



OFFICE OF FINANCIAL MANAGEMENT

LOSS PREVENTION REVIEW TEAM

**ASSESSMENT OF
15-PASSENGER VAN ROLLOVERS**

REPORT TO THE DIRECTOR OF THE OFFICE OF FINANCIAL MANAGEMENT

OCTOBER 2005

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SECTION 1 - INTRODUCTION

State colleges and universities face unique risks in serving a diverse student population, with many who are just beginning to gain experience and common sense. As any parent buying insurance for their teens knows, the class of drivers in their late teens and early twenties is statistically deemed a “riskier” group than more mature drivers. As any college graduate or enrollee or parent of a college enrollee knows, athletic events and off-campus activities are a core part of many collegiate experiences. Transportation is key to being able to enjoy these events, since the cost of insurance or lack of a car often prevents students from having private transportation. Many schools rely on 15-passenger vans which they own to transport athletes and students.

This report analyzes the root causes of two 15-passenger van rollover accidents involving transportation of students to off-campus events. Since 2001, when the National Safety Transportation Board issued its first of four warnings about the propensity of 15-passenger vans to rollover, public entities as well as many non-profit organizations have struggled with balancing the safety of passengers and the unquestioned benefit of being able to provide cost-efficient transportation to sporting and educational events off-campus. This Loss Prevention Review Team report traces the history of the state’s efforts to warn agencies about the risks of the vans, enact and encourage safety policies and practices, and reviews the resulting driver training program available at one of the colleges to student drivers, which is similar to the one taken by the older, employee-driver at the other school.

The goal of the review team was to ascertain the “lessons learned” from the accidents, determine the adequacy of current risk reduction strategies, and make appropriate findings and recommendations. Based on their analysis, the team’s primary recommended solution is to phase out use of the 15-passenger van by colleges and universities for passenger transportation. This solution seems the best way to balancing the safety and benefit concerns related to using the vans.

The Program

The Loss Prevention Review Team (LPRT) program is a risk management tool designed to help agencies identify and address the root cause of incidents that resulted in death, serious injury or other types of substantial loss. The Director of the Office of Financial Management (OFM) selects incidents for review, and appoints a team of between three and five citizens to perform the root cause analysis, and offer recommendations to mitigate or prevent the type of incident being analyzed. The statutes¹ establishing the program require agencies to subsequently develop an implementation plan based on the recommendations, which OFM helps the agency accomplish. OFM also tracks the type of incidents reviewed for changes in frequency and severity subsequent to and during implementation of the agency’s plan.

¹ RCW 43.41.370 and .380.

The LPRT reports are case studies, and in many instances, the recommendations identify areas related to the root cause of the incident that need further empirical development by the agency before a clear cost-benefit to effecting change is established. In some situations, due to legislative or regulatory changes, the framework within which the agency operated at the time of the incident changes between the incident date and the LPRT report date. The LPRT notes such circumstances, and I analyzes the possible impact the changes would have had on the incident(s) being examined. The LPRT does not assess the fiscal impact of any recommendations, because the analysis necessary for that can only occur when the implementation plan is selected. The specifics of that are left up to the agency.

Root cause analysis examines the environmental, cultural, procedural and behavioral factors that contributed to an event. The process' goal is to identify the headwater of a problem so that it can be addressed there. Hopefully, the review recommendations prevent future problems, so that the agency deals with the root cause, and isn't simply responding to the incident at its point of overflow into a problem, and "mopping up" the sequellae.

This Review

The Director of OFM appointed the following team to perform this review:

- **William Henselman:** Risk Manager for the Washington State Department of Transportation (WSDOT). William has a BS in psychology/business from Lewis & Clark College, and a MBA in finance from the University of Oregon. He retired from the US Air Force in 1984 as a Major. His state service career began in 1984 with the State Auditor's Office, and he joined WSDOT as their Chief Accountant in late 1986. After a series of other WSDOT jobs, he was appointed as WSDOT's initial Risk Manager in late 1990, and has since provided those services for WSDOT (historically the third largest liability exposed agency in the state's self-insurance liability program).
- **Chris MacKersie:** Director of Safety & Security, Pierce College District. Chris has a bachelor's degree in business administration from University of Washington and has worked at Pierce for 13 years. He is responsible for security, safety, and parking operations, in addition to being one of the district's risk managers.
- **Carolyn Newcome:** Vanpool Program Supervisor for Intercity Transit (the transit agency in Thurston County), managing a program with 100 commuter vanpools and 350 volunteer vanpool drivers. Carolyn started her transit career as an operator for Intercity Transit in 1984. After doing an internship in the marketing department she moved into commuter services as a ridesharing specialist vanpool coordinator. She completed her BA degree in community studies at The Evergreen State College in 2001. In 2002, Carolyn was promoted to Program Supervisor.

To reach their conclusions, the team examined policies and procedures from Washington State University (WSU) and Columbia Basin Community College (CBCC) related to transportation of students and program participants in 15-passenger vans. The team reviewed documents prepared in association with the incident, and spoke with other investigators about the incident. The team also visited the accident site of the WSU incident. They interviewed individuals from both institutions who either participated in the incident, provided or oversaw driver training, and who were responsible for risk management at the schools and for the state. They researched the current literature regarding 15-passenger van safety, and the practices undertaken by other educational institutions and states to address the safety concerns related to the vehicles.

The University and Community College reviewed the report and provided comments on the factual content to the team. Revisions were made where appropriate, and if the school raised a question of the team's interpretation of the facts, with which the team didn't agree, it is noted in the report.

Report Summary

Review Team Objectives

Objective 1: Assess the structural, operational, educational and other weaknesses that contributed to the 15-passenger van rollover accidents.

Key Findings

- The state SAAM policy regarding 15-passenger van use did not distinguish between typical agency use and educational institution use of the vans when establishing its operating criteria. Although OFM views the SAAM policies as minimum standards, agencies view their obligation as met if they comply with SAAM.
- Successful completion of the training program at WSU for 15-passenger van operators does not sufficiently affect driver behavior to achieve safer vehicle operation.
- WSU's driver training program is well thought out on paper, and has a process designed to screen out careless drivers. It complies with the SAAM manual standards.
- WSU's implementation of its driver training program doesn't follow its written outline, most probably due to a change in the sports club program organization after the accident.
- Driver experience does not translate to necessarily safer operation of the vehicle. The Columbia Basin driver had over twenty years of behind-the-

wheel experience, and still operated the vehicle in an unsafe manner for the type of vehicle, and weather conditions. He had also completed a driver training course offered by a public transit system, but had not had a refresher course or behind-the-wheel observation and training, similar to the experience of the WSU van driver.

- Oversight of 15-passenger van operation ended in both institutions with the training program taken by its drivers. Other aspects of safe van operation were left to the discretion of the driver.
- WSU students in the sports club program violated program rules about drinking, use of university vehicles after an event, and safety rules for having a back-up driver. These violations resulted in a distracting environment for the student driver, peer pressure on her to driver faster to get them home after a long day of soccer and partying, and a backup driver who was intoxicated and unable to help the driver who was tired, and who had a headache.
- Neither driver enforced safety belt usage requirements. In the WSU event, two people were in the front passenger seat. The passenger claiming the most severe injuries was one of these occupants.
- General Administration continues to offer 15-passenger vans to educational institutions, which infers they are acceptable for use. Coordination of safety/risk considerations in relation to procurement is not currently part of the agency's program.
- The rental agency providing the van to Columbia Basin did not comply with the SAAM safety requirements for van operation, as key hangtag information was not available on the van, tire pressure and operator experience were not questioned.
- The WSU van was incorrectly loaded, as it carried equipment in the area where the bench seat was removed, in contravention of the NHTSB and hangtag recommendations. This increased the likelihood of a rollover accident.
- WSU didn't evaluate the tire pressure on the van after the accident to determine whether it contributed to the event.
- The county sheriff's department did not cite the driver of the WSU van. This negatively impacted WSU's ability to address the incident with other sports clubs, and sent a message to other drivers that did not reinforce safety considerations.

- WSU took swift and clear action against the sports club for its violation of the rules. Other sports clubs are aware of the action, and it appears to be having a deterrent effect for similar behavior.
- Columbia Basin took swift action to prohibit the use of 15-passenger vans in the future. This is an effective risk-reduction strategy.

Key Recommendations

- Revise the SAAM manual to prohibit educational institutions from the use of 15-passenger vans to transport students to off-campus events.
- Amend procurement policies to preclude the availability of 15-passenger and 12-passenger vans for transportation of people.
- Both universities and community colleges, operated by the state of Washington should institute a phase-out program for the fleet of 15-passenger vans currently in use. Where possible, immediate termination of 15-passenger van use should be instituted.
- If a phase-out program is used, establish a verifiable program to ensure that drivers are reminded -- each time they use the van -- of the risk of speeding on rural roads in 15-passenger (and 12-passenger) vans, that tire pressure is at the safe levels, and that the area behind the seats is not used for carrying equipment.
- Offer behind-the-wheel training time to drivers during the phase-out period, and create incentives for them to take advantage of the offer.

Objective 2: Identify best practices for use by the State in relation to similar incidents or related programs.

Key Findings

- The National Transportation Safety Board (NHTSB) warnings did not result in changes in state policy as reflected in the SAAM manual. Agencies assumed that by complying with SAAM, they were adequately addressing the risk posed by 15-passenger vans.
- One-time training was offered to each driver. WSU has a refresher program mandated every two years for student drivers, which is a good approach. Enforcement processes to ensure the refresher is taken don't capture all drivers.
- Transit vanpool driver programs experience low loss ratios for 15-passenger van use. The element present in their training programs that was missing from the WSU program is behind-the-wheel observation and training. In

addition, most vans in these programs are operated on city streets and freeways, not on the rural roads where both these (and most) 15-passenger van accidents occurred.

- Nationally, most educational institutions are phasing out or prohibiting use of 15-passenger vans for off-campus transportation.
- The NHTSB recommends that the same restrictions apply to 12 passenger vans, and specifically notes that the safety features added by manufacturers do not affect the risk posed of rollover, only the potential survivability of the occupants if they are correctly belted in.

Key Recommendations

- These findings about best-practices support the recommendations made by the review team.

SECTION 2 - INCIDENT SUMMARIES

This section summarizes the two incidents that triggered this review. One involved a WSU van, the other a van rented by CBCC. The incidents have two common factors: both involved 15-passenger vans that experienced a rollover event, and the vans were used as a result of a program sponsored by a Washington State agency.

Washington State University

Sports Club Federation

WSU sponsors 25-26 sports clubs through its recreation department for which the university provides some administrative support, and 40 percent of the club funding may be provided using a matching formula. The organization is known as the Sports Club Federation, an organization with formal by-laws run by its members. The club allows WSU students to participate in a variety of sports, including the women's rugby team that was involved in this incident.

WSU Oversight of the Program

At the time of this incident, WSU supported the program through a sports club coordinator. In 2004-05, WSU reorganized the program. Currently, four university positions staff the sports club program. Team member dues pay for entry fees, practice time, transportation and other fees. WSU pays for the administrative infrastructure supporting the program. This includes one individual employed by WSU with specific risk management duties.

Team Leadership

Each team elects a president from its ranks, and the WSU's Sports Club Coordinator ensures each president understands the Sports Club Federation rules. Presidents receive a handbook and DVD to review, which includes information about use of university vans for transporting teams. The president is not paid. WSU provides the club officers with training for the various responsibilities they have, one of which is supervising the team.

The coach is also selected by the team, and is neither paid for nor provided by WSU. Coaches must attend all meets, practices, and competitions. While presidents of clubs must be WSU students, coaches do not have to be. By policy, coaches not affiliated with WSU as student, faculty or staff, must travel on their own rather than in university owned or paid for vehicles. For this reason, unless the coach is also a player, coaches are not allowed to ride in university vehicles. For the women's rugby team, the coach was a student-player, and for that reason was in the van. The University Recreation Risk Management Manual charges the coach with supervision of the team [Source: University Recreation Risk Management Manual at 51].

Currently, all coaches are either registered volunteers or paid coaches. Registered volunteers with the University are either allowed to travel in vehicles on official university business. [Source: WSU comments to draft report].

Both the Sports Club Federation Council, made up of students, and the University Recreation Department can impose sanctions or control over the teams. For example, both entities sanctioned the women's rugby team after this accident. The Council sanctions for sports club violations. The WSU's Office of Student Conduct handles violations of the student code of conduct.

Transportation to Events

Team travel is primarily limited to sporting events in the Northwest. Team members may use private vehicles, university owned vehicles, including 15-passenger vans, or charter a vehicle. Most teams use one of seven 15- passenger vans dedicated to University Recreation for travel. The team was informed that two vans are primarily reserved for Sports Club Federation travel.

If one of the University Recreation vans is unavailable, a newer van from the motor pool may be used. The motor pool maintains all vans. University Recreation staff policy requires them to check tire pressure and vehicle condition at regular intervals. Student drivers are required to check tire pressure and vehicle condition before each trip. Each van needs two certified drivers – one driver, and one as a reserve, or backup driver.

Sports Club Rules of the Road

The University Recreation Risk Management Manual sets forth the rules for transporting sports club teams to events. Whether driving private vehicles or a university owned van, the manual states that student drivers must complete the van driver training requirement, have proof of minimum insurance and follow all policies and procedures for use of state vehicles.

If a van is used, the driver must be certified through WSU's Sports Club Federation program. This same certification program requirement applies to driving any motorized vehicle for federation purposes.

Certification is a three-pronged process. First, the driver must possess a valid driver's license (any state, not just Washington), be at least 18 years old with over two years driving experience, and possess a valid proof of insurance. Second, the driver must provide a driving abstract to allow WSU to evaluate the citation and accident experience of the prospective van driver. Third, the driver must successfully complete the van driver training module.

Once these prongs are satisfied, the driver must sign the Safe Driving Practices Acknowledgement statement [Source: WSU Safety Policy and Procedures Manual, Motor Vehicle Safety S35.10.1 Revised 11-03] (see www.wsu.edu/~forms/manuals.html). This form was developed by the state's risk management office. It is included as part of the State Administrative and Accounting Manual (SAAM) policy requirements for driving 15-passenger vans (see Appendix A).

