Fifteen-p refr towards the safety of all passengers, it is important that drivers receive training in the safe operation of these vehicles, frequent maintenance is performed to ensure that the vehicle is in good condition and all passengers are restrained in seat belts.

Increased Risk of Rollover Crash
Research by the National Highway Traffic Safety Administration (NHTSA) has found that the risk of a rollover crash is greatly increased when 10 or more people ride in a 15-passenger van. This increased risk occurs because passenger weight raises the vehicle’s center of gravity and causes it to shift rearward and upward. As a result, the van has less resistance to rollover and handles differently than other commonly driven passenger vehicles, making it more difficult to control in an emergency situation. NHTSA also concluded that vans with 10 occupants had a rollover rate nearly three times the rate of those that were lightly loaded. When carrying the full load of 15 passengers, the vans were almost six times as likely to roll over. Placement of any load on the roof also raises the center of gravity and increases the likelihood of a rollover.

A rollover crash is a complex event, heavily influenced by driver and road characteristics, as well as the design of the vehicle. In studies of single-vehicle crashes, NHTSA has found that more than 90 percent of rollovers occur after a driver has lost control of the vehicle and run off the road. Three major situations can lead to a rollover in a 15-passenger van:

• The van goes off the road. If this occurs, the van is likely to overturn when it strikes a culvert, ditch or embankment, or when it is tripped by an object or digs into soft soil.
• The driver is fatigued or is driving too fast for conditions. A tired driver can doze off and lose control. The driver can also lose control when traveling at high speed, causing the van to slide sideways off the road. The grassy or dirt medians that line the highways can often cause the van to overturn when the tires dig into the dirt.
• The driver overcorrects the steering as a panic reaction to an emergency or to a wheel dropping off the pavement. Especially at freeway speeds, this situation can cause the driver to lose control, resulting in the van sliding sideways and rolling over.

Federal Statistics
It is estimated that 500,000 15-passenger vans are currently in use in the United States. The death rate for all occupants in this type of van is higher than for all other passenger vehicle types combined (cars, minivans, pickups, and SUVs). This is largely because 15-passenger vans tend to have much higher occupancy rates, so more people are at risk of dying when a crash occurs. Accordingly, federal law now prohibits the sale of these vans for school-related transport of students in high school or younger. There is, however, no prohibition for college-age students or passengers using the van on matters not related to school (e.g., church groups, community activities, private businesses, etc.).

Seat Belt Use
According to the NHTSA the quickest and easiest way to reduce the number of injuries and fatalities sustained
in 15-passenger van accidents is to require the use of seat belts for all occupants. Their data on accidents for this type of vehicle is clear: 80 percent of the fatally injured occupants in rollovers were not wearing their seat belts. People who are restrained are about 75 percent less likely to be killed in a rollover crash than people who aren’t. In a similar fashion, the Insurance Institute for Highway Safety reported data for a five-year period focusing on all 15-passenger van accidents: 74 percent of the fatally injured occupants were not wearing seat belts. Among the fatally injured occupants who were not restrained, 62 percent were fully ejected from the vehicle. In short, if the vehicle is in motion, all occupants should be wearing a seat belt.

Vehicle Maintenance
Maintaining 15-passenger vans in good condition is another way to reduce the likelihood of a serious accident. Many of the vans involved in rollover accidents are seldom driven any distance and are often left in parking lots for extended periods of time, subjecting them to weather and sun damage. Vehicle owners should understand that nonuse of the vehicle requires additional maintenance beyond the normal, mileage-based schedules. Particular care should be taken to confirm the tires remain in good condition. Although the tires may have substantial tread, extensive periods of sitting in parking lots often causes loss of tire pressure, and even crack development in the sidewalls of the tires. The needed tire pressures in 15-passenger vans are much higher than those required for passenger cars, and underinflation increases both temperature and sidewall flex, increasing the likelihood of a blowout. Organizations should consider developing a pre-trip and post-trip inspection checklist to ensure the vehicle is in good condition before and after use.

Driver Training
As previously discussed, many serious accidents are caused by the driver’s unfamiliarity with the handling characteristics of the vehicle, especially in emergency situations. Drivers of 15-passenger vans tend to be occasional drivers who lack the daily driving experience necessary to prepare them for emergency situations. For this reason, drivers need to receive training before they are given the keys to the vehicle. Training emphasis should be placed on the different handling characteristics of the vehicles from passenger cars and the different safe operating limits for the vans. Training should emphasize the appropriate pre-trip inspections and other maintenance topics. Drivers should be taught about conditions that call for slower speeds, including: higher occupancy, heavier cargo, curved roads, adverse weather conditions and high-speed rural highways (especially two-lane). Finally, drivers should insist that all passengers wear seat belts.

Alternative Types of Transportation
The National Transportation Safety Board (NTSB) has stated that the best way to maximize passenger transportation is for organizations to use school buses or buses built to equivalent occupant crash protection standards. Unlike 15-passenger vans which have no required crash protection attributes, large school buses, small school buses and motor coaches all have standards for crushworthiness, including joint strength and roof-rollover protection. The NTSB recommends purchase of a small school bus-type vehicle if 15-passenger transport is needed.

If purchasing school buses is not practical, organizations can: 1) purchase two minivans that are likely to be used more often; 2) purchase one minivan and rent one for rare trips requiring more passenger capacity; 3) not purchase at all, but rent two minivans in place of one 15-passenger van; or, 4) charter a bus with a driver for infrequent trips. Depending on the organization, each option has unique advantages and can be an economical alternative.

For Additional Information

Insurance Institute for Highway Safety: www.iihs.org

EMC Insurance Companies: www.emcins.com
- Tech Sheets: Fleet Safety Program
- Safety Tools & Resources/Forms: Fleet/Vehicle Self-Inspection Report