and Utility Carts

Golf carts and utility carts may not immediately come to mind as forms of student transportation, but they are widely used on and off campus, occasionally with tragic consequences. A graduate student working in a freshmen orientation program at a public university, for example, died from head trauma when he fell or jumped off the back of a golf cart.⁴⁰

Students may drive utility carts for activities including research projects, community service, and athletic events. Some utility vehicles, such as John Deere Gators, can reach speeds of 25 mph and carry a passenger. They may be equipped with a trailer hitch and four-wheel drive for use on hills and rough off-road trails.⁴¹ All of these elements increase the potential for injury.

Consider developing written policies, a driver's license check, mandatory training, and a practical exam for anyone who will operate a golf cart or utility cart for student events on your campus. Other elements of an institutional policy might include:

- Requiring regular maintenance for all carts.
- Designating authorized personnel to operate carts.
- Identifying approved routes, which may restrict cart drivers to campus, and not allowing travel on city streets. Consider restricting street crossing to crosswalks.

- Setting speed limits no greater than 15 mph. Driving around curves and down hills requires slower speeds.
- Yielding to pedestrians and not trying to pass other moving carts or any motor vehicles.
- Restricting the number of occupants to the manufacturer's specification; obliging all occupants to remain seated and hold on while the cart is moving, with arms and legs inside; requiring use of seat belts, if available; and prohibiting alcohol and drug use before or during cart trips.
- Requiring drivers to take the keys and set the brake when they leave the cart.

Driver training also can help prevent cart accidents. The University of South Florida, James Madison University, and other institutions have developed driver training materials and cart use policies.⁴²

Various safety features may protect drivers and passengers, as well. Consider buying carts with rollover cages, roofs, and windshields. Inside the cart, post stickers with passenger safety and driver operating instructions. Add-on safety features include headlights, turn signals, brake lights, roof-mounted strobe lights, a tall fiberglass whip with a bright orange flag, and a "slow-moving vehicle" placard.

Consider developing written policies, a driver's license check, mandatory training, and a practical exam for anyone who will operate a golf cart or utility cart for student events on your campus.

⁴⁰ Personal conversation with John Schwartz, Esq.

⁴¹ John Deere recommends that all Gator owners take a safety course, such as those offered by the ATV Safety Institute. See www.atvsafety.org.

⁴² See, for instance, Belmont University: www.belmont.edu/safety/pdf/golfcart; Old Dominion University: <http://web.odu.edu/af/ehs/golf%20cart%20safety%20pamphlet.doc>; James Madison University: www.jmu.edu/safetyplan/vehicle/golfcart.shtml; Loyola University of Chicago: www.luc.edu/safety/golfcart/LUC%20Golf%20Cart%20Policy.pdf; University of South Florida: http://isis.fastmail.usf.edu/usfgc/gc_pp/admsv/Gc6-018.htm; and the video, "Safety Training for Golf Cart Drivers," available at www.nctr.usf.edu/golfcart.htm.

Student Clubs with Special Road Travel Issues

While many student clubs engage in travel, some pose special issues. Colleges and universities may wish to place additional requirements or exert special oversight on the types of organizations discussed below.

Storm Chasing Clubs. Chasing tornadoes and other severe storms is a popular activity in the “tornado alley” section of the country. Hobbyists and students of meteorology are drawn to it. Storm chasing clubs may drive 1,000 miles in the course of a weekend, as they head directly into dangerous weather conditions. Driving safety recommendations from a veteran storm chaser, employed by the National Severe Storms Laboratory, include:⁴³

- Avoid chasing alone.
- Use good tires and, to avoid hydroplaning, be alert to standing water on the road.
- Avoid chasing in cities.
- Avoid speeding. Instead, be content to miss some of the action.
- Avoid unpaved roads.
- Park only in legal areas, and do not obstruct the road right-of-way.
- Slow down when driving in heavy rain or dust, and use your lights to improve your visibility to others.

Xtreme Engineering, Including Mini-Baja and Formula Racing. The Society of Automotive Engineers (SAE) sponsors several competitions for collegiate engineering students. In one event, student teams build off-road mini-Baja vehicles, powered by a 10-horsepower engine. The teams bring their vehicles to a competition that involves races on outdoor courses over rugged terrain. In a similar vein, the Formula SAE contest pits 120 small racing cars built by student teams against one another in competition. In all its collegiate events, the SAE requires participants to sign a liability waiver that releases SAE from responsibility for injury or damages. Institutions may wish to review their own liability waivers as well as insurance coverage for automotive events. Most policies exclude experimental or racing vehicles. Because teams generally tow their vehicles on trailers to the competitions, driver training on hitching and maneuvering with trailers may be appropriate. For more information about SAE events, visit <http://students.sae.org/competitions>.

⁴³ Doswell, C. A., III. “Chasing with Safety, Courtesy, and Responsibility.” See www.cimms.ou.edu/~doswell/Chasing2.html.

AIR TRAVEL

The 2001 Oklahoma State University charter plane crash is but one in a series of tragedies that have befallen college athletes and other students who have flown on institution-related trips. While most trips prove uneventful, deaths and injuries can occur, particularly on charter and private flights. Appendix B lists some of the major student-transportation air crashes since 1960, which have resulted in 223 deaths.

Scheduled commercial flights are the most closely regulated and safest form of air travel. A group taking a commercial flight can rely on the pilots' qualifications, training, and experience, as well as on the plane's airworthiness. Contractual agreements with risk transfer and insurance provisions are unnecessary, and travelers can enjoy a high degree of confidence, based on statistical experience, in arriving safely at their destination.

Other flights, such as charters and flights donated by alumni, may offer the advantages of convenience and economy. Institutions may consider nonscheduled flights for sports team travel or travel by researchers or student groups to remote areas. But chartering an aircraft raises issues of pilot qualifications, training, and experience, as well as the airworthiness of the plane. They also involve contractual agreements with important risk transfer and insurance provisions. (See "Risk Transfer," beginning on page 37, for further discussion of charters.)