Prospective drivers complete the van driving module before offering the proofs and driving abstract. Until all three prongs are satisfied, drivers are not eligible to drive and students sign a form indicating they understand this. For the time frame relevant to this incident, the Sports Club Coordinator taught the class. Today, one of two trainers offers the class.

The training takes place in a classroom accommodating up to 50 students. The video "Coaching the Van Driver II" is used. The National Safety Council's FLI Learning Systems created this video, and it is the most commonly used training tool associated with 15-passenger van driver training. The video is partially interactive, allowing the trainer to discuss certain aspects with the students. At the end of the class, students take a twenty-question test, and must receive a score of 80 percent or better to pass. According to a current trainer, the focus of training is getting waiver forms signed, and distributing the handbook "Defensive Driving."

Students may ask for time behind the wheel, but it is not part of the training. The one exception is when a trailer is used. If a trailer is pulled by the van, the driver must go through a hands-on trailer driving session [Source: University Recreation Risk Management Manual, January 2004, vers.1].

If successful in the class, the passing student allows WSU to obtain their driving abstract, and provides copies of the other required documents. WSU official policy is to evaluate the abstract using the criteria contained in the University Recreation Risk Management Manual. The same criteria are outlined in the Safe Driving Practices Acknowledgment Statement signed by the prospective driver. Any of the following criteria disqualifies a prospective driver: within the past three years any suspension for reckless driving, hit-and-run, leaving an accident scene, failure to appear, DUI or other vehicle related felony, or multiple traffic offenses; four moving violations/infractions in 12 months or five in 24 months resulting in a conditional status driving record, or subsequent suspension/revocation of license, or six or more moving violations in a 12-month period resulting in license suspension.

During interviews, the LPRT learned that the staff responsible for evaluating the abstracts were not uniformly familiar with this standard. In interviews, they said they looked at the abstract and used their judgment, disqualifying someone if the prospective driver had one major or three or more violations on their record in the last three years. The Associate Director of the program is currently responsible for the final review and approval of drivers. According to the interviews, all staff felt they contributed to the decision to certify drivers at the abstract review stage of WSU's process.

Of the 120 people in the last year, not even 50 percent were certified, primarily because the students did not provide proof of licensing or access to their abstract. Of the 50 percent submitting an abstract, WSU staff recalled five people being turned down. The team information was limited to the staff recollection, as the abstract information and decline information is not recorded. The LPRT was told that one declined applicant had five speeding tickets since 2002; by contrast, one applicant had an accident in 2000 and was allowed to drive.

WSU policy requires students to supplement certification with new information, provided on a voluntary basis. Every two years, drivers must be re-certified using the entire process. Most drivers begin as sophomores, according to team members and WSU staff interviewed.

The WSU process for driver certification complies with the state SAAM manual.

Checking out the Van

Vans are reserved through the WSU administrative staff by the club presidents. Students prefer the motor pool vans because they are newer and drive better.

The student drivers are supposed to check the air pressure and lights, and evaluate the van for dents, dings, mileage and a first aid kit. Most drivers note the dents and dings; the other factors are assessed based on word of mouth from the person providing the keys to the driver at the time of pick-up. Drivers are presented with an 18-item vehicle checklist to complete before leaving on a trip.

The 15-passenger vans have been reconfigured by taking out the back bench. This is in accordance to the National Highway Transportation Safety Board (NHTSB) advisory recommendations. According to regulations, nothing is supposed to be stowed there. This is because the NHTSB study of 15-passenger van safety advises that everything in a van be carried ahead of the rear axle, to reduce the van's propensity to rollover.

Operating the Van

University Recreation and State policy charge the driver with confirming passengers are using their seat belt [Source: State Administration and Accounting Manual (SAAM) Policy: 70.40.32 May, 2003 Appendix A; Safe Driving Practices Acknowledgement Statement, Appendix A]. The drivers interviewed said the training did not stress the driver's responsibility for seat belt use, and that they did not enforce passenger use of seat belts. While the driver interviews were limited in number, the driver was presented to the team by WSU as representative of its student drivers in the sports club program. If there is a question about what the training emphasizes, perhaps participant surveys would be useful to the university to improve or adjust training to the desired focus.

The SAAM policy in place at the time of the incident required state-owned vans to use a hangtag in the vehicle. The hangtags were modeled on those crafted by the NHTSB providing additional safety information for 15-passenger van use². WSU's vans did not have hangtags in the van, although they do now, in addition to 15-passenger van rollover warning cards. Students reported that they do not read the hangtag, but simply remove it.

In the video training, drivers are also cautioned to drive 15-passenger vans at "reduced speeds." Other safety practices are stressed, including lengthening the distance between vehicles to accommodate the van's longer stopping distance, and trying to avoid over-correcting for skids, slides or taking a curve. Compensating for poor weather is also discussed, which requires slower speeds and paying attention. Drivers are cautioned to use additional care if they are on an unknown or any rural road.

Sports club guidelines require teams to attend the games, and return within a certain time frame – typically four hours and definitely no more than ten. This is commonly the case, but is framed as a guideline rather than a rule. WSU approves an itinerary for each trip, which includes a return time. WSU rules limit actual driving time for all drivers to 10 hours in a single day. As a result, when some venues are further away, required driving break intervals are imposed. Travel time is restricted to between 6 a.m. and midnight. Alcohol use and transporting non-team members are prohibited.

The Accident

The women's rugby team played its next to the last match of the season in Ellensburg on March 6, 2004. A different player than the driver completed the pre-trip checklist

² The NHTSA has since revised its recommended hang tag format, but the earlier version is the one still recommended for use by the state of Washington.

form for the van when she picked the van up on March 5, 2004. The tires were checked for inflation according to the checklist. The person checking the van out was also an authorized driver.

Rugby culture involves socialization between the two teams after matches. The team attended a party at a private home hosted by the other team. Based on the blood alcohol levels and statements by individuals at the scene after the accident, team members were drinking during the day. Team members admitted that they drank at the party, which they left some two - three hours before the accident. Team members denied drinking while on the road or at rest stops.

The student driver, who was one of the youngest members of the team, did not attend the party. The backup driver, who was also the coach, did attend the party, and blew a blood alcohol over the legal limit at the scene of the accident. The driver had a headache, and slept in the van while her teammates were socializing. The driver was certified, and her prior driving experience was using a smaller vehicle, a Pontiac Sunbird. The driver had driven vans during the rugby season, so this was not her first time behind the wheel. It was the next to the last scheduled game for the team.

The post-game party lasted from 2:30–5:00 p.m. All but the club president and several other members, who traveled in a separate vehicle, got in the van. The team's gear, which included gym bags for each member, knapsacks with personal items and clothing change, and soccer equipment, was piled in the area where the rear bench seat was removed. The team started back to Pullman at the end of the party. At approximately 8:15 p.m., the accident occurred. The team made one stop between the party and the accident scene.

The accident occurred at Sommers Road, which is very close to Pullman in Whitman County. Sommers Road has very tight curves in places. The scene of the accident involved three very tight curves over a distance of about a mile, and it was on the last of these curves that the driver lost control of the van. The curve was signed, and had a Department of Transportation posted recommended advisory speed of 30 mph³. The posted speed limit for the area is 50 mph.

The roadway conditions were dry. The weather was clear and partly cloudy. The light conditions were dark. The road has no streetlights and no residences along the road. The shoulder is approximately 36 inches wide, comprised of small crushed rock gravel. In places along the shoulder, the edging dips steeply down toward a water runoff area bedded in gravel, with brush in places.

Statements about what happened vary. In the driver statement attached to the SF-137, a state required form filled out with the WSU Sports Club Coordinator by the driver on April 24, 2004, the following version was offered:

³ The sign is a yellow speed sign, which means it is advisory. White signs are the posted speed limit.

“I was driving on Sommers Road back to Pullman on what we thought was the airport road cutoff to Colfax, WA, so I was not familiar with the road. I came to an unexpected sharp curve to the left (30mph) and stepped on the brakes. The van made the turn where I over corrected and went off the shoulder on the right. Then the van rolled once were I was hit in the head and knocked unconscious. I was told the van rolled one more time before coming to an upright stop at the corner of an intersection. “

This varies in the level and type of detail from the driver’s taped statement provided to the Whitman County Sheriff at the scene. In that statement, the driver said that the van was on Sommers Road by mistake. She turned onto it thinking it was the Colfax-Airport Road, a favored short cut back to Pullman. This is consistent with her written statement. But then, the driver said that being on the wrong road made the others “antsy.” She said she passed a white car, and the van began to lose control after she had completed the pass. No mention is made of not expecting the curve or being unconscious afterward.

In a separate statement to the Sports Club Coordinator, the driver said it was dark, and late, and she was going too fast to see the turn. The driver also reported she was going too fast for conditions (she thought 55 mph.), over-corrected and then rolled. She didn’t mention passing a white car.

At the scene, one team member said she was awake, and confirmed the driver’s initial statement that they passed a white car that did not stop. The rest of the team claimed they were asleep, or listening to music with headphones.

The investigating sheriff is certified as an accident scene technician. He evaluated the physical evidence, and clarified that the speed entering the curve was 56.99 mph. The driver did not brake, based on the skid mark appearance and trajectory. Had she braked, the van would have rolled earlier and gone off a 15-foot embankment. The van was in its normal lane of travel when it started to lose control. The van rolled when it hit the soft shoulder of the road in a skid, and the driver attempted to steer back onto the road. It came to rest upright near a stop sign for a road intersecting at a 45-degree angle, from the right, after rolling twice.

The Whitman County Sheriff Department’s report cites exceeding the stated speed limit, exceeding reasonable safe speed, and inattention as contributing circumstances to the accident. As of the date the team interviewed the Sheriff, the driver had not been cited, although she was read her rights at the scene for reckless driving.

The WSP and the Whitman County Sheriff responded to the scene after a local resident called in the accident. They evaluated the passengers and examined the debris field. The Sheriff’s office took the lead on working with the driver, and believed her statements that she had not been drinking. She was not given a blood alcohol test.

Breath analysis for alcohol was performed on all under-age team members, except the driver, and on those passengers over 21 who consented. The blood alcohol levels varied from .00 to .149.

Ten people were in the van. Six people reported injuries; three were transported to the hospital by ambulance. None of the injuries required admission to the hospital. Reports of seat belt use are conflicting: one report was that all wore seat belts; another that one person was unbelted; and a third represented that two players were belted together in the front seat to the driver's right.

Post Accident Events

After the accident, certain relevant events to the LPRT 's root cause analysis occurred:

- School personnel responded to the hospital to support the students.
- Some students were disciplined by the university through the Office of Student Conduct in accordance with the student code of conduct, based on their alcohol use.
- The Women's Rugby Team was suspended for the remainder of the season from sports club play, and barred for the following year from the Sports Club Federation. The team may petition to reform in 2006.
- None of the women on the suspended team may participate in any sports club.
- The University Recreation Van Driver training was not changed to include reference to the accident. WSU risk management informed the team that the accident is discussed in Sports Club Officer training.
- NHTSB hangtags and 15-passenger van rollover warning cards were placed in the vans.
- In May 2004, the University Risk Management office evaluated the accident at and identified some changes to consider. The primary finding was that the accident was the driver's fault. Their analysis identified the primary issue to correct was improving the way the Sheriff's Office provided information to WSU; they also identified sharing the report with non-identifying information as a "lesson learned," across the university, and then awaiting this review team's report.
- WSU waited to begin review of the accident until the Sheriff's report was received. The report arrived two months after the accident. By then, the students involved were gone for the summer. In its review of the draft report, WSU complimented the quality of the information the Sheriff's office made

available to the LPRT. As their Risk Management Office noted, WSU would have benefited from the same information sooner in relation to the accident itself.

Columbia Basin Community College

The Program

Similar to many Washington State community colleges, Columbia Basin Community College (CBCC) helps certain high school seniors learn more about attending college through the Upward Bound program. Students are picked up at their high school, and taken to events during their sophomore through senior years. On the day of this accident, the program plan involved attending a college career fair being held in Cheney at Eastern Washington University.

The Van

CBCC does not own 15-passenger vans. Its policy was to rent them, using either student drivers or employee drivers to operate the vans. The same rental agency was used each time.

The school rented this 2002 Ford 15-passenger van from the local branch of a for-profit national rental agency in Richland, Washington. The school employee driving presented his driver's license when he picked up the van. The van had all seats in place, and did not have any hangtags or other safety information. The school relied on the rental company as to the vehicle's safe condition to operate.

The Driver

The driver was a 35-year-old CBCC employee with 20 years driving experience and an unblemished driving record, which typically drove for the Upward Bound program during the summer. By his estimate, this was the third or fourth time during that year he had driven a 15-passenger van. As of this accident, by his own estimate he'd driven for this program 50 times in his four years with Columbia Basin. This is in contrast to the impression of another college representative, who thought the driver's typical responsibilities involved driving a van 2 –3 times a week.

The driver attended van driver training in July 2002. The local transit agency sponsored the training for its vanpool drivers. The driver attended because until 2003, CBCC was using 15-passenger vans leased from the public transit agency to transport students in this program. The transit company mandated driver training for any driver of its vans. During 2002, the driver drove 15-passenger vans for seven weeks for the program. The contract with the transit company ended in August 2002, and was not renewed due to

the risk perceived by the transit company in the operation of 15-passenger vans usually driven by young drivers carrying young passengers with more than the usual number of distractions.

The Accident

On Monday, December 15, 2003, the driver picked up the eight students at various sites, including the high school and the community college. This took three hours, from the time he picked up the van to the time he picked up the last group of students. He drove from Richland, to Prosser, to Benton City, to CBCC and Cornell High School in Prosser. He was 52 miles outside of his last pick up point when the accident happened.

The driver specifically confirmed for the LPRT that all students were told to belt themselves in, and that he checked to ensure they were belted in. He told investigators he did not check to see that the students had their seat belts on. Once everyone was collected, the van started toward Cheney on SR 395. It was accompanied by another van carrying students in the same program, which was following them.

