

Vehicle Selection for Human Services Organizations

NHTSA found 15-passenger vans manufactured prior to 2006 had a significantly higher roll over rate than other vehicles. While additional safety features have been added to 15-passenger vans, organizations should continue to follow NHTSA guidelines when operating them.



Many health and human service providers offer transportation services for the people served by their program. Vehicle selection plays a vital role in the safety of those passengers. Proper vehicle selection provides a better outcome through increasing safety, reducing company liabilities, and contributing to the efficiency of your organization.

Are 15-Passenger Vans the Best Selection?

When evaluating fleet needs, the selection of 15-passenger vans is often times the first choice, but is it always prudent? The National Highway Traffic Safety Administration (NHTSA) found significant problems with vans manufactured prior to 2006.¹ 15-passenger vans filled with 10 or more occupants were almost three (3) times more likely to roll over in an accident than other passenger vehicles. These vehicles tended to be less stable with a higher center of gravity which increased with the additional weight of each passenger and any cargo. Higher levels of instability make the van more likely to lose control with unsafe speeds, turns or tire blowouts.

The auto industry continues to develop technologies like electronic stability control in 15-passenger vans (standard feature by model year 2006) and tire air pressure monitoring. NHTSA has not conducted any follow-up studies related to the safety of new passenger vans with these additional safety features but the frequency of roll-overs appears to have diminished.

¹National Highway Transportation Administration, Analysis of Crashes Involving 15-passenger Vans, DOT HS 809 735, May 2004.

According to NHTSA and the American School Bus Council, passengers are about 70 times more likely to get to the destination safely when taking a bus instead of traveling by car or van.

Organizations should continue to follow NHTSA safety recommendations when using 12- and 15-passenger vans. The rollover of a 15-passenger van would be devastating to the people served, families and staff while critically impacting a provider's reputation for giving safe care.

Evaluating Provider Needs

15-passenger vans might be one of the choices for a provider's transportation needs, but before that selection is made, each provider should complete their due diligence. The best vehicle choice cannot be made until the uses are fully known.

QUESTIONS TO CONSIDER:

- What are the client and transportation needs (transportation of children in line with state child occupant laws, Americans with Disabilities Act accessibility, or wheelchair securement)?
- How many passengers will be transported through regular routes?
- In addition to passengers, are there cargo transportation needs?
- Where will the vehicle be used (roadway, turning and speed conditions)?

Once a provider understands their overall needs, an evaluation on the best vehicle for transporting their clientele safely and efficiently can be completed. Is a 15-passenger van the optimal choice, or will a minivan, SUV, or bus serve the task better? Consider the following...

- If transporting 2-8 passengers, a minivan or SUV with strong Insurance Institute for Highway Safety (IIHS) and NHTSA crash ratings* could potentially be a safer and more economical choice.
- If transportation of nine or more passengers is needed, a mini-bus provides safer travel than a 12- or 15-passenger van. According to NHTSA and the American School Bus Council², passengers are about **70 times more likely** to get to the destination safely when taking a bus instead of traveling by car or van. The higher rate of safety is due to safety features, dual rear wheels, steel cage construction, higher safety rating and increased head room among other features.
- If transporting preschool and school-age children, it is recommended a mini-bus, minivan, or passenger vehicle be used per NHTSA guidance. Organizations should also follow federal, state, and local guidance for proper passenger securement including car seats.
- If wheelchair transportation is needed, consider an adaptive/conversion minivan with side-entry or rear-entry for adequate and safe transportation. If the transportation of multiple people is required, an ADA compliant wheelchair bus with lift, ramp or kneeling suspension is a safer option.

*To analyze vehicle crash and safety ratings, go to <https://www.nhtsa.gov/ratings>

²National Highway Transportation Administration/National School Bus Council, Schoolbus-facts.com, Safety Features of the School Bus.

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- If transportation occurs at speeds over 50 miles per hour, consider vehicles with lower profiles and decreased risk of rollovers. The NHTSA study found that pre-2006 15-passenger vans are five times more likely to rollover with high speed travel (50 mph or above) compared to lower speed rates.

There are many factors to consider with transportation needs, but only when all the information has been analyzed can the best vehicle be chosen.

Safety Feature Selection

In addition to choosing the right type of vehicle, an organization should select vehicles with appropriate safety features. The following are considered best practice, particularly for 15-passenger vans.