Oklahoma State University (OSU) extensively revised its team travel policies after the 2001 crash. (The university's new policy, adopted in 2002, appears on the CD accompanying this report.) The NTSB reviewed the revised policy in 2003 and concluded that "it is a comprehensive travel management system that promotes safe university-sponsored team travel and provides the necessary oversight to ensure that transportation services are carried out in accordance with the provisions of the revised policy."⁴⁴ Among the features that



⁴⁴ See NTSB Safety Recommendation A-03-01, in a letter from Acting Chairman John Hammerschmidt to Myles Brand, NCAA president; David Ward, American Council on Education president; and Steven Baker, National Association of Intercollegiate Athletics president. Available at www.nts.gov/recs/letters/letters.htm.

the NTSB commended were the following:

- The revised team travel policy requires two pilots for all OSU air travel that involves student athletes. Previously, some donated flights and air charter flights were allowed to operate with one pilot, provided the aircraft was certified for single-pilot operation. A friend of the pilot who was killed in the 2001 accident stated in an interview after the crash that the pilot often flew for OSU without a co-pilot “because the athletic department staff wanted to use all the seats.”⁴⁵ The revised policy requires two pilots and prohibits team members from piloting an aircraft for team travel.

- The revised policy states that all flights are to be operated under instrument flight rules (IFR) and that aircraft may not depart into forecasted hazardous weather conditions. The previous OSU policy allowed aircraft to be operated under visual flight rules (VFR), in which pilots navigate using visual contact with objects on the ground. Under IFR, the pilot relies on aircraft instrumentation. IFR require greater training and experience and permit aircraft operation in a broader range of weather and visibility conditions. The previous OSU policy also gave the pilot discretion to determine if weather conditions were safe for takeoff. The revised policy prohibits takeoff into thunderstorms, severe icing, severe turbulence, or wind shear.

UNIVERSITY OF ALASKA WILDERNESS AIR TRAVEL POLICIES

The University of Alaska has developed air travel policies tailored to its environment. The university's *Remote Travel Safety Guide* explains a state law that requires provision of emergency rations and equipment. Alaska law:

requires aircraft pilots to provide emergency equipment and rations for each and every flight within the state. Be sure that the owner and/or pilot confirms that the required survival gear is on board. Weight distribution is extremely important; let the pilot load the plane. Dress to survive the worst terrain and climate over which your air route will take you. Wear leather gloves. Carry extra clothes and your emergency survival gear. Do not smoke around fueling operations.

The guide also explains how to stomp ground-to-air signals into snow and conventions for air-to-ground signals. Additional helicopter rules cover topics such as wearing survival clothing up to the waist during flight and making cooking and heating fires well away from the helicopter.

Source: University of Alaska. (2003). *Remote travel safety guide*. Available at www.alaska.edu/swrisk/download/TravSafety.pdf.

⁴⁵ NTSB Safety Recommendation, p. 5.

- *The revised policy generally prohibits student athlete travel on donated aircraft. While coaches and other staff may travel on donated aircraft, teams must use only commercial, charter, and time-share aircraft. Very limited exceptions exist and require written parental approval for athletes younger than 21 years old.*
- *The revised policy strengthens provisions for pilot qualifications and aircraft maintenance. OSU has developed new pilot specifications that are more stringent in some respects than those of the Federal Aviation Administration (FAA). The revised policy also addresses maintenance, a subject not covered in the earlier version. It requires aircraft to be maintained by an FAA-certified repair station, the manufacturer, or a manufacturer-authorized service center. The policy also establishes qualifications for maintenance personnel.*

At the same time that the NTSB commended OSU for its revised team travel policy, it recognized that other schools have different needs. The agency encouraged colleges and universities to develop suitable policies to fit their own needs, including smaller-scale athletic programs, club, academic travel, and unique weather conditions (see “University of Alaska Wilderness Air Travel Policies”).⁴⁶ The best policies include provisions for oversight and accountability.

The agency encouraged colleges and universities to develop suitable policies to fit their own needs, including smaller-scale athletic programs, club, academic travel, and unique weather conditions.

⁴⁶ NTSB Safety Recommendation, pp. 6-7. One interesting resource on basic aviation safety is a set of online modules from the federal government’s Interagency Aviation Training program (<http://iat.nifc.gov/index.htm>).

RISK TRANSFER

Travel by Minors

Minors participate from time to time in student activities and travel. School children may, for example, be brought to campus for tutoring. Summer campers may visit a special offsite facility. Children from the campus daycare center may take a field trip. Even prospective or matriculating college students may be 17 or younger.⁴⁷ College and university officials should keep in mind two overall requirements for transporting minors. The first is a regulation under federal law prohibiting the sale of 15-passenger vans for the school-related transportation of high school-aged or younger students.⁴⁸ Second, as a general legal principle, minors cannot make legally binding decisions about their own safety or waive their rights. A minor cannot sign a waiver or release form.

In one tragic situation, a high school student had volunteered to assist a university athletic team's trainer, who was an undergraduate. The minor's parents had signed a release that permitted him to travel on the team bus to an away game. Instead of taking the bus, however, the young volunteer rode with the student trainer, who drove his own car. They had an accident, and the high school student was killed. The parents had not given permission for

any form of transportation other than the bus. They charged the university and the undergraduate with negligence in the death, and the lawsuit was later settled for an undisclosed sum.⁴⁹

A good safety program must accommodate the needs of minors. Here are several sample policies:

- Students younger than age 18 must have a liability waiver signed by a parent or legal guardian. (Austin Peay State University)
- It would be best to limit the transportation of minors who are not accompanied by a parent or guardian to vehicles owned, leased, or rented by the university, or vehicles driven by university employees within the scope of their employment. Such a requirement should be stated on the indemnification form, and parents of minors must know of this arrangement. (University of Texas, Dallas)
- Except for immediate emergency evacuation, persons younger than 18 may not take passage on aircraft purchased, chartered, leased, managed, or contracted by the institution. (Lawrence Berkeley Laboratory)

⁴⁷ Note that most, but not all, states consider 18 to be the age of legal majority.

⁴⁸ See NHTSA Action Plan for 15-Passenger Van Safety, November 2004 update, available at www.nhtsa.gov/cars/problems/studies/15PassVans/15passvan.html. The report includes a useful table of requirements in all 50 states.

⁴⁹ United Educators general liability claims data.