The roads were icy that morning. In the road area of the accident, the sun hadn't hit the roadway to burn off the ice. The road was straight, with an uphill grade. Just prior to the accident, the van driver passed a single car accident, where that car had skidded on ice and ended up facing the other direction on the highway. The following driver was 400-600 feet behind. After both vans passed that accident, at 9:20 a.m. the following driver saw the van begin to fishtail to the right. The van turned right, sideways, and rolled three times after it hit dry pavement.

The driver was cited for traveling too fast for roadway conditions and failing to ensure his passengers were properly restrained. Both drivers thought the van was going 55-60 mph. The accident reconstruction confirmed the van was traveling at 61-67 mph. The posted speed limit is 70 mph.

The WSP responded and did a full investigation. Two of the passengers had their seat belts on, as did the driver. Two other passengers had a belt on, fastened improperly. One of these was killed. Four students weren't wearing their seat belts, one of which was ejected and died. All other occupants were injured and have recovered.

Post Accident Events

The school responded immediately to the families of the students involved in the accident, providing payment for medical bills and funeral expenses. The school settled lawsuits associated with the accident. Columbia Basin discontinued use of the vans for any reason, and now charters vehicles for its student programs. The school estimates this adds an estimated 30 percent to their overall program transportation costs.

State Policy for Agencies Regarding 15-Passenger Van Use

In April 2001, the National Highway Transportation Safety Administration (NHTSA) issued "The Rollover Propensity of Fifteen-Passenger Vans." When loaded with 10 or more occupants, the rollover rate of the vans in single vehicle accidents is almost three times higher than that of lightly loaded vans. The vans rollover more than half the time they are in single vehicle crashes.

Between 1999 and 2002, 1,576 crashes involving 15-passenger vans occurred and there were 349 were single vehicle rollovers. During this 10-year period, the study identified 581 deaths in 15-passenger van rollover accidents. College sports teams constitute a significant portion of consumers who rely on the vans for transportation purposes. Twenty-two percent of unbelted occupants in 15-passenger vans died, compared to 8 percent of belted occupants.⁴ Most recently in September 2005, a 15-passenger van rollover in Utah caused the death of nine occupants. The van was carrying students to an agricultural demonstration, and was driven by a 45-year-old instructor on a rural road.

Three months after this first advisory, in August 2001, the state risk management office published a small article with some safety "precautions" mentioned. This was in response to inquiries from colleges requesting information or guidance about the rollover issue of 15-passenger vans. Some colleges wondered if they should continue to buy the vans; others took the back row of seats out to reduce the number of passengers to 10 or less.

In April 2002, NHTSA issued two more warnings against the vans' use. The causes of the crashes are:

1. Inconsistent federal regulation related to the operation of the vehicles.
2. Lack of tire inspection and maintenance, resulting in loss of tread or deflation of tires.
3. Lack of appropriate safety standards for passenger restraints and occupant protection.
4. Drivers underestimate the driving risk and overestimate their skill.

NHTSA recommends that:

1. Well-trained and experienced drivers operate the vans.
2. All passengers wear seat belts. Eighty percent of those who die in rollovers are not belted.
3. Keep speed below 50 mph, especially on curved roads. Vans traveling on a curved road will rollover twice as often as on a straight road.
4. Remove rear seats and limit use to seven or fewer passengers. Do not store gear in the open area where the removed seats were.

⁴ NHTSA Action Plan for 15-passenger Van Safety, November 2004 Update.

5. Actively monitor for worn or improperly inflated tires.
6. Install an electronic stability control device.
7. Include safety warning information, including a hangtag, in the van.
8. Store cargo ahead of the rear axle.
9. States require a driver license endorsement for 15-passenger van operation, involving a written and skills test (similar to the commercial driver license⁵).
10. Equip the van with dual rear wheels by modifying the chassis.
11. Change design standards for the vans: require they meet school bus structural standards, have laminated glass and widening the vehicle and/or reducing its height.

The April 2002 advisory included a flyer available on their website entitled “Reducing the Risk of Rollover Crashes in 15-Passenger Vans.”

In June 2002, the Risk Management Division (RMD) of OFM sent two risk electronic message notes to risk managers, and to the colleges’ designated risk management contacts informing them about NHTSA’s second warning and included a website link.

RMD also sent a specific letter to colleges with the NHTSA warnings, and encouraged dissemination of all NHTSA safety warnings in conjunction with future purchase and rental contracts of 15-passenger vans by the state of Washington.

Part of the state’s response included eliminating 15-passenger vans as a single contract vehicle fleet item, and including them as an option on new passenger van contracts. NHTSA warning information and certain new options to make the vehicle safer were also added to the contract. None of this was required. When the vehicle is rented, the template rental contract does not require the rental agency to provide the NHTSA warning information to the agency, university, community or technical college drivers.

Around Washington State, some insurance entities were taking note. The Washington State Transit Insurance Pool sponsored a symposium regarding 15-passenger van “best practices” for use in its vanpool programs.

In January 2003, after a five-month focus group process of state agency participants sponsored by OFM, anticipated changes to the SAAM requirements were announced. Strategies were listed that focused on driver safety awareness through putting a hangtag in the vehicle and a flyer on rollover crashes, minimum age-driver experience of 18 years and two years driving experience, signing a driver experience and practices statement; and requiring safety education or training, renewed every year, before allowing drivers to operate the agency owned or rented van. Agency discretion was permitted regarding the type and scope of training, and whether or not to take the bench seat out of the back.

⁵ Commercial drivers’ licenses are required for operating vehicles of 16 or more passengers. See, RCW 46.25.010

Two months later, March 15, 2003, SAAM policy 70.40.32 was officially in place. State agencies are required to follow SAAM policy. This policy mirrored the January strategic advisory (see Appendix A).

In June 2003, a basic 15-passenger van loss prevention guide was published by the RMD for the state that repeats the SAAM policy, and includes some general safe driving tips. The guide was made available online, and was specifically mailed to community colleges and state universities by the RMD.

The CBCC rollover occurred in December 2003; the WSU rollover accident in March 2004.

In April 2004, NHSTA issued an unprecedented third advisory on the dangers of using 15-passenger vans. In November 2004, NHTSA updated its action plan for 15-passenger van safety (see Appendix B). Finally, in May 2005, NHTSA published a fourth research note, containing the preliminary results of its study of van pressure on the rollover risk of 15- and 12-passenger vans. Twelve-passenger vans are not included in the risk category formerly occupied solely by the 15-passenger van class of vehicle.

As NHTSA stated in its 2004 publication, "Reducing the Risk of Rollover Crashes in 15-passenger vans:"

"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 has run off the road. Three major situations can lead to a rollover in a 15-passenger van:

- The van goes off a rural road. If this occurs, the van is likely to overturn when it strikes a ditch or embankment or when it is tripped by an object or runs onto soft soil.
- The driver is fatigued or driving too fast for conditions. A tired driver can doze off and lost control. The driver can also lose control when traveling at a high speed causing the van to slide sideways off the road. The grassy or dirt medians that line 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."

Apart from these two incidents, and prior to the January 2003 risk management advisory, state agencies experienced six rollover accidents, all involving colleges or universities. One involved a WSU lacrosse team, and resulted in WSU amending its

driving policies for vans to impose the distance and behind-the-wheel time restrictions that were in place at the time of this review incident.

State agencies, including community colleges and universities, may purchase specific auto coverage for its owned vehicles through OFM's Risk Management Division. It covers volunteer, staff or student drivers, and the insurance carrier imposes standards for coverage that are more restrictive than the SAAM requirements. For example, covered drivers must have nine years or more of driving experience. The policy is primarily a risk transfer providing asset protection, consisting of collision coverage in addition to the liability coverage provided by the state's Self-Insurance Liability Program.

SECTION 3 – ASSESSMENT AND ANALYSIS

The LPRT's assessment of the incidents occurs at several levels. First is identifying contributory factors to the losses. Second is an analysis of systems and processes related to the accidents that impact the outcome at a root level. This is sometimes called a root cause analysis. Third, the review team provides recommendations arising out of its review of the specific events, the root cause analysis, and a comparison to other practices or responses to the same or similar issue.

Some of the contributory factors were more heavily weighted for one of the accidents than the other. However, the LPRT finds that both accidents reflected each of these contributory factors.

Contributory Factors

- Excessive speed for conditions, with both the speed and the risk of the conditions underestimated by the driver.
- Ignoring notice of increased risk on the roadway, and failing to change driving behavior based on that notice.
- Failing to emphasize the need for passengers to stay properly belted into the vehicle.
- Inadequate training on safe van operation based on the driver's experience.
- Irresponsible and inadequate behavior by those charged with supervisory responsibility.
- Use of 15-passenger van in contravention of NHTSA recommendations, i.e., storing gear behind rear-axle,
- Use of 15-passenger van.

Root Cause Analysis

Driver Experience

Although it is clear that experience is a key factor in the safe operation of 15-passenger vans, few of our college and university students or employees come with that

experience. This disparity is compounded when an individual's driving experience is limited to small-to-medium sized passenger cars in which the handling characteristics differ dramatically from a fully loaded 15-passenger van.

A June 1, 2004 National Highway Traffic Administration Consumer Advisory stated the following (in part):

“Because of the risks, it is important that 15-passenger vans be operated by trained, experienced drivers.... An organization that owns a 15-passenger van should select one or two experienced drivers to operate the van on a regular basis.”

According to the RMD 15-passenger van driver basic loss prevention guide, *“Driving a van is different from driving a car. A van's increased height, length and weight require the driver to be aware of these different handling characteristics when performing routine vehicle maneuvers.”*

For those agencies that choose to purchase additional insurance for their 15-passenger vans the minimum driver standards would exclude most student drivers. Under Pacific International Underwriters – commercial policy, drivers must have a minimum of NINE YEARS of overall driving experience and TWO YEARS experience driving passenger vans. Currently, SAAM sets the minimum age of drivers at 18 years old with two years of driving experience with any type of motor vehicle. In many cases, college and university student drivers just meet these minimum standards as in the case of the driver operating the van in WSU incident. When the SAAM policy was being established, a key consideration was the representation by community colleges that their sports programs would be negatively impacted if more restrictive experience requirements were included.

For economic and efficiency reasons, many colleges use student drivers, which appears to increase the risk of an accident even with training. In Washington State, drivers under the age of 18 have an intermediate license that limits the number of passengers and the hours of operation allowed in the car. Drivers between the ages of 15 and 20 represent 8.4 percent of the state population but 16.4 percent of traffic fatalities [Source: Washington Traffic Safety Commission]. Based on underwriting information, and NHTSA recommendations that 15-passenger vans be operated by well-trained and experienced drivers, as well as the somewhat limited and varied opportunities for 16 – 18 year olds to gain their “two years” of driving experience, the current SAAM standards need to be changed to prevent or mitigate the risk that 15-passenger van accidents will occur.

However, one of the accidents involved an experienced, trained driver. Therefore, the LPRT concluded that a change to the SAAM manual requirements will not prevent these accidents entirely, but would minimize their risk.

Driving Conditions

In addition to experience, another important factor in mitigating the risk of rollover accidents in 15-passenger vans is adjusting speed appropriately for the current driving conditions. Due to their handling characteristics, 15-passenger vans cannot correct as quickly as most passenger cars. According to the CBCC driver, they had already been driving for over an hour, when, shortly before the accident, they saw another vehicle spun out on the side of the road. The driver knew there was black ice on the roads that was melting in the spots where sunlight hit the road. It was noted that prior to the day of the accident that the driving conditions in Eastern Washington were negatively impacted by a harder than average winter. Although the driver reports driving under the speed limit, he did not adjust their speed after seeing the car off to the side of the road. Training and experience did not result in this driver adjusting sufficiently to the conditions encountered, and the physics of the van took over to cause the accident. Less experience, but a similar level of training was available to the driver of WSU's van. While she fortunately did not brake as soon as she began to lose control, which resulted a later rollover at a "safer" spot in the road, the physics of the van again took over to cause the accident.

According to Whitman County Sheriff Vince Waltz, who responded to and investigated the WSU accident, the driver was traveling an estimated 56 mph prior to her attempt to negotiate the posted 30 mph curve. The road conditions were dry. It was after dusk at the time of the accident and the road is not lit. The road was rural and had no street lighting. Based on her training, the driver had been taught that vans should not be driven at the speed limit, that being unfamiliar with the road increased the likelihood of an accident, and that vans should be driven even slower on curves. It was noted that the driver would have experienced several bends in the previous mile of road before the accident. The remedy is the same for all these risks: reduce speed. The driver did not adapt her driving to any of the risk factors that were present. In the assessment of Deputy Waltz, speed was the primary contributing factor to the rollover in the WSU accident.

The LPRT concluded that even with behind-the-wheel training and the more restrictive nine years driving experience, or requiring a commercial endorsement on the driver's license, it is impossible for the state to effectively affect driver behavior to prevent 15-passenger van accidents. Because the vehicle isn't forgiving of driver inattention, speed or error, the risk of van accidents is materially greater than when a passenger vehicle or 10-passenger van is being operated.

Alcohol Use

Alcohol was a factor in the WSU incident. WSU recognizes the problems posed by student use of alcohol. The Sports Federation rules prohibit its use by the teams, and club officers are specifically taught about this rule. They have the responsibility to pass that on to team members, and enforce it. The LPRT commends WSU for taking a strong stand against alcohol use by underage students. It also recognizes that

preventing such use is impossible to prevent. Repetitive emphasizing of the prohibitions against alcohol use, and consistent consequences for violating those prohibitions appears to be the best deterrent.

One question to review objectively is whether alcohol use is factor on which the schools can place even more preventive emphasis. The women's rugby team stopped at a party on the way home in contradiction to university policy. One student reported that drinking in relationship to away games is common. Other students reported that the rugby team knew the university's position and the consequences for violating their policies. However, they felt it was really a don't-ask/don't-get-caught/don't-tell situation. Interviewees also went so far as to say that most of them feel like it is ok as long as they have their designated driver (one who does not drink). In the LPRT's opinion, the training for van drivers does not emphasize the Sports Club Federation rules against alcohol use, nor are there any consequences for such activity until there are negative outcomes. WSU disagreed with this conclusion in its comments. Because the LPRT did not focus on WSU's policies and programs addressing student alcohol use, and because the team received the information it did, WSU may want to take an objective look at the current practices in relation to their program goals to see if any strengthening or changes may be needed.