- Electronic stability control
- Anti-lock brakes
- Traction control
- Front & Side Curtain Airbags
- Shoulder restraints for all passengers
- Tire pressure sensors (according to NHTSA, 11% of 15-passenger van crashes were attributed to tire failure)

Along with those features, the auto industry continues to develop newer technologies that potentially increase safety for all individuals in the vehicle. Investing in these features, including driver assist technologies, is a long-term benefit for a fleet. As an example, NHTSA estimates that one-third of all police reported crashes involved rear-end collisions. These rear-end collisions have resulted in 1,700 lives lost and 500,000 injuries per year. According to the Insurance Institute for Highway Safety (IIHS)³, **an investment in a front-collision warning system with autobrake reduces front-to-rear crashes by 50%**. That is a real return on investment!

Further overview of available or emerging driver assistance technologies include:

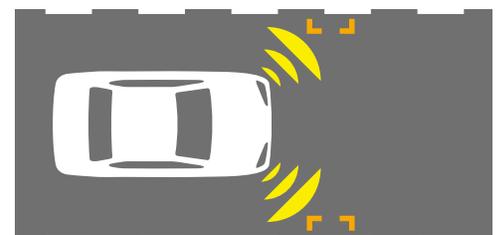
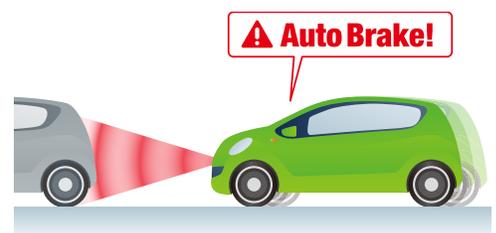
AUTOMATIC EMERGENCY BRAKING

- Automatically applies the brakes when the vehicle senses a possibility of a collision in front of the vehicle. This feature is sometimes paired with the forward collision warning feature to give the driver audio and visual warnings.

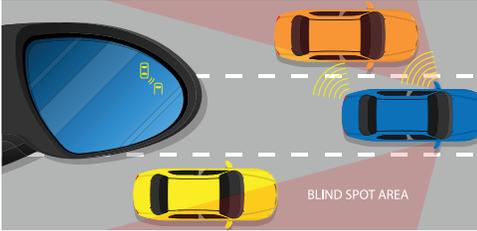
LANE DEPARTURE WARNING AND LANE KEEPING SUPPORT

- Alerts the driver when the vehicle is leaving their current lane.
- Provides corrective steering and braking for the driver to maintain their driving lane.

Front-collision warning systems with autobrake reduced front-to-rear crashes by 50%.

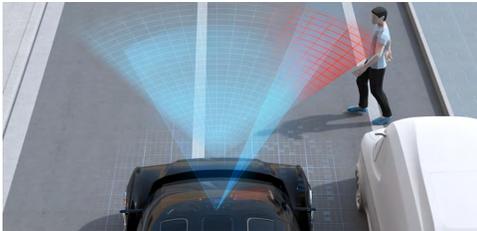


³Insurance Institute for Highway Safety, Advanced Driver Assistance, February 2020



BLIND SPOT DETECTION

- Assists drivers during lane changes by warning of other vehicles in blind spots. These warnings are typically located visually on the vehicle's mirrors.



PEDESTRIAN AUTOMATIC EMERGENCY BRAKING AND AUTOMATIC EMERGENCY BRAKING

- Applies the brakes automatically when the vehicle senses pedestrians are in the vehicle's forward path of travel.
- Applies brakes automatically when obstacle is detected while backing.

Vehicles and driver assist technologies will continue to improve, so it is critical to invest the time, research and capital in finding the right solution for your organizational transportation needs. The right choice helps ensure the safe and efficient transportation of all occupants.

Visit the following NHTSA sites for more information on the latest vehicle safety technologies:

- [NHTSA Driver Assist Technologies](#)
- [Safercar Driver Assist Technologies](#)

Additional Resources:

Log into [MyLossControlServices.com](#) for additional resources on large passenger vans.

[NHTSA 15-Passenger Van Safety](#)

[School Bus Safety](#)

[School Bus Safety Features](#)

[National Safety Council - Accident Cost Estimating](#)

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