Waivers

Many institutions require signed liability waivers from all students who are legally adults and who participate in on- and off-campus activities. A good form explains the specific risks that the activity entails, states that the student is undertaking the activity voluntarily, and includes the student's advance forgiveness to the institution for any omissions or negligence causing injury to him or her. A waiver can be helpful in the event of litigation. The college may use the waiver to show that the student knew what the activity involved, participated voluntarily, and agreed not to hold the college responsible for any resulting harms.

State laws vary on the requirements for, and effectiveness of, liability waivers. Although institutions should seek legal counsel in drafting waivers

and similar documents, following are some general principles that, depending on state law, may prove important:

- The more specifically the waiver can describe the trip's risks, the better. Detailed explanations help show that a student, or his or her parents or guardian, should have understood what the activity involved.
- Waivers may not be effective for mandatory course activities, since participation is not voluntary in a traditional sense.⁵⁰ (See "Distinctions in Texas A&M University Policies.")
- Minors cannot waive their own rights. Any participant in a trip who is below the state's age of majority (generally, but not universally, 18 years) needs the written consent of a parent or guardian. The activity should then proceed as described in the waiver.

DISTINCTIONS IN TEXAS A&M UNIVERSITY'S POLICIES

Texas A&M University's student travel policies distinguish between travel related to academic course requirements and travel for voluntary student activities:

"An undergraduate or graduate student who participates in travel related to academic course requirements (e.g., field trips), or their assigned duties as a University employee (e.g., research data collection) shall not be required to sign a waiver or release in relation to that travel.

"Students voluntarily participating in elective student activities requiring travel will be required to complete a waiver and release form verifying that they understand and accept the risks involved in participating in the travel activity, and assume responsibility for their behavior. Students under the age of eighteen (18) must have a release form signed by their parents or legal guardian."

Source: <http://rules-saps.tamu.edu/PDFs/13.04.99.M1.01.pdf>

⁵⁰ See *Whittington v. Sowela Technical Institute*, 438 So. 2d 236 (La. 1983). In this case, a senior nursing student who had signed a waiver prior to a course-related trip to a hospital was killed when the 15-passenger van in which she was riding overturned. Among the factors the court considered in declining to enforce the waiver were that the institute did not offer alternative classes for students who chose not to participate in the field trip; it required students to travel in a group and prohibited use of their own vehicles; and it dictated the terms of the document students were required to sign to release the institute from liability for a reasonably foreseeable danger.

Note that some trips may include both travelers who are pursuing academic course requirements and others who are participating voluntarily. Waivers might be required for the latter group.

Charter and Rental Contracts

Chartering and renting vehicles are complex legal transactions, replete with pages of small print and terms unfamiliar to the average person. They are also transactions in which each party generally seeks to limit the amount of risk it assumes. While a full discussion of charter and rental contracts is beyond the scope of this report, we offer some general guidance that may be helpful:

- Know the company with which you are dealing. Check that it meets federal and state requirements for certification, insurance, and safety.⁵¹
- Don't select vendors based on price alone.
- When chartering a bus and driver or a plane and pilot, carefully review the contract language on indemnification. Obtain a certificate of insurance and an additional insured endorsement with adequate insurance coverage. Work with your institution's risk manager or insurance broker to put these elements into place.

In hiring a bus company, it may be useful to examine:⁵²

- Its selection criteria for drivers.
- How often and what kind of training it performs.
- How often it reviews drivers' off-the-job records.
- Its policies for long-distance travel.
- The amount of insurance it carries for passengers and property.
- Its policies for vehicle maintenance and documentation, including preventive maintenance and pre- and post-trip inspections.
- The age and type of vehicles in its fleet.
- Its emergency procedures.

Particularly for long-term contracts, it may be useful to evaluate prospective charter bus companies by traveling with them. Define your performance expectations clearly and consider developing a payment system that includes both penalties and rewards. Have legal counsel or a knowledgeable contracting officer review the agreement in advance, with special attention to indemnification and insurance arrangements. Consider, too, the prospect of subcontracting. The prime contractor may occasionally be unable to supply the full number of buses you require if, for example, some of its vehicles are out of service. Include contract provisions to prohibit subcontracting or to control and transfer the risks. (For further information on chartering buses, see "Get on the Bus for Student Activities" and the sample charter bus contract that appear on the CD accompanying this report.)

Chartering and renting vehicles are complex legal transactions, replete with pages of small print and terms unfamiliar to the average person.

⁵¹ Information on federal bus standards is available from the Federal Motor Carrier Safety Administration at www.fmcsa.dot.gov.

⁵² The National Research Council conducted a study of local governments' experiences with contracting for bus services. Localities unsatisfied with their bus contracting cited reasons such as contractor issues (47 percent of respondents); service quality/customer service (47 percent); benefits not fully realized (27 percent); not enough control (12 percent); personnel issues (8 percent); and too few bidders (6 percent). These areas may merit special attention in selection processes. See National Research Council. (2001). *Contracting for bus and demand-responsive transit services: A survey of U.S. practice and experience*. Special Report 258, p. 119. Washington, DC: National Academy Press.



In chartering aircraft, it can sometimes be difficult to establish who owns and operates the plane. You may find that a tangle of related or unrelated entities has a stake in the aircraft. Sort out the ownership before heading off. For its part, the Massachusetts Institute of Technology (MIT) requires its controller to approve any use of aircraft—chartered, rented, owned, or operated by a traveler—in advance. It further cautions that “no traveler may purport to be an agent of the Institution in entering into agreements with airports or other authorities.”⁵³

Before engaging a charter air service, the FAA recommends asking some basic questions to establish the service’s status as an FAA-certified air carrier (see “Determining FAA Certification”). If your institution accepts donated aircraft flights (for example, from alumni), determine in advance the risk transfer provisions you will require and then apply them uniformly. With support from university leaders, a consistent approach can help avoid offending alumni and potential travelers.

DETERMINING FAA CERTIFICATION

When chartering airline service, institutions should ascertain whether the charter service is an FAA-certified air carrier. Following are some questions to determine this:

Do you hold a current FAA Air Carrier Operating Certificate? ___ Yes ___ No

What is the name of the company as it appears on the certificate? _____

What is the certificate number? _____

What is the name and telephone number of the FAA Flight Standards District Office (FSDO) and who is the FAA Principle Operations Inspector overseeing your operation?