The LPRT learned in interviews that it is reportedly commonplace to make the youngest members of the team drive. This of course affects the level of experience that is a key factor in 15-passenger van accidents. Although the driver in the WSU had not consumed alcohol, the more experienced backup driver was under the influence and unable to drive if necessary. The driver reported being tired prior to the accident. In addition, had the team not stopped at the party, they would have been driving back to campus during daylight hours, and the conditions of the unfamiliar road would have been more visible, and quite possibly, the driver would not have turned onto the wrong road.

The LPRT concluded that WSU can provide even greater emphasis to prevent alcohol use by sports club teams after away-games, and employ other strategies to deter post-game drinking or provide incentives for following the rules. An examination of other school best practices could provide useful guidance to this risk management strategy. Mothers Against Drunk Driving (MADD) and other behavior modification programs related to drinking and driving also provide helpful strategies.

Seat Belt Use

The CBCC driver told the review team he made sure all riders were wearing seat belts. When interviewed by the WSP he said he didn't "check... physically to every seat to make sure that they put the seat belt on." In its Major Accident Investigation Team (MAIT) report, the WSP noted lap belts and seat belt buckles were not in use by four of the students and improperly worn by two students. Both of the students who were killed were not properly wearing their seat belts. The driver signed the "The 15-Passenger Van Driver Safe Driving Practices Acknowledgement Statement" and then failed to

follow the safe driving practices which included lowering speeds during conditions that may affect visibility and mandatory seat belt usage. The state's published guide also contains a section on seat belt use, encouraging both the visual and verbal check of belts before starting the vehicle.

In addition, transporting youth requires greater vigilance than transporting adults, as they lack the experience and knowledge of safety practices commonly expected of adults. Many current drivers assume students raised in an era of "click it or ticket" and mandatory car seats for infants and toddlers will fasten a seat belt as a reflex. This is not necessarily true in situations similar to riding school buses, where seat belts aren't present, and where the fit of the shoulder/lap harness may be uncomfortable. The driver's responsibility must include frequent and vigilant monitoring and admonitions to the passengers about seat belt use. Neither of the drivers in these incidents did this. The "off the shelf" training states that seat belts must be used by passengers as one of a long list of safety tips, and is not placed into the student user context for drivers. The NTHSB hangtag, only available to the WSU driver, mentions seat belt use, but doesn't emphasize it in relation to other checklist items before departure. Most of the WSU van occupants were reportedly belted in, which may be why the injuries were not severe.

The NTHSB studies make specific note of the fact that 80 percent of rollover fatalities are passengers whose seat belts weren't fastened or weren't fastened properly. The two fatalities in the CBCC incident were students whose belts weren't fastened or weren't fastened correctly. The LPRT concluded that, where the passengers are students, the current training and the behavioral tendencies of student passengers makes ensuring passengers will have their seat belts on during a van rollover almost impossible. Changing the training places even more responsibility on the driver for compliance. The LPRT concluded that such a "captain of the ship" approach to managing this risk is unfair to a student driver, and still will not prevent a rollover, but only minimize the risk of a fatal outcome.

Number of Occupants

NHTSA stated in its June, 2004 advisory: *"NHTSA research conducted in 2001 and 2004 has shown that 15-passenger vans have a rollover risk that is similar to other light trucks and vans when carrying a few passengers. However, the risk of rollover increases dramatically as the number of occupants increases to full capacity."*

The study analyzing crashes involving 15-passenger vans compared their performance to minivans.⁶ When carrying seven passengers, the 15-passenger was 200 percent more likely to rollover than a minivan; when only four passengers rode in the vehicle, the 15-passenger van was 57 percent more likely to rollover than a minivan.

The CBCC rented van was a 15-passenger van carrying nine occupants without any occupants in the most rear seat. There is a federal law prohibiting the use of 15-passenger vans for transporting students, and there is a question whether this law

⁶ NHTSA, "Analysis of Crashes Involving 15-Passenger Vans" May, 2004, (DOT HS 809 735) at 27.

applied to this incident. Because its back seat was removed, the WSU owned van was configured for ten or fewer occupants, and was carrying ten occupants. Based on SAAM, the schools had policies established before the incidents that required no more than ten occupants in the vans, and were in compliance with these policies. This was consistent with NHTSA guidelines suggesting reducing occupants. This suggests that the number of occupants was not a factor in either of the accidents.

Inspection and Maintenance

The NHTSA studies specifically confirmed that tire pressure modification is essential to enhancing van rollover resistance.⁷ The LPRT cannot speak to this factor in relation to CBCC, as the van was rented. WSU's current inspection and maintenance programs do not include this assessment, although the university motor pool checks tire pressure regularly, and University Recreation staff members check tire pressure *after* vehicle use. Tire pressure levels are only checked before a trip if the student driver checks it. The interviewed student driver related that not just for that driver, but for those he knew, including the van driver in the accident, consistently reported that they did not use a tire gauge to check van tire pressure before driving, thus increasing the risk of dangerous tire pressure situations. While it is true that we don't know the tire pressure on the van after this accident, because no one checked it, this risk factor can be handled in a way that provides greater assurance that the risk is reduced.

State Agency Factors

SAAM Policy

In 2003, OFM 's risk management focus group review of 15-passenger van use by a number of state agency and college representatives recommended that the SAAM policy not ban use of these vans because of the short term financial hardships that might result in having to provide for the van replacement. The focus group also considered restricting drivers to 21 years or older, but decided not to request such limitation at the behest of many colleges and universities because most student drivers did not meet that criteria. However, the focus group did conclude that short-term actions could be implemented to mitigate the liability exposure. This resulted in the changes made and incorporated into the SAAM guidelines published by OFM to include driver requirements, training, hangtag and flyer documents in vans and suggested seating reductions.

⁷ NHTSA, "12 & 15-passenger Vans Tire Pressure Study: Preliminary Results" May, 2005, (DOT HS 809 846); NHTSA "Testing the Effectiveness of Tire Pressure Monitoring System Minimum Activation Pressure on the Handling and Roller Resistance of a 15-Passenger Van" June 1, 2004, (DOT HS 809 701). New federal motor vehicle safety standards require use of a Tire Pressure Monitoring System capable of detecting when a tire is more than 25% under-inflated and warning the driver. The standards apply to gross vehicle weight ratings of 10,000 pounds or less, which includes a substantial number of 12- and 15-passenger vans. *NHTSA Action Plan for 15-Passenger Van Safety, November 2004 Update.*

The LPRT did a more recent survey and received responses from 33 community/technical colleges throughout the state (see Appendix C). Eight colleges continued to use these vans to transport passengers and had not restricted the number of occupants to 12 or less or eliminated their use for carrying passengers, unlike the other 25 community and technical colleges. The survey also illustrates the broad range of interpretation of the SAAM manual by the community colleges, with correspondingly varied risk management benefits.

Part of the problem is the fact that SAAM manual rules are considered “minimum” standards. Agencies are reminded with each new policy released that they are free to develop stricter policies than those outlined by SAAM. As the broad range of survey responses indicate, this degree of latitude can have significant consequences when dealing with a potentially dangerous or defective product.

Risk Analysis Application by the Schools

WSU's risk analysis identified a low frequency of injury accidents associated with 15-passenger van use. WSU perceives the risk to be low as only two rollover accidents (including this one) have occurred since the sports club program was implemented in 1992, a time during which well over a million miles has been logged in the vans.

WSU's risk opinion is that eliminating the van use would significantly increase the chance of accidents from the use of multiple self-owned vehicles and less incentive to follow university policy of no drinking in conjunction with or traveling to the sports competition events. The Washington State Patrol anecdotally disputed this conclusion, as most student drivers are more familiar with passenger vehicles, and know their personal insurance is at risk for unsafe driving behavior. In addition, where smaller vans (10 passenger or less) are used, the risk of rollover is indisputably and significantly minimized. This doesn't address student use of alcohol followed by driving, which of course can also cause accidents. But in relation to 15-passenger van operation, it is a relevant consideration.

Based on the LPRT's interviews, budget prioritization issues drove the lack of a centralized decision to ban the acquisition or use of 15-passenger vans by state agencies or colleges. In 2004, when the SAAM policy was developed, this was consistent with the national trend in school use of 15-passenger vans. However, the trend has changed to either imposing driver experience restrictions with mandated behind-the-wheel training or phasing out the use of the vans since that time. Given these two rollover incidents, some colleges have expressed concern that such a centralized decision has not been made. The NHTSB third warning also requires re-evaluation of the SAAM policy.

The current state contracts for 2005 passenger vans (No. 10104, 10/25/04-10/31/05) includes the 15-passenger extended maxi van and makes these vans available to state agencies, colleges & universities and to political subdivisions in the state of Washington. Relative to the 15-passenger maxi van, the contract indicates “vehicle not available for

school bus use” and “dealer to provide NHTSB warning placard with deliver of each 15-passenger maxi van,” but it provides no information relative to the potential rollover dangers of the van. Additionally, the contract provides options of this van for 12 passengers (with one three-person bench deleted) and 10 passengers (with one four-person bench and the front passenger seat deleted), which is not consistent with either the state of Washington’s OFM sponsored 15-passenger van basic loss prevention guide or the NHTSB advisories. The specifications for this van include “electronic stability control” but this is not mandatory. In 2006, the two van manufacturers report that the 2006 models will include the stability control as a standard feature. The vans are still useful for cargo transport, with the benches removed, and this report does not address or identify undue risk with that use.

The LPRT concluded that the SAAM policy permits too many varied interpretations without an oversight or enforcement mechanism for compliance to be effective at preventing 15-passenger van rollover accidents. The State Auditor’s Office oversees agency compliance with SAAM, but does not currently audit for compliance with the 15-passenger van use policy. The State Auditor’s Office, the General Administration agency and the Risk Management Division of OFM should work together to address oversight and monitoring of agency use of these vehicles.

The LPRT team also concluded that WSU’s risk analysis should be re-examined, as the severity of the risk (fatality) does not justify the other considerations emphasized by WSU’s current approach. This same approach is used by most other community colleges, with the exception of CBCC and those schools who eliminated the vans based on the risk. The LPRT also concluded that the fleet contracts maintained by the General Administration agency should be consistent with state policy for van use, and that control of the risk should include incentives to agencies to purchase other, safer vans for passenger transport.

Training and Driver Certification

Training is required to drive a “state” vehicle, according to SAAM 12.20.70⁸, not just 15-passenger vans. Receipt of training is the sole mandated safety tool contained in current state policy for drivers of state vehicles. Both vehicles in these incidents qualified as “state” vehicles under the policy. Both drivers received training.

Since the publication of the NHTSA reports, training videos are available for 15-passenger van driver training. The purpose of Defensive Driver Training for the 15-passenger van driver is to educate and alert drivers to the differences between driving a passenger car and a large van. Students should leave the course with an understanding of the safety factors that govern driving a van.

⁸ There is a new SAAM policy, 12.30.20.c, where bullet 6 includes checking on seat belt use. Other than this policy, the driving policies have not been changed since the second of four NHTSA advisories was published.

The training course has been upgraded to “Coaching the Van Driver II.” Based on the interviews, neither driver training course included information about previous rollover accidents or NHTSA recommendations. This is in contrast to the Sports Club Officer training, which does include reference to the rollover accident of 2004.

Both drivers in these accidents viewed “Coaching the Van Driver,” a course designed for driving larger vans. Drivers signed forms attesting to their knowledge about 15-passenger vans and their propensity for rollover. The CBCC driver took the 15-passenger van safety course on his own at the local transit agency, as required by the school in order to operate the van once it became aware of the NHTSB advisories. The result of the training: LPRT interviews of WSU student drivers found that the training did not include the NHTSA recommendations about seat belt usage, speed and causes for van rollovers. Student drivers did not enforce seat belt usage. The CBCC driver did not enforce seat belt usage. WSU drivers and trainers said no additional information was provided and they didn’t have NHTSA hang tags until after the accident. Student drivers remove tags when they drive today, without reading them. There were no hangtags in the vans rented to CBCC.

WSU’s written policies and procedures in use today are excellent. Based on what learned about the policies and procedures in place at the time of the van driver’s training, the program covered the key issues related to 15-passenger van use, but the outcome – what the trained students learned and more importantly, apply – demonstrates a disconnect. The LPRT concluded that different WSU staff currently have different understandings about the value, effectiveness and content of the training. A risk reduction strategy could include a review with current staff about the driver training program, and what is and isn’t included.

In addition, the lack of behind-the-wheel training means that students learn the handling differences of the vans while passengers are aboard, and without the benefit of a trained advisor riding with them. The behind-the-wheel component is a key loss prevention mandate used by commuter vanpools to operate safe programs using 15-passenger vans, and one rejected by the schools because of the time and cost involved in offering this component. The LPRT concluded that without behind-the-wheel training, or a commercial driver license endorsement, current training programs are not likely to produce van drivers who will more consistently operate the vehicle safely.

Driver Certification

WSU’s driver certification requirements are not as stringent as recommended by NHTSB. WSU believes they are more stringent than those required by the SAAM. WSU is not alone among community colleges and universities in Washington State, as there is a broad range of certification standards being used by state educational institutions for van drivers.

The Washington State Transit Insurance Pool’s (WSTIP) Best Practices and OFM’s guidelines for volunteer van drivers are more stringent than WSU’s. Their criteria for

excluding a driver includes any suspension/revocation, any “at fault” accident where damage was greater than \$2,500, or any major moving violation to include speeds greater than 10 mph over the posted limit. The signed “The 15-Passenger Van Driver Safe Driving Practices Acknowledgement Statement” -- provided in the SAAM -- allows for four moving violations/infractions in 12 months or five moving violations/infractions in 24 months resulting in a conditional status license or suspension/revocation or six or more moving violations within a 12-month period. WSU Recreation currently refuses to authorize students to drive if they have more than three at-fault accidents, more than three tickets or a combination of more than three tickets/accidents within the past three years.