(For international trips) Is your company FAA-authorized to conduct international operations to (specify destination) _____? ___ Yes ___ No

You also have the right to contact the FSDO. The telephone number is in your local directory under “U.S. Government, Transportation, Department of.”

If the air taxi operator is unwilling or reluctant to provide the answers to the above questions, or does not want you to contact the FAA for verification, you would be wise to consider another operator to fill your travel requirements.

Source: Federal Aviation Administration. *Chartering an aircraft*. See www.faa.gov/fsdo/cle/charter.htm.

⁵³ MIT Travel Policy, Section 2.05, Private Airplane.

Insurance Types and Limits

Obtaining appropriate insurance for student transportation is as much an art as a science. The administrator responsible for purchasing insurance should work closely with the college's insurance broker and insurance carriers to obtain suitable coverage. Coverage should be tailored to the institution's exposures and appetite for risk. No one-size-fits-all solution exists.

Estimating the value of university-owned vehicles is relatively easy. Beyond insuring a vehicle as a piece of property, however, estimating appropriate limits for vehicle liability insurance is more of an art. What is the potential exposure if the vehicle causes injury to a person or damages property? Many factors affect the appropriateness of liability insurance limits. Variables include the amount and modes of travel, the current and potential income of travelers, the institution's own resources and desire to pay directly for damage, and rising health care and legal costs. Because these factors are not static, insurance limits should be reviewed regularly.

Travel on Land. The University Risk Management and Insurance Association (URMIA) has provided a useful overview of auto insurance coverage and limits in its report *Vehicle Liability: Managing the Risks*. Its suggestions include maintaining a business auto policy, potentially with Drive Other Car Coverage.⁵⁴ Automatic coverage can be arranged for a large fleet, with changes reported to the insurer annually. Definitions and exclusions require careful review by an insurance expert, who can assess protection for situations involving rental vehicles, golf carts, trucks, unregistered farm vehicles, and vehicles not owned by the college. If your institution has experimental or racing vehicles, check whether these are excluded from your auto insurance or general liability excess policies.

COLLEGE NAMES THREE HIGH-RISK ACTIVITIES

The Maricopa County Community College District has flagged three types of transportation activities as high risk, that is, meriting the highest insurance limits. These are transportation services, air charters, and ambulance services. It places auto repair in a medium-risk category, meriting significant but potentially lower limits. For more information about Maricopa's policy, see www.dist.maricopa.edu/legal/rmi/matrix.pdf.

⁵⁴ Drive Other Car Coverage would protect a driver who does not own the vehicle that he or she is driving, such as a college president who drives a university car. If the president were to borrow another vehicle from a private individual, she would be covered only by the policy on the borrowed vehicle, which may be inadequate.

The URMIA report recommends a policy limit of at least \$25 million if the institution routinely uses 15-passenger vans. It cautions: “Vehicle liability is one of the most severe risks an institution faces due to the possibility of catastrophic injuries to multiple persons arising out of the same incident. Carry the highest limits you can afford.”⁵⁵ It recommends at least \$5 million in coverage for all charter companies or other vendors providing transportation services to the institution.⁵⁶ Consider requiring charter bus companies to have uninsured/underinsured motorist coverage, as well.

How does insurance work when students and staff use their personal vehicles for college-related travel? For students, the owner’s auto policy provides the first layer of protection in case of an accident. Institutions generally have insurance to cover claims amounts that might exceed the individual policy limits. “When Students Drive Their Own Cars” quotes Mount Holyoke College’s handbook in describing the intersection of these policies. Texas A&M University warns students who drive their privately owned vehicles on university activities that their insurance is on the line: “This is a potentially large responsibility; if you are not comfortable with it, consider making other transportation

WHEN STUDENTS DRIVE THEIR OWN CARS



The following excerpt from Mount Holyoke College’s *Fleet Vehicle Handbook* explains how a student’s insurance policy may work with an institution’s policy in case of an accident:

Do I have coverage from the College if I drive my own car?

Remember: You must have written authorization from an authorized person before you drive your own vehicle on College business. If you drive your own car on College business, your own insurance policy serves as a “primary” policy for third party liability and physical damage to your vehicle. This means that if a claim arising out of an accident exceeds your policy limits, then the College’s policy will cover the accident in excess of your policy. For example, if you carry \$20,000/\$40,000 liability insurance and injure a pedestrian severely, resulting in over \$100,000 of medical bills, your policy would pay the first \$20,000 of the claim, and the College policy would respond for the balance of the claim. The College’s Uninsured/Underinsured coverage does not extend to non-owned vehicles. We recommend that you consult with your insurance agent or broker for this type of coverage.

Source: Mount Holyoke College *Fleet Vehicle Handbook*. See www.mtholyoke.edu/offices/dps/fleet/fleet2003.htm.

⁵⁵ Carmichael, Elizabeth. (2000). *Vehicle liability: Managing the risks*, p. 17. Bloomington, IN: University Risk Management and Insurance Association.

⁵⁶ Carmichael. *Vehicle liability*, p. 9. In March 2005, an informal poll asked university risk managers about the insurance limits they require for contracted bus services. The replies, from about 20 respondents, found that most required \$5 million or \$10 million in limits, with a few requiring as much as \$25 million.

arrangements.⁵⁷ Insurance coverage for staff members who use their personal vehicles for institutional business may operate the same way as for students. Alternatively, an institution might include an “Employees as Insured” endorsement in its auto policy, covering the first layer of loss for accidents involving employees’ cars. The bottom line is that an institution must closely examine, with assistance from an experienced broker, its insurance coverage and understand how, if at all, it applies to students and employees who drive personal vehicles.

Driving in a Foreign Country. Before driving an institution-owned, personal, or rented vehicle outside the United States, it is important to understand insurance coverage and meet any specific requirements of the foreign country. Most U.S. auto liability policies exclude foreign destinations, necessitating the purchase of a special policy. The U.S. Consulate in Ciudad Juarez, Mexico,

provides good suggestions about insurance for travel into Mexico:

Mexican auto insurance is sold in most cities and towns on both sides of the border. U.S. automobile liability insurance is not valid in Mexico nor is most collision and comprehensive coverage issued by U.S. companies. Therefore, when you cross the border, purchase auto insurance adequate for your needs in Mexico. A good rule of thumb is to buy coverage equivalent to that which you carry in the United States.

Motor vehicle insurance is invalid in Mexico if the driver is found to be under the influence of alcohol or drugs. Regardless of whether you have insurance, if you are involved in an accident, you will be taken into police custody until it can be determined who is liable and whether you have the ability to pay any judgment. If you do not have Mexican liability insurance, you are almost certain to spend some time in jail until all parties are satisfied that responsibility has been assigned and adequate financial satisfaction received. There may also be criminal liability assigned if the injuries or damages are serious.⁵⁸

An institution must closely examine, with assistance from an experienced broker, its insurance coverage and understand how, if at all, it applies to students and employees who drive personal vehicles.

⁵⁷ Texas A&M University. Student Travel Procedures, 13.04.99.M1.01, with accompanying explanation, “What Is This Student Travel Rule and How Does It Apply to My Organization?”

⁵⁸ U.S. Consulate General, Ciudad Juarez, Mexico. Insurance companies in Juarez. See <http://usembassy.state.gov/posts/mx2/wwwhacsinsurance.html>.

**TABLE 8: CHARTER FLIGHT INSURANCE REQUIREMENTS
LAWRENCE BERKELEY LABORATORY, UNIVERSITY OF CALIFORNIA**

Type of Aircraft Charter	Insurance Limits Required
General Aviation Aircraft with 10 or fewer seats	\$5,000,000
Rotor Wing Aircraft, not exceeding passenger and crew capacity of 10 persons or Fixed Wing Aircraft with more than 10 seats but fewer than 21 seats	\$10,000,000
Fixed Wing Aircraft with more than 20 seats but fewer than 41 seats	\$25,000,000
Fixed Wing Aircraft with more than 40 seats	\$100,000,000
Air Ambulance (Fixed or Rotor Wing), not exceeding passenger and crew capacity of 10 persons	\$20,000,000
Note: The Lawrence Berkeley Laboratory developed insurance requirements in 1998 for its use of chartered, leased, and other noncommercial aircraft. The insurance limits refer to Combined Single Limits (CSL) per occurrence, including bodily injury liability, property damage liability, and passenger liability.	
Source: Lawrence Berkeley National Laboratory. (1998, March). Aviation Policy and Procedures, p. 8. See www.lbl.gov/ehs/pub3000/aviation_policy.pdf .	

Air Travel. In 2003, URMIA recommended minimum limits of \$10 million for aviation insurance, covering all owned, hired, and non-owned aircraft, with no per-seat passenger limitation. Charter of a large, commercial-sized airplane would require higher limits.⁵⁹ If the institution owns planes, its insurance may already cover non-owned aircraft. **Table 8** shows insurance requirements developed in 1998 at the Lawrence Berkeley National Laboratory, run by the University of California, for charter airplanes and helicopters, with limits varying by the number of seats. Insurance limits recommended in 1998 should be reviewed in light of the current liability climate.

If university supporters provide private air transportation to the president, coaches, student athletes, or others, consider requiring proof of \$10 million or more in insurance limits.

⁵⁹ URMIA. (2003). *Third party contract insurance guidelines*, p. 7. One expert has noted that general liability policies for aircraft should include "smooth limits," the term used in aviation insurance that is equivalent to "combined single limit." In terms of limits, Howard University requires \$50 million for any chartered aircraft.

CONCLUSION

Equipped with this report, readers can review their policies and practices for student transportation under institutional auspices. Apply the ideas that best fit your institution's circumstances. Solidify your foundation for safe travel before, rather than after, an accident. Then, embark on a continuous process of monitoring and refining your program, which are key steps in effective risk management. Count on the fact that new research and developments will necessitate further evolution. Segways, anyone?

SELECTED RESOURCES

GOVERNMENT

National Highway and Transportation Safety Administration

www.nhtsa.dot.gov

This office is responsible for reducing deaths, injuries, and economic losses resulting from motor vehicle crashes; investigating safety defects in motor vehicles; helping states and local communities reduce the threat of drunk drivers; promoting the use of safety belts, child safety seats, and airbags; and providing consumer information on motor vehicle safety topics. Also conducts research and compiles data on driver behavior and traffic safety.

National Transportation Safety Board

www.nts.gov

This agency investigates every civil aviation accident in the United States and significant accidents in other modes of transportation, conducts special investigations and safety studies, and issues safety recommendations to prevent future accidents. Provides annual transportation fatality data, among other research.

(Your State) Department of Transportation web site

[www.dot.state.\(your state\).us](http://www.dot.state.(your state).us)

Example: www.dot.state.md.us

Individual state laws and regulations, along with other related links and helpful information are available at each web site.

NONPROFIT GROUPS

AAA Foundation for Traffic Safety

www.aaafoundation.org

The AAA Foundation for Traffic Safety is dedicated to saving lives and reducing injuries by preventing traffic crashes. The foundation funds research that is used to develop focused, high-impact educational materials for drivers, pedestrians, bicyclists, and other road users. Recent research projects have included ways to fight drowsy driving, whether pavement markings can cause drivers to slow down, and investigations of violent aggressive driving, or “road rage.”

American Driver and Traffic Safety Education Association

<http://adtsea.iup.edu/adtsea>

This professional association represents traffic safety educators throughout the United States and abroad. It is an excellent source of driver education programs, accident statistics, drunk-driving resources, young driver resources, and related resources links.

Association for Safe International Road Travel

www.asirt.org

This nonprofit, international, humanitarian organization promotes road travel safety through education and advocacy. ASIRT was founded in response to the death of a medical student, who was killed along with 22 other passengers in a bus accident in Turkey.

Highway Safety Research Center, University of North Carolina

www.hsrc.unc.edu

The center conducts interdisciplinary research aimed at reducing deaths, injuries, and related societal costs of roadway crashes. The center's research examines motor vehicle, bicycle, and pedestrian crashes, taking into account human, vehicular, roadway, and environmental factors. Its scope includes driver distraction, graduated driver licensing, the role of alcohol in crashes, elderly driving issues, occupant restraint use, roadway design, commercial vehicle safety and enforcement, as well as pedestrian and bicycle safety.