The LPRT concluded that WSU should conform its driver certification requirements to the NHTSB and SAAM levels, and that OFM should include an oversight component for loss prevention in this area as part of its responsibilities under RCW 43.41.350.

Roadway Design and Safety Considerations

The LPRT did not evaluate the contribution, if any, that roadway design and safety made to these accidents. The LPRT did note that, based on expert analysis, had the WSU van driver braked, the van would have rolled sooner and the outcome would most likely not have been as benign, given the number of unrestrained passengers and the 15 foot drop adjacent to the earlier curves.

Recommendations to the OFM Risk Management Division

1. In conjunction with the State Auditor’s Office, implement an oversight program for 15-passenger van use that includes the following elements:
 - Agency assessment of its vehicle fleet 15-passenger vans for age and date of scheduled replacement.
 - A regular vehicle maintenance and inspection program for 15-passenger vans.
2. Update the SAAM policy for 15-passenger vans:
 - Include a requirement that occupants wear age-appropriate restraints at all times and specific reinforcement with state drivers of this requirement and the steps to take – visual inspection, verbal reminders, stopping the van for non-compliance – to support this requirement.
 - Modify the SAAM manual driver certification requirement to conform the driver experience to the commercial policy coverage requirements.
 - Update the policy and oversight program based on the NHTSA November 2004 updated action plan for 15-passenger van safety.
3. For any new SAAM policy, implement an oversight program to evaluate policy effectiveness and implementation outcomes.

4. Establish a plan to phase out the use of 15-passenger vans by state agencies for passenger transport on a basis that is as cost-beneficial as possible. Appendix D contains the phase-out plan used by the University of Virginia for use as a model.
5. Modify the rental contract template to include safety requirements related to 15-passenger vans as mandated performance requirements of the rental agency.

Recommendations to Washington State University and other Universities and Community Colleges:

1. Phase out use of 15-passenger and 12-passenger vans for transporting passengers. Based on the most recent NHTSA publications, vans configured for eight or fewer passengers appear to provide the largest capacity for the safest use, but this should be verified with experts. Other options exist, such as chartering buses with experienced drivers, that the school may want to consider.

Until this recommendation is adopted:

1. Change the 15-passenger van driver training program to include behind-the-wheel training, and to provide more emphasis on preventing alcohol use. Evaluate the Sports Club Federation rules designed to prevent and deter alcohol use after events and improve them to increase their effectiveness.
2. Work with the WSP and other experts to re-evaluate the risk associated with passenger vehicle and smaller van use for transporting sports club members to events, and to develop policies and procedures to minimize any risks.
3. Change the certification requirements for student drivers. For example, drivers should have a minimum of five years driving experience and no major citations or accidents for the previous three years. Colleges and Universities may have issues finding drivers for student programs if they require more experience for driving a 15-passenger van.
4. Seat belt usage should be further emphasized in training, with statistics from rollover accidents nationally and in Washington State. Use the examples from prior accidents to illustrate the reality of the risk.
5. Ensure all levels of administration associated with Sports Club Federation have an accurate understanding of the program requirements and effectiveness. Obtain participant feedback on what has been learned, and develop a plan to monitor compliance with the training.

Recommendations to Columbia Basin Community College and other Community Colleges

1. Continue the policy of not using 15-passenger vans to transport students to off-campus events.
2. Develop a uniform 15- and 12-passenger van use policy and program. See the WSU recommendations regarding the specifics of this.

SECTION 5 – CONCLUSION

The LPRT did not make its recommendation to phase out use of 15-passenger vans lightly. In short, these incidents cannot be prevented as long as the vans are in use and operated by a varying number of drivers with minimal levels of experience with these vehicles. Why?

The best training and certification of drivers would not effectively prevent 15-passenger van rollovers. Drivers are never 100% vigilant, cautious and accurate in their assessment of conditions. Vans are guaranteed by their design to rollover when the tipping point is reached. Occupants are less likely to use restraints, when available, and many van models do not include restraints for all seating positions. Students will use the bench space to store gear despite hangtag warnings not to, which according to the NHTSA reverses the risk reduction benefit of taking out the last bench seat.

NHTSA recommends keeping passenger loads light, with 10 or fewer occupants. Migrating to smaller vans makes sense given that recommendation. In addition, speed and the need for special training and experience to operate a 15-passenger van are stressed. The incidents reviewed here were in direct conflict with every piece of advice NHSTA provides:

- The passenger loads were greater than 10.
- The van tire pressure was not regularly checked for improper inflation.
- Not all occupants were belted.
- Cargo was placed in back of the rear axle.
- Extra care was not taken on curved roads at speeds over 50 miles per hour.
- Drivers with special training AND experience were not operating the vans, and in one instance, the driver was not well rested or fully alert.

The bottom line appears to be that the vans are only as safe as the willingness of the driver to travel at a lower speed than would be appropriate for a passenger car. And even then, if something goes wrong, the vans are as likely to roll over as not. In programs where this is emphasized, repeatedly and regularly, the vans appear to be safer to use, based on loss history. In the setting confronting universities and colleges,

there is not a cost-effective way to impact driver behavior, especially in rural use areas. Indeed, where driving the van is not a full-time job of the driver, the risk considerations will not be foremost in their mind until the accident is upon them.

Hence the LPRT's recommendation: stop using the vans for college transportation. The team did not examine the extent to which other agencies use the vans for transporting people. However, just as they are unsafe for student drivers and passengers, they are unsafe for others as well.

If CBCC's estimates are accurate, a 30 percent increase in transportation costs for school club and sporting events results from eliminating 15-passenger van use. Based on the information it examined, the LPRT review team believes this is less costly than the state having to reimburse a family for the death or serious injury of a student.⁹

The unavoidable conclusion after much debate was that any other recommendation would result in more preventable deaths, and that one more death was one death too many.

⁹ Source: consultation with OFM Division of Risk Management regarding cost of claims and litigation compared to community college average transportation costs.

Appendix A

SAAM Policy for 15-Passenger Van Use



70.40 Motor Vehicle Management and Use

70.40.32

March 15, 2003

Washington State loss prevention requirements for operation of 15-passenger vans

15-Passenger Van Driver Definition: Employees, student-employees, students and volunteers operating 15-passenger vans under the direction of a state agency, university, or community or technical college.

70.40.32.a

Driver safety awareness. Agencies, universities, and colleges are required to place and maintain in a conspicuous spot in each 15-passenger van vehicle a copy of the National Highway Traffic Safety Administration (NHTSA) "Reducing The Risk of Rollover Crashes in 15-Passenger Vans" - Hangtag and "Reducing The Risk of Rollover Crashes in 15-Passenger Vans" - Flyer.

- **New Vehicles:** Dealers should provide the above named documents upon delivery per the state contract.
- **Existing Vehicles:** Copies of the above documents can be printed from the NHTSA website at www.nhtsa.gov/Hot/15PassVans/index.htm
- **Rental Vehicles:** Provide each driver a copy of the above named documents to maintain in the 15-passenger van rental vehicle for the duration of the rental period.

Note: The state rental vehicle contract does not require the rental agency to provide these documents to state employees using rental vehicles.

70.40.32.b

Minimum age/driver experience. All 15-passenger van drivers must be a minimum of 18 years old and have a minimum of two years of driving experience with any type of motor vehicle.

70.40.32.c

Required documents for driver and supervisor signature.

- Agencies, universities, and colleges are required to have all 15-passenger van drivers sign the following documents at the time for their initial 15-passenger van driving assignment. For individuals driving 15-passenger vans at the time this policy is implemented, the two required forms should be completed no later than one month from the effective date of this subsection. Managers/supervisors also sign the documents under the manager/supervisor responsibilities checklist section.

[15-Passenger Van Driver Valid License to Drive and Driving Experience Statement](#) (PDF file)

[15-Passenger Van Driver Safe Driving Practices Acknowledgement Statement](#) (PDF file)

- Agencies are required to maintain the above documents in appropriate agency files.

Note: Recommend the two documents be printed on one page back to back.

70.40.32.d

Required safety education or training.

- Agencies, universities and colleges are required to provide employees, student-employees, students and volunteers with 15-passenger safety education or training *prior to their initial operation* of an agency-owned, motor pool, or commercially rented 15-passenger van vehicle. For individuals driving 15-passenger vans at the time this policy is implemented, education/training should be completed and documented no later than three months after the effective date of this subsection.
- Training is to be documented by the agency, university or college and records maintained in appropriate agency files.
- Renewal training must be provided every two years. Renewal training should consist of a review of initial training information with updates as appropriate.
- Renewal training must be documented and maintained in appropriate agency files.
- Safety education or training provided must minimally include (1) review of all National Highway Traffic Safety Administration (NHTSA) advisories, (2) review of the NHTSA Hangtag and Flyer for 15-passenger vans, and the Risk Management Division's "15-Passenger Van

Drivers Basic Loss Prevention Guide," available on Risk Management Division's web site at:
<http://www.ofm.wa.gov/rmd/loss/passenger.htm>.

Note: Due to varying needs of agencies, universities and community and technical colleges, the minimum requirement can be augmented with additional training information or training courses as desired. Length of training, training mode, type of training materials or audio-visuals used is at agency discretion.

70.40.32.e

15-Passenger van seat reduction *recommendation*.
Agencies are encouraged, when feasible, to reduce the number of passengers in 15-passenger vans by at least five to reduce the weight in the back of the van. Agencies may remove the seats and/or require the driver to ensure passengers sit in the forward seats.

Appendix B

NHTSA Action Plan for 15-Passenger Van Safety

NHTSA Action Plan for 15-Passenger Van Safety

November 2004 Update

Introduction

There is growing concern regarding the crash involvement and safety of 15-passenger vans and the resulting injuries and fatalities. Between 1990 and 2002, there were 1,576 15-passenger vans involved in fatal crashes that resulted in 1,111 fatalities to occupants of such vans. Of these, 657 vans were in fatal, single vehicle crashes, of which 349 rolled over. Heavily loaded 15-passenger vans are particularly susceptible to rollover. Confounding this problem, the rate of safety belt use among occupants of large vans involved in fatal crashes is very low compared to other types of vehicles. While this plan focuses on 15-passenger vans, the actions identified also relate to 12-passenger vans, which are similar to vans configured for 15 passengers in terms of design, handling characteristics, and safety problems. NHTSA defines vehicles designed to carry more than 10 persons as buses for purposes of the Federal Motor Vehicle Safety Standards (FMVSS). This plan is an update of the first *NHTSA Action Plan for 15-Passenger Van Safety*, published in September 2003. The current plan provides new information on agency actions to address these vehicles, and a report on progress and results on activities identified in the 2003 plan.

Background

Crashes involving large vans, especially rollover crashes and the resulting fatalities and injuries, have raised the level of public and NHTSA attention to this issue. In 2001, 130 occupants of 15-passenger vans died in crashes involving these vehicles. Single vehicle crashes represented 42 percent of fatal crashes. Eighty-seven percent of people who died in single vehicle rollovers of these vehicles were not wearing safety belts. Between 1990 and 2001, 15-passenger vans represented .25 percent of the passenger vehicle fleet, .26 percent of passenger vehicles involved in fatal crashes, and .25 percent of all passenger vehicle occupant deaths. During this time, 8 percent of belted occupants in these vehicles in fatal single vehicle crashes were killed, compared to 22 percent of unbelted occupants.

In March 2003, Senator Snowe introduced S.717 bill to address 15-passenger van safety. Representative Mark Udall introduced a similar bill in the House, HB 1641. Senator Snowe's bill called on NHTSA to develop a dynamic test to assess rollover risk

for 15-passenger vans and to issue the results as consumer information; to test these vehicles at different loading levels as part of the New Car Assessment Program (NCAP); to test stability control and other technologies to assess effectiveness in reducing rollovers; and called on the Federal Motor Carrier Safety Administration (FMCSA) to apply Federal motor carrier safety regulations (FMCSR) to the commercial operation of 15-passenger vans.

Since November 2002, the National Transportation Safety Board (NHTSB) has issued nine recommendations that relate to these vehicles. These recommendations encompass vehicle countermeasures, consumer information, driver programs, working with FMCSA, and cooperating with outside groups to promote the safety of these vehicles. This Plan references these recommendations under specific action areas.

NHTSA Actions and Plans

I. Problem Identification

A 2001 NHTSA study included three different analyses addressing whether 15-passenger vans, especially loaded 15-passenger vans, are unusually susceptible to rollover. The results from State Data System (SDS) analyses indicated that the rollover propensity for 15-passenger vans over all occupancy levels was slightly less than for the overall light truck and van (LTV) group, that rollover propensity increases with the occupancy level of the 15-passenger van, and that higher occupancy levels caused crash severity to increase. Analysis of state data also found that rollover rates for 15-passenger vans did not show any significant correlation to driver age and that fatalities occurred disproportionately to rear seat occupants, while injuries were proportional between front and rear seat occupants. An assessment also was conducted comparing the static stability factor (SSF) of a 15-passenger van to a 7-passenger full size van and a minivan when lightly loaded (driver only) and fully loaded to gross vehicle weight rating (GVWR). This analysis found that the SSF for all three vehicles decreased (higher likelihood of rollover) when fully loaded. Based on a limited number of crashes, heavily loaded 15-passenger vans appear to have a higher rollover rate compared to when these vehicles are lightly loaded (with fewer occupants).

A 2004 study (see Completed NHTSA Actions section) explored the relationship between vehicle occupancy and several other variables in the NHTSA Fatality Analysis and Reporting System (FARS) database and a 15-passenger van's risk of rollover. The study examines statistics on fatal crashes involving 15-passenger vans from 1990 to 2002. The study also constructs a logistic regression model to model the effects of various factors, most importantly occupancy level, on the risk of rollover. The model is constructed using data from 1994 to 2001 on police-reported motor vehicle crashes in five states that are part of NHTSA's State Data System (SDS).