The Injury Prevention Web

www.injuryprevention.org

This advertising-free site is supported by the Center for Injury Prevention Policy and Practice at San Diego State University. It contains data on injury occurrence in each of the 50 states, prevention information, policy recommendations, and a resources section with links to government and nonprofit sites worldwide. The IPW links to groups with a focus on a large variety of fields, such as traffic safety, codes and standards, education, ergonomics, fire prevention, industrial safety, interior design, legislation and litigation, public health, product safety, and disasters.

Insurance Institute for Highway Safety

www.iihs.org

The IIHS conducts research on countermeasures aimed at all three factors in motor vehicle crashes—human, vehicular, and environmental—and on interventions that can occur before, during, and after crashes to reduce losses. The affiliate organization, the Highway Loss Data Institute, gathers, processes, and

publishes data on the ways in which insurance losses vary among different kinds of vehicles. For a look at how individual state driving laws compare with one another, check out the web site section called “How Your State Laws Measure Up.”

The National Association of Fleet Administrators, Inc.

www.nafa.org

NAFA is a nonprofit individual membership society serving the needs of professionals who manage fleets of cars, vans, buses, SUVs, trucks, and other mobile equipment. Its reports cover topics such as personal use of fleet vehicles, a safety resource guide, and a CD-ROM on benchmarking your fleet management program. Full dues are approximately \$450 annually.

National Safety Council

www.nsc.org

The NSC is an excellent source of safety and health information, including transportation resources such as software for tracking accidents. The Council compiles data and publishes reports.

Network of Employers for Traffic Safety

www.trafficsafety.org

Founded in 1989, NETS is a public-private partnership dedicated to safe driving in the workplace. In addition to hosting an informative web site, the group sells posters, brochures, web seminars, and other materials. Some are geared to a corporate setting, but others work equally well on campus, such as chocolate candies with wrappers reading “How safe is your driving?”

University Risk Management & Insurance Association

www.urmia.org

URMIA is the leading organization promoting effective risk management in higher education. It works to protect the reputation and resources of colleges and universities, providing information and professional development to campus risk managers and other administrators.

BOOKS AND REPORTS

BRB Publications Inc. *The MVR book: Motor services guide*. Tempe, AZ: Author. See www.brbpub.com.

This volume, published annually, describes itself as “the national reference detailing, in practical terms, the privacy restrictions, access, procedures, regulations, and systems of all state-held driver and vehicle records.”

Della-Guistina, D. E. (2004). *Motor fleet safety and security management*. Boca Raton, FL: CRC Press.

This serves as a readable introduction to fleet safety, readily applicable to campus vehicle fleets. Chapters include “Elements of a Fleet Safety Program,” “Driver Selection,” “Organizing Accident Data,” and “School Bus Safety.”

Kujat, J. D. (2001). *Fleet safety made easy: A simplified guide to compliance and accident prevention*. Houston, TX: Government Institutes, a division of ABS Group.

Written by the coordinator of environmental and safety services at Central Michigan University, this volume is particularly strong in explaining federal regulations. It describes, in plain English, requirements such as operating a commercial motor vehicle, transporting hazardous materials, and testing drivers for drugs and alcohol. The appendices include illustrations of traffic signs and a sample commercial drivers license exam.

National Safety Council. (1996). *Motor fleet safety manual* (4th ed.). J. E. Brodbeck (Ed.). Itasca, IL: Author.

This comprehensive volume is filled with sound advice, both commonsense and technical. Contents include topics such as: fleet supervision, driving errors that lead to accidents, vehicle purchasing, and driver selection, hiring, training, and evaluation. The book includes numerous worksheets and checklists, such as a worksheet on elements of a driving job.

Peden, M., et al. (2004). *World report on road traffic injury prevention*. Washington, DC: World Health Organization.

The World Health Organization and the World Bank jointly produced this award-winning report. The full text, in multiple languages, is available at www.who.int.

Pratt, S. G. (2003, September). *Work-related roadway crashes: Challenges and opportunities for prevention*. Washington, DC: National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.

To order a free copy, phone NIOSH at (800) 356-4674 or visit www.cdc.gov/niosh.

Zimmerman, R. & DeJong, W. (2003). *Safe lanes on campus: A guide for preventing impaired driving and underage drinking*. Higher Education Center for Alcohol and Other Drug Prevention.

The publication is available on the web sites of the Department of Education’s Office of Safe and Drug-Free Schools (www.ed.gov/about/offices/list/osdfs/index.html), the Higher Education Center for Alcohol and Other Drug Prevention (www.higheredcenter.org), and the National Highway Traffic Safety Administration (www.nhtsa.dot.gov).

Copies can also be ordered by calling (800) 676-1730.

APPENDIX A

STUDENT DEATHS IN CAMPUS-RELATED ROAD ACCIDENTS ¹			
Institution	Details	Deaths and Injuries	Date
University of Texas at Austin	Five students died while driving to an honor society conference in St. Louis. At about 9 p.m., while making a U-turn on a two-lane Missouri highway, their Toyota collided with a tractor-trailer. Investigators said none of the students was wearing a seat belt	5 deaths	March 2006
Utah State University	A 15-passenger van blew out the left rear tire, skidded, and rolled on I-84 in Utah. The group was returning from an agricultural field trip.	9 deaths (8 students and 1 instructor); 2 critical injuries	September 2005
Minnesota State University	Engineering students were riding in a van pulling a trailer with their racing car on the way to an engineering competition in Detroit. The van lost control and collided with two oncoming tractor-trailers.	3 deaths; 5 injuries	May 2005
University of Toronto	A third-year mechanical engineering student driving a solar-powered car was killed in a head-on collision with a minivan. The lightweight car was participating in a 6,800-mile tour across Canada involving six universities. It fishtailed, went out of control, and veered into the path of the minivan.	1 death	September 2004
Bainbridge College	An instructor and three students in a truck driver certification program were killed during a course when their truck, at a railroad crossing, moved into the path of an oncoming train. It was unknown who was driving at the time. All were killed at the scene.	4 deaths (3 students and instructor)	August 2004
Crown College	Three students, one alumna, and the alumna's husband were killed on a two-lane Florida highway when their van collided with an empty tractor-trailer that had drifted into the van's path and hit it head-on. The van was completely destroyed, but the tag on a trailer it was pulling enabled police to determine ownership. The group, from the independent Baptist Bible college, was visiting churches throughout the Southeast, ministering to youth.	5 deaths	June 2004
Navarro College	A van driven by the 21-year-old student assistant to the men's basketball team was returning home with the team from a game against Paris Junior College. Authorities reported that the van driver made a U-turn to follow another team van, after both had missed an exit. An 18-wheeler traveling at 53 m.p.h. slammed into the van, after trying to brake. The state public safety department released records showing that the student van driver had been cited five times for speeding and once for driving the wrong way on a one-way road in the last three years.	2 deaths; at least 5 injuries, including coach	February 2004

¹ Accidents with few victims do not generally make national news, and many institutions do not memorialize accidents on their web sites. Hence, this chart is not comprehensive. Note also that some of the injured victims may have later died and that sources used in compiling the chart may not be wholly accurate.