The data show that between 1990 and 2002, there were 1,576 15-passenger vans involved in fatal crashes that resulted in 1,111 fatalities to occupants of such vans. Of these, 657 vans were in fatal, single vehicle crashes, of which 349 rolled over. In 450 of these vans, there was at least one fatality, totaling up to 684 occupant fatalities in single-vehicle crashes. The majority of fatally injured van occupants were not wearing seat belts. Only 14 percent of the fatally injured were restrained. Analysis of data from NHTSA's SDS reveals that the rate of rollover observed for 15-passenger vans that are loaded above half their designed seating capacity is 2.2 times the rate observed for vans loaded to or below half their capacity. The odds of a rollover for a 15-passenger van at its designated seating capacity is more than five times the odds of a rollover when the driver is the only occupant in the van.

The agency also performed computer modeling to assess the handling of these vehicles. The modeling predicted understeer for 15-passenger vans when lightly loaded, similar to minivan behavior. However, when heavily loaded, it predicted understeer at low lateral acceleration, but oversteer at higher lateral accelerations. This transition to oversteer may pose safety problems for drivers who are unfamiliar with this characteristic. Loading 15-passenger vans to gross vehicle weight (GVW) also moved center of gravity rearward, increasing vertical load on rear tires.

Current and Planned NHTSA Analyses for Problem Identification:

Survey Tire Pressure and Condition in the 12- and 15-Passenger Van Fleet and Analyze the Role of Tires in Rollover Causation: As part of NHTSA's development of long-term performance requirements for tire pressure-monitoring systems, NHTSB recommends (August 2003) NHTSA adopt more stringent detection standards than 25 or 30 percent below manufacturer-recommended levels. This recommendation is based on the NHTSB's view that pressures at those levels may have an adverse effect on the handling of vehicles, such as 12- and 15-passenger vans. Work has been conducted at NHTSA's Vehicle Research and Test Center (VRTC) on the relationship between inflation pressure in front and rear tires, loading conditions, and handling for a 15-passenger van (see Countermeasure Research section for detail). The agency believes that more information is needed on the level of tire pressure under-inflation and tire wear conditions and tire failure for 15-passenger vans in use for consumer information, vehicle solutions, or other actions. NHTSA's National Center for Statistics and Analysis (NCSA) is conducting a study, based on methods used in a recent light vehicle tire pressure monitoring system (TPMS) survey, to collect tire pressure and condition information on this class of vehicle. In-house analysis also will be done to examine the involvement of tires in rollover crash data.

Milestones:

Complete feasibility evaluation	February 2004 (completed)
In-house analysis of rollover crash data and tires	June 2004 (completed)
Develop Survey Plan	March 2004 (completed)
Complete tire pressure and condition survey	August 2004 (completed)
Publish results of Tire Pressure/Condition Survey	January 2005

Analyze State Laws Regarding the Use of 15-Passenger Vans: An analysis is being conducted to identify how 12- and 15-passenger vans are classified at the state and other jurisdictional levels. In some cases, legal loopholes exist at the state level as a result of NHTSA classifying this type of vehicle as a bus (for example, exemption from laws requiring use of child restraints. Each state prescribes its own regulations that apply to the use of any vehicle that is used to transport students and/or pre-school children. The result of our analysis is a list of the laws in the 50 states and the District of Columbia. This list can be found at the end of this Plan. This information will provide input to agency decisions on future actions on the safe operation and use of these vehicles.

Milestones:

Complete study of state laws	August 2004 (completed)
Issue list of state laws	October 2004 (completed)

II. Consumer Information and Education

In April 2001, NHTSA issued a Research Note and Consumer Advisory on 15-passenger van safety. The Research Note covered the findings from the three-part study conducted by NHTSA (described in the Problem Identification section above). The April 2001 Consumer Advisory informed the public that 15-passenger vans should be operated by "experienced drivers" and noted that a commercial driver's license (CDL) is required to transport 16 or more people for commercial purposes. The Consumer Advisory urged drivers to be familiar with the handling of fully loaded 15-passenger vans and urged institutions using 15-passenger vans to require safety belt use at all times. In April 2002, Dr. Runge reissued the 2001 Consumer Advisory at a news conference, together with a flyer on 15-passenger van safety and a hangtag to leave in 15-passenger vans that provided information on the risk of rollover, tips for preventing rollover, buckling up for safety and other tips for safe driving.

In June 2004, NHTSA reissued a Consumer Advisory, a cautionary warning to users of 15-passenger vans because of an increased rollover risk under certain conditions. The agency also issued an updated consumer hangtag for 15-passenger van users and announced the publication of three new NHTSA research reports on 15-passenger vans (see Completed NHTSA Actions section).

NHTSA's recommendation is that pre-school and school aged children should not be transported in these vehicles due to safety concerns. In February 2002, just prior to NHTSA reissuing the 2001 Consumer Advisory on 15-passenger van safety, NHTSA sent a letter to each state president of the National Automobile Dealers Association (NADA) reminding them of the Federal requirements that apply to the sale or lease of vehicles used to transport students to and from school and school-related activities. Letters also were sent to state directors of pupil transportation as well as to independent education groups outlining these Federal requirements and NHTSA's school bus safety standards. Similar letters were sent to these groups in 1995 and 1997. Enclosed with each of these letters was a fact sheet, "School Buses: The Safest Choice for Student Transportation," explaining why school buses are safer than 15-passenger vans for transporting children. In August 2003, NHTSA issued new regulations amending the school bus safety rules to encourage churches and other groups to use buses instead of vans.

In November 2002, NHTSA, in partnership with the Health Resources and Services Administration (HRSA) and the American Academy of Pediatrics (AAP), announced a training program for childcare providers called *Moving Kids Safely in Child Care*. The two-day training program educates childcare providers about how to safely transport children using the appropriate child restraints for their ages as well as the benefits of transporting children in school buses versus 15-passenger vans. This training program is available through the state highway safety offices. To date, over 2,900 childcare providers across the country have completed this training program.

Current and Planned Actions:

Technical Assistance: NHTSA attends trade shows, conventions, etc., throughout the year, and these events offer opportunities to reach a varied audience and promote vehicle safety messages. NHTSA plans to continue to include 15-passenger van safety information in relevant Departmental efforts and regional outreach activities. NHTSA also plans to utilize existing partnerships with National Collegiate Athletic Association (NCAA) and umbrella church and youth organizations as a mechanism to reach targeted populations that use 15 passenger vans.

- Specifically, NHTSA has existing partnerships with many organizations to implement traffic safety and injury control programs. Throughout FY 2005,

NHTSA will work with the following organizations to provide technical assistance for their efforts to develop programs and policies to address 15-passenger van safety and provide them with NHTSA materials to disseminate throughout their organization:

- National Automobile Dealers Association (NADA)
- Auto manufacturers
- Governors Highway Safety Association
- Education and school transportation organizations
- Branches of the military (they have expressed interest in developing a training program for their drivers)
- Religious groups
- Colleges and universities
- Rental van fleets
- YMCA and summer camp organizations
- Organizations that focus on migrant workers
- Head Start and day care provider organizations
- VA medical centers

Milestones:

Disseminate information	Ongoing
Educate outreach organizations through educational presentation	Ongoing
Implement awareness campaign	Annually in May

Training and Education: The focus of NHTSA's driver training program is on novice teenage drivers. NHTSA has a cooperative agreement with the highway safety center at Indiana University of Pennsylvania to develop novice driver training programs and driver education curriculums. Commercial uses of 15-passenger vans typically involve experienced drivers, and, because of liability issues within this industry, many commercial operators require their drivers to take training. A majority of the highly publicized crashes involving 15-passenger vans have involved inexperienced drivers for private organizations such as churches and YMCAs. Because of the infrequent use of these vehicles for these purposes, drivers are less likely to have taken formal training. In addition, many of these organizations operate programs with volunteers and with limited budgets.

A driver education piece will be developed to complement the vehicle hangtag that is available through the NHTSA website. It will highlight the known risk factors of driving the vans and include reference to information from new research reports that address issues such as tire blowouts and the importance of correct tire pressure. This educational piece will be aimed at volunteer or social

organizations that often utilize the vans, such as religious groups, athletic organizations and summer camps.

Milestone:

Develop on-line information, tips and driver educational materials

December 2004

III. Countermeasure Research

Refer to NHTSA's April 2001 Research Note & paper which is described under Problem Identification.

Also, in June 2004, NHTSA published two reports (see Completed NHTSA Actions section). The first examines dynamic rollover resistance of 15-passenger vans with multiple load configurations and the second examines the effects of tire pressure monitoring system minimum activation pressure on the handling and rollover resistance of a 15-passenger van.

The first study used two vans; one was factory equipped with electronic stability control (ESC). Each van was evaluated with up to four load configurations depending on the test performed. The van with ESC was tested with the ESC enabled and disabled. Generally, static stability factors and dynamic rollover resistance of the vans degraded as the number of occupants increased. Results from the study indicate that installation of ESC on 15-passenger vans may have important safety benefits in some, but not all, on-road driving situations. This report responds to NHTSB Safety Recommendation H-02-26 and H-02-28. NHTSA staff briefed NHTSB staff about this study on August 5, 2004 and they agreed to close these recommendations based on the results of the study.

The second study modified the tire inflation pressure to determine the effects on the handling and rollover resistance using one 15-passenger van. In addition to those specified on the vehicle identification card, four other front/rear tire inflation pressure combinations were used along with multiple loading configurations (nominal and maximum occupancy). Tire inflation pressure had a minimal effect on lateral stability in the maximum occupancy configuration. Decreasing the front and rear inflation pressure from that specified on the vehicle's placard to 46-psi front, 60-psi rear had a small adverse affect on the vehicle's dynamic rollover resistance. In summary, the effects of tire inflation pressure on light truck handling and rollover resistance cannot be fully determined from the results of this study because only one vehicle was evaluated. Use of this study's generalized results to predict the performance of other similar vehicles may not be appropriate. This study responds to NHTSB safety recommendation H-03-17. NHTSA staff briefed NHTSB staff on August 5, 2004 and is in the process of formally requesting that this recommendation be closed based on the results of this study. (See Completed NHTSA Actions section.)

Current and Planned Research

The research that was planned under the scope of the 2003 plan has been completed. NHTSA will continue to assess the need for additional research as the agency proceeds with 15-passenger van countermeasure and data collection activities.

IV. Vehicle Countermeasures

NHTSA recently published an NPRM to upgrade FMVSS 214, Side Impact Testing (see Completed NHTSA Actions section) and an NPRM to require lap and shoulder belts in all seating positions for vehicles weighing 10,000 pounds or less. These safety upgrades are expected to improve the crashworthiness characteristics of 12- and 15-passenger vans.

Current and Planned Actions:

FMVSS 208, Occupant Crash Protection: Anton's Law, signed into law in December 2002, requires lap and shoulder belts (3-point belts) at all seating positions (notably the center rear seat) for vehicles with a GVWR of 10,000 pound or less. Fifteen passenger vans have bench seats with seating for three or four passengers, but usually only the outboard seats have lap and shoulder belts. NHTSA published an NPRM on August 6, 2003, that would require lap and

shoulder belts in rear center seats in all vehicles up to 10,000 pounds GVWR. One practical way to install lap and shoulder belts in all 15-passenger van seating positions (and to stiffen seat backs) might be to use integrated seats. This activity relates to NHTSB H-03-15. On August 5, 2004, NHTSA staff briefed NHTSB staff on the progress made on this recommendation. NHTSB plans to close this recommendation following the publication of a final rule.

Milestones:

NPRM to require rear center lap/shoulder belts	August 2004 (completed)
Final rule	December 2004

FMVSS 214, Side Impact Protection: In addition to the 1995 FMVSS No. 201 upgrade, the agency has proposed to upgrade FMVSS No. 214 by adding a dynamic side impact pole test. The proposed upgrade will apply to all passenger cars, and trucks, buses and multiple passenger vehicles with a GVWR of 10,000 pounds or less. The impact test will be performed on either side of the vehicle and the pole is aimed at the head of the test dummy placed on the front outboard seating position. The expected countermeasures are inflatable head protection systems (HPS), such as side air curtains and other devices. Although the pole

test covers only the front seat occupants, it is expected that vehicle manufacturers will provide HPS to cover occupants in second and even third row seats. Therefore, some of NHTSB's concerns about additional head protection may be addressed by this upgrade.

Milestones:

NPRM to upgrade FMVSS 214	May 2004 (completed)
Final Rule	2005-2006

Part 571.3, Definitions: NHTSA is currently working toward revising the definition of "designated seating position" that would incorporate mathematical formulae based on hip room measurements. The agency is concerned with seats that have the hip room to accommodate three occupants, but have only two seat belt assemblies. To address passenger van safety, NHTSA is also considering a formula that would require additional seat belt assemblies where the seat is capable of holding more than three occupants. This proposal would help ensure that each likely occupant be equipped with belt restraints.

Milestone:

NPRM February 2005

FMVSS 216, Roof Crush Resistance: Current plans for the upgrade of this standard include expanding its coverage to vehicles up to 10,000 pounds GVWR (with certain exceptions). Agency testing has shown that these vehicles barely pass the current FMVSS 216 requirements and would require stronger roofs to pass the upgraded requirements. This action relates to NHTSB recommendation H-03-16. On August 5, 2004 NHTSA staff briefed NHTSB about the progress made on this recommendation. NHTSB plans to close this recommendation following the publication of a final rule.

Milestone:

Publish NPRM for FMVSS 216 upgrade March 2005

Completed NHTSA Actions

The following are completed actions since the publication of the September 2003 Action Plan.

I. **Problem Identification**

On June 1, 2004, NHTSA released a report, *Analysis of Crashes Involving 15-Passenger Vans*.

The report provides an in-depth analysis of crashes involving 15-passenger vans to assess the effect of occupancy level on the risk of rollover. (DOT HS 809 735)

II. Consumer Information and Education

On June 1, 2004, NHTSA reissued a cautionary warning to users of 15-passenger vans because of an increased rollover risk under certain conditions. Similar warnings were issued in 2001 and 2002.

- Over 15,000 hangtags have been sent out since the advisory went out first week of June.
- Many calls have requested information on training materials. Have referred people to Guide One and National Safety Council's "Coaching the Van Driver" training kits.

In October 2003, NHTSA released a revised consumer information hangtag: *Reducing the Risk of Rollover Crashes in 15-Passenger Vans* hangtag. The hangtag summarizes safety messages in a checklist format. This revised hangtag has been distributed to our partners, including AAA, Automotive Service of Excellence (ASE), Jiffy Lube, National Association of Independent Insurers (NAII), and National Credit Unions, among others.

In October 2003, NHTSA disseminated rollover warning messages through a Championship Auto Racing Teams (CART) partnership, providing distribution of our materials at its races and through existing NHTSA mechanisms, namely, the NHTSA Hotline and the new NHTSA web site on rollover at www.nhtsa.dot.gov/rollover. Messages include cautionary warning messages to users of 15-passenger vans on the safety issues regarding these vehicles and the importance of wearing safety belts.

A new web page was created and is accessible by clicking on the *15 Passenger Van Safety* icon located on both the NHTSA and Buying a Safer Car home pages.

www.nhtsa.dot.gov/cars/problems/studies/15PassVans/15PassCustomerAdvisor.y.htm. The web page contains:

- The consumer advisory
- Three research reports (NCSA report on fatalities, Vehicle Safety Research reports on tire pressure and ESC)
- Three video clips comparing the Ford E-350 with the GMC Savana (w/ and w/o ESC)

- Electronic versions of the flyer and hangtags in English and Spanish and information on how to order
- Drop-in article

Several hundred national and regional organizations have been contacted and were sent information packets.

These packets included:

- An introductory letter from Dr. Runge thanking them for receiving the materials and helping to get the word out
- A copy of the consumer advisory
- A copy of a statistical sheet (from the NCSA fatality report)
- A copy of the drop-in article
- Copies of the hangtags in English/Spanish as requested by each organization

Types of organizations contacted:

- Dozens, if not hundreds, of major national and district level church associations
- National car rental agencies: Vanguard (National and Alamo), Cendant (Avis and Budget), Enterprise
- NHTSA regions
- Non-profits: AAA, 4-H, United Way, Boy Scouts of America, Boys & Girls Clubs
- Correctional: American Correctional and Jail Associations
- Migrant workers: United Farm Workers, National Center for Farm Worker Health
- College athletics: National Association of Intercollegiate Athletics

III. Countermeasure Research

On June 1, 2004, NHTSA released a report, *Testing the Effects of Tire Pressure Monitoring System Minimum Activation Pressure on the Handling and Rollover Resistance of a 15-Passenger Van*. This report provides the results of a study that measured the effects of modifying tire inflation pressure on the handling and rollover resistance of a 15-passenger van (DOT HS 809 701).

On June 1, 2004, NHTSA released a report, *Testing the Dynamic Rollover Resistance of two 15-Passenger Vans with Multiple Load Configurations*. In this study, NHTSA evaluated the dynamic rollover resistance of two 15-passenger vans, one with the electronic stability control (ESC) enabled and disabled (DOT HS 809 704).

IV. Vehicle Countermeasures

In May 2004, NHTSA issued an NPRM to upgrade FMVSS 214, Side Impact Protection. The proposed upgrade includes the addition of a dynamic side impact pole test. The proposed upgrade will apply to all passenger cars, and trucks, buses and multiple passenger vehicles with a GVWR of 10,000 pounds or less. In August 2004, NHTSA published an NPRM that proposes a requirement for lap and shoulder belts in rear center seats in all vehicles up to 10,000 pounds GVWR. In September 2004, NHTSA published an NPRM to require manufacturers to install a four-tire Tire Pressure Monitoring System (TPMS) that is capable of detecting when a tire is more than 25 percent under-inflated and warning the driver. The new Federal Motor Vehicle Safety Standard would apply to passenger cars, trucks, multipurpose passenger vehicles, and buses with a gross vehicle weight rating of 10,000 pounds or less, which include a substantial number of 12- and 15-passenger vans.

Deleted Actions

The following are actions that have been deleted from the plan:

I. Problem Identification

Develop Information on the Ownership and Usage of These Vehicles:

NHTSA has determined that collecting this type of information would be costly and time consuming. NHTSA believes that other actions in the plan that have been completed provide beneficial demographic information. NHTSA's recently published NCSA report, *Analysis of Crashes Involving 15-Passenger Vans*, provides an in-depth analysis of crashes involving 15-passenger vans, including the driver's age in relation to rollover rates and the correlation of fatalities to seating position. In addition, NHTSA will continue with its comprehensive consumer information and education efforts.

IV. Vehicle Countermeasures

Vehicle Labeling: NHTSA reconsidered its decision, based on results of consumer research, that development of a warning label would reduce the instances of rollover or reduce fatalities and injuries. Instead, NHTSA has increased its consumer information and education efforts.

Conclusion

NHTSA will pursue the actions included in this plan within the parameters of available staff, resources, and safety priorities. The *NHTSA Vehicle Safety Rulemaking Priorities and Supporting Research, 2003-2006* (July 2003) describes our top vehicle safety priorities aimed at reducing the greatest number of crashes, injuries, and fatalities in the coming years.

Survey of State Laws on 12- and 15-Passenger Vans Used for School Transportation*

While most States require the use of school buses to transport children to and from school and school-related events, some states do not.

- 29 states have laws or regulations that prohibit the use of vans for transporting public school students to and from school and school-related activities.
- 12 states have laws and regulations that prohibit the use of vans for transporting public school students to and from school, but allow the use of vans for school activity trips. [Note: One state has passed legislation that will prohibit the use of vans for activity trips after June 30, 2006.]
- 9 states allow the use of vans for transporting public school students to and from school and school-related activities. [Note: One of these nine states has passed legislation that will not allow the use of vans to transport students after June 1, 2008. Another state has a statewide, self-insurance pool that will not insure vans used to transport students after July 1, 2005.] In many states, the laws and regulations that apply to public schools may not apply to private and church-sponsored schools.

State	To & From School	To & From School-related Events	Comments
Alabama	No *	No *	*State laws do not apply to private schools.
Alaska	No *	Yes *	*State laws do not apply to private schools.
Arizona	No	Yes	
Arkansas	Yes	Yes	
California	No	No	
Colorado	Yes *	Yes *	*State-wide, self-insurance pool for school districts will not insure vans after July 1, 2005.
Connecticut	No	Yes	
Delaware	No	No	
Florida	No *	No *	*Does not apply to private schools or companies that contract directly with parents.
Georgia	No *	Yes *	*State laws do not apply to private schools.
Hawaii	Yes	Yes	
Idaho	No *	Yes	*State statute allows for some exceptions, e.g., students with special needs in remote locations without school buses. * State laws do not apply to private schools.
Illinois	No	Yes	
Indiana	No *	Yes **	*Special education students may be transported in vans. **After June 30 2006 vans will be prohibited. State laws do not apply to private schools.
Iowa	No	No	

Kansas	No	No	
Kentucky	No	No	
Louisiana	No *	No *	*State laws do not apply to private schools.
Maine	No	No *	*Private schools are exempt from this state regulation.
Maryland	No	No	State law not clear on private schools.
Massachusetts	Yes	Yes	
Michigan	No	No	
Minnesota	No	No	
Mississippi	Yes *	Yes *	*State law does not prohibit the use of vans but Department of Education will not approve van purchases.
Missouri	No *	Yes *	*State laws do not apply to private schools.
Montana	No *	No *	*State laws do not apply to private schools.
Nebraska	Yes	Yes	
Nevada	No	Yes	
New Hampshire	No	No	
New Jersey	No	No	
New Mexico	No	No	
New York	No	No	
North Carolina	No *	Yes *	*Private schools not covered by state rules.
North Dakota	Yes *	Yes *	*Not allowed after June 1, 2008. Vans can no longer be purchased for these purposes after March 1, 2003. State laws do not apply to private schools.
Ohio	No	No	
Oklahoma	No	No	
Oregon	No	No	
Pennsylvania	No *	No *	*Unless the van was registered as a bus in Pennsylvania prior to March 1, 1993, or titled to a public private or parochial school prior to March 1, 1993, and was registered as a bus to such school prior to September 15, 1993.
Rhode Island	No *	No **	*Child care organizations are exempt and can use vans for transportation to and from school. **Vans purchased prior to January 1, 2000 can be used until January 1, 2008.
South Carolina	No *	No *	*Vans purchases prior to July 1, 2000, can be used until June 30, 2006.
South Dakota	No	No	
Tennessee	No	Yes	
Texas	No *	Yes	*Private schools not covered by state rules.
Utah	No	No	

Vermont	Yes	Yes	
Virginia	No *	No *	*State laws only apply to public schools.
Washington	No *	No *	*State rules only apply to public schools.
West Virginia	No	Yes	
Wisconsin	Yes	Yes	
Wyoming	No *	No *	*State rules only apply to public schools.

*The National Association of State Directors of Pupil Transportation Services surveyed its State Director members to determine the current state-by-state laws/regulations on the use of 12- and 15-passenger vans to transport students to and from school or on school-related activity trips.

Appendix C

Survey on 15-Passenger Van Use at Washington Community Colleges



Office of Financial Management
Risk Management Division
Loss Prevention Review Team

Survey on 15-Passenger Use in Community Colleges

1. Does your college still use 15-passenger vans? Yes No

2. In no, when and for what reason did you stop using 15-passenger vans?

Please explain:

3. If no, what alternatives to vans are being used?

Please explain:

If you answered No, you are done with the survey. Thank you.

4. If yes, does your college plan to continue to use 15-passenger vans?

Yes No

5. How many 15-passenger vans does your college have?

6. What training do you require for drivers?

Please explain:

7. Any restrictions on driving or manner of use (i.e., last seat out, no luggage in open areas, age limit, driving experience etc.)?

Please explain:

8. What college programs or activities are these vans used for?

Please explain:

9. How often are most of the 15-passenger vans used?

Once a Week Once a month Other (Please explain):

10. Any concerns or issues with 15-passenger vans since you started using them?

Yes

No

If yes, please explain:

11. Who does maintenance on the 15-passenger vans?

12. If you use a rental agency for your vans, do you sign a standard agreement with the rental company or customize it to limit the schools liability?

Please explain:

13. Do all applicable 15-passenger van policies apply to rental vans?

Please explain:

Thank you for your time...

College	1	2	3	4	5	6	7	8	9	10	11	12	13
Centralia College	Yes			Yes	4	The required training is reading the hangtags in the vans and the advisory information on the two required documents that they have to sign. We are researching other training program options.	Drivers must be at least 18 years of age w/ two years driving experience. We also require that a college staff member either drive the vehicle or are a passenger. If taking more than one vehicle, a college staff member must be in one of the vehicles. Also, we have placed a monitoring/tracking chip in the vans that gives a report on the speed that the driver was going during the trip. If it shows the driver was speeding, they are warned. If it continues, they will not be permitted to utilize the motor pool vehicles.	Sports/field trips/group meetings.	Once a week or more. Depends on sports season	Yes. Concern about the age of the driver and experience driving a vehicle of this size.	Local auto mechanic and some are done by our diesel technology students, under the supervision of instructors.	Customize it with Enterprise Rental Car as they are set up with the state of Washington.	Not at this time. It is very rare (maybe 2-3 times/yr) that we rent a 15 pass. van.
Clark College	Yes			Yes	4	Van training/certification course ~ College staff person proctors.	Last bench seat has been removed from all vans; no luggage racks, towing devices or ladders are allowed on vans; van driver(s) must be a minimum of 21 years of age; van driver(s) must possess a current and valid drivers license.	Athletic events, field trips/tours related to College classes/ programs, College meetings, etc.	More than once a week	Yes. Safety and liability issues always of utmost concern	Part-time temporary employee does routine checks to vans; outside maintenance shop performs any repairs/service to vans.	We request Loss Damage Waiver insurance coverage on the rental.	Yes
Clover Park Technical College	Yes			Yes	2	Drive must successfully pass a Type II School Bus Driver Training course	Must be 21 or older and the vehicle is limited to carrying passengers and their personal belongings	Senior center	Once a week	No	Automotive Specialists in Tacoma	N/A	N/A

College	1	2	3	4	5	6	7	8	9	10	11	12	13
Columbia Basin College	No	As of December 16, 2003, all travel in 15-passenger vans was banned after a rollover accident on 12/15/2003	Smaller 7 passenger vans such as the Dodge Caravan and Pontiac Montana can be rented through the state contracted vendor. Commercial bus rental is done for larger groups.										
Edmonds Community College	No	Concerned with their safety	We have taken out the backseats and limit the number of riders										
Everett Community College	Yes			Yes	2	Reads Van Drivers Basic Loss Prevention Guide, fills out the safe driving Practices Acknowledgement Statement along w/ a copy of current license. Motor pool supv. then interviews the driver to verify license and paperwork is correct.	Only 14 passengers per van, including the driver. Must be a College employee, student, or registered volunteer and be 18 years of age and have 2 years of driving experience. Must have valid WA or other state license	Athletics to class field trips	About 3 times a week	No	The dealer	The standard agreement from the rental company	Yes
Grays Harbor College	Yes			Yes	4	A 3 hour training course repeated every 2 years	Limit of 9 occupants including driver, 2 years driving experience. We are using the state "valid license to drive and driving experience statement"	All needed	Mostly used for athletic department, usage depends on schedules	Yes. Same concerns expressed at risk management meetings over the past several years.	College employees and local vendors as needed	N/A	N/A