STUDENT DEATHS IN CAMPUS-RELATED ROAD ACCIDENTS CONTINUED

Institution	Details	Deaths and Injuries	Date
Lebanon Valley College	A car carrying the tae kwon do club was being driven by a sophomore student to a competition in North Carolina. The car veered across an interstate median and collided with two trucks.	3 deaths; 1 injury	November 2003
Boise State University	A charter bus carrying 22 members of the university's debate team crashed when a driver crossed the median into the path of the bus. The driver was killed, one student was hospitalized with serious injuries, and several other students suffered minor injuries. The accident occurred at 10:30 p.m. on a Saturday on I-84, as the club was returning from a tournament at the College of Southern Idaho.	1 death; 1 serious injury	September 2003
University of Texas at Austin	At the beginning of a six-week summer geology field course, a student lost control of an SUV after drifting out of his lane and swerving quickly to compensate. It flipped into a ditch. Only the driver was wearing a seat belt. An associate professor and a freshman, who were passengers, died at the scene. Two other student passengers were admitted to hospitals, one in critical condition. The driver suffered only cuts and bruises. The vehicle was one of six in a caravan involved in the required course.	2 deaths (1 freshman and 1 professor); 3 injuries (1 critical)	May 2003
Yale University	Students returning to Connecticut from a Delta Kappa Epsilon fraternity event in New York in an SUV driven by a student collided with a tractor-trailer in snowy and icy conditions. All victims were members or pledges of the fraternity.	4 deaths; 2 critical injuries; 3 others injured	January 2003
Wheaton College	Six students were passengers in one of three vehicles returning to Wheaton from a hockey club game at Bradley University, 2½ hours away. The game had begun at 10 p.m., when the ice was available, and afterwards, the students ate a meal. At approximately 3:40 a.m., about one hour into the trip, their van left the roadway and struck a disabled tractor-trailer on the shoulder. The other two college vehicles ahead were unaware of the accident and returned to campus. The driver in the accident had a part-time job at the college testing other students on van driving skills. He had been paid a small stipend by the hockey club to drive on this trip. A witness to the accident reported that the van driver never slowed down, nor did the witness report seeing brake lights on the van. Theories were that the driver was either asleep or distracted.	1 death; 3 severe injuries	April 2001
Utah State University	A van carrying the men's volleyball club, and driven by a student, crashed at 3:00 a.m. on I-80 in Wyoming during a snow storm. It rolled once and landed in a ditch. Front-seat passengers were wearing seat belts and suffered slight injuries. The other four victims, not wearing seat belts, were lying in the back. The team was traveling to Missouri for the Intramural-Recreational Sports Association National Championships.	6 injuries (1 critical)	April 2001
St. Olaf College	A driver traveling at 80 m.p.h. the wrong way on an interstate slammed into a car carrying college students, who were doing volunteer work over the spring break.	3 deaths	March 2001
Lindenwood University	A van carrying the men's basketball team overturned on the way to a game against Missouri Valley College.	8 injuries	February 2001

STUDENT DEATHS IN CAMPUS-RELATED ROAD ACCIDENTS CONTINUED

Institution	Details	Deaths and Injuries	Date
Emporia State University	The left rear tire blew out on a 15-passenger van, carrying the baseball team and driven by the head coach, on I-40 in Oklahoma. The van rolled once and landed in the median.	8 injuries to students who were treated and released	February 2001
University of Wisconsin–Oshkosh	A 15-passenger van, driven by a student, rolled over in Indiana, injuring the members of the men's volleyball club who were inside.	2 students hospitalized; 8 others treated and released	January 2001
Park University	The head coach of the women's soccer team was driving a rented Ford Explorer on I-70 in a three-vehicle caravan, on its way to a regional playoff. He was in the fast lane and steered left to avoid a truck that was drifting into his lane. Snow was falling. The Explorer hit some slush, flipped, and landed on the other side of the interstate, where it was hit by an oncoming pickup truck.	3 deaths (coach and 2 18-year-old students)	November 2000
University of Tennessee–Martin	A van carrying the university's baseball team was hit by a tractor-trailer.	7 students and coach hospitalized (3 in critical condition)	March 2000
Prairie View A&M University	A 15-passenger van drove off a two-lane road and rolled over several times in east Texas on a trip to Arkansas. The driver, a student athlete, had begun to pass a Jeep Cherokee, but then decided against it. Five of the 10 victims were thrown from the van. ² The group was traveling to a track meet.	4 deaths; 6 serious injuries (5 students and coach)	February 2000
Kenyon College	A swimmer was killed and 10 other members of the swim team were injured when a Ford Custom Wagon XLT, driven by a 21-year-old team member who was the coach's daughter, rolled three times on an icy road in Ohio. The teams were returning from a training trip to Florida and a meet in North Carolina. Only three of the 11 occupants were wearing seat belts.	1 death; 10 injuries	January 2000
DePaul University	A van rolled after hitting a patch of ice on a trip to a track meet in Indianapolis. The driver was the assistant coach of the women's track team.	5 injuries (1 serious)	January 2000
University of Wisconsin–Oshkosh	A van overturned in Indiana as the swim team was returning from a training trip and swim meet in Florida. A 22-year-old student was driving.	2 hospitalized; 10 others treated	January 2000
Urbana University	A van crashed into a tree as the men's basketball team was returning from a game at Findlay University (OH). Police said the driver, a graduate assistant, lost control on icy roads and crashed into a tree.	5 injuries	December 1999
Penn State University	Four charter buses carrying Penn State students crashed on encountering a thick wall of fog on an interstate just after midnight. The buses were among six charters bringing 280 students back from a shopping trip to New York City. Three of the buses smashed into one another, and the fourth hit a guard rail. A pickup truck and two cars also were involved.	2 deaths (1 student and 1 bus driver); 113 injured	November 1999

² The National Transportation Safety Board investigated the accident and found among its probable causes: the van's excessive speed, the van driver's operating maneuvers when he encountered the Jeep; and the university's "lack of oversight regarding transportation of student athletes." The NTSB also faulted the State of Texas for failing to require all occupants to use seat belts; none of the eight rear-seated passengers were using them. "Single Vehicle Rollover, Texas State Highway 43," NTSB Highway Accident Brief 02-03, at www.nts.gov/publictn/2002/HAB0203.htm. Short video clips from some victims and the university president are available from ESPN at <http://espn.go.com/gen/s/2001/0403/1166789.html>.

APPENDIX B

STUDENT DEATHS IN CAMPUS-RELATED AIR CRASHES			
Institution	Details	Deaths	Date
Midwestern Baptist Theological Seminary	A rented Piper Cherokee 180, piloted by a professor, crashed shortly after takeoff. The professor and one doctoral student intended to visit a minister in another town.	2	July 2002
Southeastern Oklahoma State University	A Cessna 152, flown by an aerospace freshman, aerospace junior, and a certified flight instructor, crashed on a routine training flight.	2	February 2001
Oklahoma State University	A chartered turboprop Raytheon King Air 200, owned by North Bay Charter and operated by Jet Express Services, crashed shortly after takeoff in Colorado after a game. The men's basketball team and associated personnel were on board.	10	January 2001
Ouachita Baptist University	An American Airlines flight crashed upon landing in Arkansas. Of 25 passengers associated with the university chorus, returning from a European trip, one singer and the conductor's daughter died.	2	June 1999
Purdue University	A twin-engine plane crashed on takeoff, killing two aviation technology majors, both juniors, and an instructor, who was an aviation-education specialist.	3	September 1997
U.S. Air Force Academy	A single-engine training plane carrying an instructor pilot and a third-year cadet crashed 40 miles from campus.	2	March 1995
Mt. San Antonio College	A single-engine plane crashed upon returning from a flying team training class 140 miles away.	3	October 1993
Syracuse University and 11 other institutions	A commercial Pan Am flight was bombed by terrorists over Lockerbie, Scotland, carrying students on a study abroad program sponsored by Syracuse.	35 students	December 1988
Iowa State University	Three student members of the women's cross-country track team, a student trainer, two coaches, and a university pilot were killed while returning from an NCAA championship. The crash was attributed to wing icing.	7	November 1985
University of Evansville	A chartered DC-3, with the men's basketball team on board, crashed into a tree on takeoff. The NTSB found the probable cause was takeoff with rudder and right aileron control locks installed, plus rearward center of gravity due to baggage loading configuration. The deaths included 14 players.	29	December 1977
Marshall University	A chartered Southern Airways DC-9 crashed while attempting to land. Victims included 37 players on the university football team, 12 coaches and staff, 5 members of the flight crew, and 21 supporters. The NTSB concluded that the plane came in too low for landing, skimmed some tree branches, and exploded upon hitting the ground. After the October 1970 Wichita State plane crash, Marshall had altered its original plans and flew in a plane deemed safer than the one initially selected.	75	November 1970
Wichita State University	One of two chartered planes carrying the football team crashed into the Rocky Mountains west of Denver. The pilot had taken a scenic route but realized that he had flown too deep into a canyon and could not gain altitude. The deaths included 14 players.	31	October 1970
California State Polytechnic University–San Luis Obispo football team	A plane crash took the lives of 16 university football team members. Broadcaster John Madden was a graduate assistant who had stayed behind to coach a junior varsity game. The crash led to his later refusal to fly to NFL games.	22	October 1960

GLOSSARY

ACE. American Council on Education.

CDL. Commercial drivers license, required by federal law to drive large vehicles. States may also impose more stringent CDL requirements.

FAA. Federal Aviation Administration.

FMCSA. Federal Motor Carrier Safety Administration

Gator. A small utility vehicle manufactured by John Deere. Different models are for use on golf courses, hilly off-road terrain, and other settings. Gators may carry passengers or tow a cart, and can reach speeds up to 25 mph.

GPS. Global Positioning System.

IIHS. Insurance Institute for Highway Safety.

IFR. Instrument flight rules, the more rigorous of two levels of pilot certification. Under IFR, the pilot relies on aircraft instrumentation. *See also VFR.*

Mini-Baja. A small off-road vehicle designed by engineering student teams for competition.

MVR. Motor vehicle record. An MVR, issued by the state which issued an individual's drivers license, shows the driver's history of driving infractions.

NCAA. National Collegiate Athletic Association.

NHTSA. National Highway Traffic Safety Administration.

NIOSH. National Institute for Occupational Safety and Health.

NTSB. National Transportation Safety Board.

SAE. Society of Automotive Engineers.

UE. United Educators Insurance.

URMIA. University Risk Management and Insurance Association.

VFR. Visual flight rules, one of two levels of pilot certification. Under VFR, pilots navigate by visual contact with objects on the ground.

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ABOUT THE CD-ROM

- Accompanying printed versions of this report, readers will find a CD-ROM of supplemental materials.

The supplemental materials consist of:

- Oklahoma State University Policy and Procedures on Team Travel
- Dartmouth College
 - Student Driver Policy
 - General Driver Policy
 - Motor Vehicle Records Program: Unacceptable Motor Vehicle Record Criteria
 - Procedures to Appeal Denied Approved Driver Status
 - Guidelines at a Glance for the Use of College-Owned or Leased Vehicles
 - Use of Private Vehicle Authorization by Owner
 - Employee Procedures
- Mount Holyoke College Fleet Vehicle Handbook
 - Fleet Vehicle Policy
 - Fleet Vehicle Drivers
 - Fleet Vehicle Operations
 - Appendix
- Sample Driver Vehicle Inspection Form
- Sample Accident Report Form
- “Get on the Bus for Student Activities” Safety Dispatch from United Educators
- Charter Bus Contract Sample from Stephen F. Austin State University

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