College	1	2	3	4	5	6	7	8	9	10	11	12	13
Green River Community College	Yes			Yes	2	Drivers are screened and trained in accordance with NHTSA's video and a memo drafted by our department highlights information from WA state Risk Management. Copies are kept in vehicles.	Validation of WA Drivers License and past driving experience with 15-Pass Vans. Proof of Insurance. Training on Regulations on usage, passenger seating, and luggage storage.	Instruction, athletics, transport of students to/from off-campus parking and student events	Transporting students to/from off-campus parking	No	Under the direction of State motor pool, maintenance and minor repairs are preformed by GRCC Motor Pool's staff mechanic	Departments who rent off campus rent vehicles from the state contracted agencies. We believe the agency and GRCC follow the regulations as established by the contract	Yes. It is the responsibility of the dept renting off-campus to use drivers that they have trained, and ascertain that their drivers are abiding by the regulations established by DOT.
Highline Community College	No	Because of the deaths from teams/activities using 15 passenger vans we decided to no longer use them.	We use 12-passenger vans										
Lake Washington Technical College	Yes			Yes	3	Info required by SAAM 70.40.32. Properly filled out and signed forms covering valid drivers license and experience and the safe driving practices acknowledgement	No back seats in any van, limit of 9 people total in van, age and driving experience as in SAAM.	Mostly program field trips	Up to 2 times a week	No	College does small stuff, auto repair company does larger repairs	N/A	N/A

College	1	2	3	4	5	6	7	8	9	10	11	12	13
Lower Columbia College	Yes			Yes	3	View a film, sign state forms. 99% of staff that use vans have driven them for years	No restrictions. Max number is 11 passengers w/ no luggage. 9 passengers with luggage (including driver)	Mostly sports and some field trips	Depends on sports season	No	Have their own mechanic	We sign a standard rental agreement with our local Ford agency who runs a car rental business also	Yes. Rental use is no different than college polices and procedures for vans.
Olympic College	No	12-passenger vans have fewer liability issues and we lease them from State Motor pool at a substantially lower cost then the state contract for vehicle rentals											
Peninsula College	Yes			Yes	4	Written instruction on 15 passenger van use and safety	Passenger limit of 9 per vehicle, no back seat, driving experience or	Class/instruction on field trips, employee training seminars and sports when our bus is out of service	Once a week	No	Commercial garage or dealership	N/A	N/A
Pierce College	Yes			Yes	4	Must be 25, training is now being planned	9 years driving experience, last seat out, no overhead luggage, luggage under seats	Athletics, Student programs, meetings	3 times a week	Yes. Really have to reduce speed and they don't corner well. High winds cause swerving. Not aerodynamic	Take them to dealerships	Yes	Yes, we use the same precautions about luggage when we rent a van. We rent 12-passenger vans

COLLEGE	1	2	3	4	5	6	7	8	9	10	11	12	13
Renton Technical College	No	Never used	N/A										
Seattle Community Colleges, Dist. 6													
Seattle Central	Yes			Y	1	CD-ROM	Drivers must be employees of college, no luggage in back	Student field trips	Varies	Yes, rollovers	Outside shops	No	Yes
Seattle North	Yes			Y	1	Small Lecture and given materials to read.	Last seat out making van an 11-passenger van	Wellness Center/ Basketball teams, field trips	Once a week	NO	Combination of staff and vendors	N/A	NA
Seattle South	Yes			No	2	Drivers must watch a DVD for safe driving of vans, complete the test and sign a "safe driving practices" statement. Vans are being phased out. College has ordered a smaller van	Limitation on equipment, two seats were removed to limited to 8 passengers (incl. Driver)	Student programs for student government, student clubs and recreation and weekend events.	Once a week	No	Scheduled w/ outside agency	N/A	N/A
Shoreline Community College	Yes			Yes	2	A "van test" is required that involves low speed maneuvering, parking and listening to instructions on safety matters. Also the State provided training/instruction manual is required reading for all drivers.	The last seat is removed and that area is used for luggage, equipment only. All drivers must be staff members with acceptable driving records.	Athletic team transports, club events, college events within the State.	Once a week	Yes. Safety concerns until the last seat was removed.	Commercial garage	Standard	Yes
Skagit Valley College	Yes			Yes	4	We require formal class time and individual behind-the-wheel driving.	No trailers, or luggage racks.	Class field trips and athletics.	Once a week	No	Normal review is performed in house. Other maintenance reviews and repairs are performed by local business.	N/A	N/A

COLLEGE	1	2	3	4	5	6	7	8	9	10	11	12	13
South Puget Sound Community College	Yes			Yes	1	View Coaching the Van Driver II video and taking test	Fill from front first. If possible, no passengers in back row. Use back row for equipment only	Student programs - club trips; faculty - class trips; and Athletics - sporting events	15 to 20 times a month	No	Terry's Automotive in Tumwater. Part time personnel do general upkeep	N/A	N/A
Spokane Community Colleges, Dist. 17	Yes			Yes	12	Go over info in the OFM Loss Prevention guide and watch a 15 min video from "60 minutes" on van rollovers	No luggage racks, last seat is taken out, min. 18 years old with 2 years exp. Has to have supervisors signature on Valid License to Drive form on file and in database	Athletics, Environmental Sciences, field trips, Head Start and Daycare children are transported on our 26-passenger bus or our 15-passenger mini-buses	Daily. Some are double- or triple-booked for the day, every week, many for overnight stays. Rarely used during summer break.	Yes. And because of these concerns we have replaced 2 or our vans with federal standard 15-passenger mini-buses. We are in the process of replacing a third. We also added 2 8-passenger vans to the fleet. The 15-Passenger vans are too unstable.	College staff and commercial mechanics	N/A	

COLLEGE	1	2	3	4	5	6	7	8	9	10	11	12	13
Tacoma Community College	Yes			No	2	Special Written instructions with sign off sheet, labels in vehicles	Removed last row to limit to 10 passengers, no rooftop luggage	Student programs, athletics	Once a week	No	Facilities Department	N/A	N/A
Walla Walla Community College	Yes			Yes	7	Read OFM Loss Prevention Guide, complete Safe Driving Practices Acknowledgement Statement & Valid License to Drive and Driving Experience Statement. Will soon have to repeat this process every 2 years.	Minimum two years driving experience, clean driving record, maximum capacity is 15 although 10 is optimal, no luggage racks or towing packages, heavy duty tires that are checked regularly	Athletic competitions, field trips, professional development	Once a week or more	No	Primarily handled on campus through our automotive mechanics and body repair programs; tires through Les Schwab	N/A	N/A
Wenatchee Valley College	Yes			Yes	5	The vans are driven by college employees only. Drivers must review the basic loss prevention guide provided by OFM and they sign the safe driving practices acknowledgement statement and valid license to drive and driving experience statement.	Removed the last seat from each van. The seating capacity is 11 passenger which includes the driver. Only staff can drive the vans and the rear area is used for luggage only	Student organizations, class field trips, athletics	Once a week	No	Staff in the student programs office	N/A	N/A
Whatcom Community College	Yes			Yes	3	21, driver's license, proof of insurance. Must go through training session and pass an exam	No luggage racks	Sports teams and field trips	Once a week	No	Local Service Company	N/A	N/A

COLLEGE	1	2	3	4	5	6	7	8	9	10	11	12	13
Yakima Valley Community College	Yes			Yes	4	Van Drivers go through a training presentation made by Central Washington University revised with the state OFM guidelines, forms, & YVCC Policies.	YVCC has removed the rear seats in all vans and adopted a nine passenger limit including the driver. Requested that luggage be stored under seats not in back & set a five-year driving experience requirement.	Athletics, student clubs and programs use our vans.	Once a week	Yes. Dual wheel conversion has been researched.	Our maintenance is done through the local School District Bus maintenance department for yearly ABC Inspections, Oil Can Henry's has been used for oil changes, and Carey Motors is used for other maintenance of the vans when time constraints limit our use of the local school district services.	We use a customized plan through Enterprise when we have to rent vans from an outside agency, which is bid out by the state.	Yes.

Appendix D

University of Virginia's Phase-Out Policy for 15-Passenger Vans

Appendix D- University of Virginia's Phase-Out Policy for 15-Passenger Vans

Phasing Out the Use of 15-Passenger Vans

To: Vice Presidents, Deans, and Department Heads

CC: Rick Schupp, Director, Risk Management

Date: 03/12/02

From: Yoke San Reynolds, Vice President for Finance

Subject: Phasing Out the Use of 15-Passenger Vans

In response to the safety concerns outlined below, the attached **Policy on Phasing Out the Use of 15-Passenger Vans** has been adopted, effective immediately. For assistance in chartering buses or renting alternatives to 15-passenger vans, please contact Ana Lynch in Procurement Services at 924-4219 or aml8q@virginia.edu.

Concerns regarding the use of 15-passenger vans:

- State's Division of Risk Management has issued an advisory indicating that there are serious safety issues regarding the use of 15-passenger vans. It refers to the National Highway Traffic Safety Administration's warning entitled *The Rollover Propensity of Fifteen-Passenger Vans*. Based on the SSF (Static Stability Factor), a 15-passenger van with a driver is 21% less stable than a passenger car with a driver.
- NHTSA's analysis revealed that loading the 15-passenger van causes the center of gravity to shift rearward and upward, increasing the likelihood of rollovers. Based on crash data, when the van was loaded with ten or more occupants it was almost three times as likely to rollover as compared with less than 10 occupants, with five to nine occupants it was almost two times as likely to rollover as compared with less than 5 occupants. It was inherently unstable when maneuvering to avoid an accident or taking sharp turns, particularly in poor weather conditions when measured at 15-occupant loading.
- During the past several years there have been serious accidents, some involving fatalities, when these vans have been used to transport students. In fact, these vans do not meet federal school bus safety standards and are no longer being used by the local school districts to transport students.
- The standard design of the 15-passenger van does not meet the normal reinforcement requirements of passenger cars or school buses in the area behind the drivers seat.

POLICY ON PHASING OUT THE USE OF 15-PASSENGER VANS Effective 03/12/02

1) High school and younger students must not be transported in 12 and 15-passenger vans, or other specialty vehicles not meeting school bus standards.

2) 15-passenger vans may not be purchased or rented, effective immediately.

3) On 07/01/04 the use of currently owned 15-passenger vans for passenger transportation use is no longer permitted.

Appendix D- University of Virginia's Phase-Out Policy for 15-Passenger Vans

4) Currently owned 15-passenger vans may be used for transporting passengers until 07/01/04. Strict adherence to the following Best Practices is required until their use is eliminated.

Best Practices

1. Restrictions on van usage:

- a. Out of town travel is prohibited.
- b. Drivers may not drive between 9:00 pm and 6:00 am without special permission from the Dean or Department Head.
- c. Drivers must obey all traffic regulations, not exceeding posted speed limits, and never to exceed 50 mph at any time.

2. Allow only trained, certified, and authorized drivers to operate vehicles:

- a. Students who are not employees must not operate 15-passenger vans or trucks.
- b. Minimum age of driver must be 21 unless the driver has a CDL or EVOC Certification. Every driver must possess a valid driver's license.
- c. Driver must have a minimum of two years driver's experience.
- d. A driver's transcript will reveal no more than one moving violation within the last 12 months, and the driver will be required to verify this. Human Resources will perform a driver's transcript check by request.
- e. There must be no violations or traffic stops related to alcohol or drugs.
- f. Successful completion of the University's 15-Passenger Van training program and road test, provided by Parking & Transportation, within the past two years.

3. Drivers are responsible for limiting occupants and cargo weight, inspecting the vehicle prior to leaving the parking site and monitoring the vehicle for proper operation:

- a. The last two rows of seats must be removed, and occupants must be limited to 8. You must further reduce occupants by 1 for every 150 lbs of cargo.
- b. Any defects must be noted and must be corrected prior to departure.
- c. Weather conditions must be evaluated and travel must be curtailed when conditions are hazardous. (This includes but is not limited to fog, heavy rain, snow, ice, high winds, ... etc.)
- d. All equipment and luggage carried must be secured in a safe manner.
- e. Trailers and roof-mounted loads are prohibited. Vehicles must not be overloaded.
- f. Tires should be properly inflated based on the load carried.
- g. A cell phone, charged battery and a battery charger must be provided for each vehicle/trip. Drivers must not use cell phone while driving.
- h. Vehicle headlights must be on when driving.
- i. Drivers must not drive a vehicle that is not operating properly.

Appendix D- University of Virginia's Phase-Out Policy for 15-Passenger Vans

4. Passengers must adhere to the following rules:

- a. All passengers must wear seat belts at all times while traveling.
- b. Alcohol and controlled substances are prohibited.

[Phasing Out the Use of 15-Passenger Vans VII.H.4](#)

Recommendations on 15-Passenger Van Alternatives

To: Vice Presidents, Deans, and Department Heads

Date: April 29, 2002

From: Rick Schupp Director

Subject: Recommendations on 15-Passenger Van Alternatives

The Office of Risk Management has received inquiries regarding the use of small buses and other vehicles as alternatives to the banned 15-passenger vans. Recommendations on the use of alternative vehicles are provided below:

1. Be careful not to use vehicles (small buses or vans) that are basically modified 15-passenger vans with only cosmetic changes and not safety modifications. Any vehicle which is basically a commercial "cutaway" vehicle with an E-350, E-250, 3500, or 2500 chassis (15-passenger van chassis) should have dual rear wheels (two wheels on each end of the rear axle) to promote greater vehicle stability or meet Federal school bus safety regulations Title 49 Part 571 Federal Motor Vehicle Safety Standards* (with the exception of regulations #108 involving school bus lights, and #131 involving school bus stop bars). These vehicles typically have 15-passenger van front ends with the remainder of the passenger body "cut away" and replaced with a larger body. Note: if the primary purpose is for the transportation of high school and younger students, it is required that the vehicle meet Federal school bus safety regulations as stated in the Policy on Phasing Out the Use of 15-passenger Vans. (*To ensure that a vehicle meets this standard, ask the leasing agency to verify that the bus meets the standard. Also you can refer to the following information on the web: http://www.access.gpo.gov/nara/cfr/waisidx_00/49cfr571_00.html) (Please contact Tim Guthrie or Ana Lynch in Procurement Services if you need guidance on vendors in the area who would be able to provide you with 15 passenger van alternatives that meet University safety standards.)

2. Whenever a University department hires transportation services that includes drivers, such as a charter bus service, it should make certain that the company being hired has the appropriate commercial automobile insurance. It is recommended that the company have at least a liability limit of \$1,000,000 per accident for all owned, hired, and non-owned vehicles, and it would be appropriate to ask them to provide you with a certificate of insurance as evidence of coverage. You may fax (2-2635) these to the Risk Management Office for review and advice. Questions regarding procurement guidelines for such activities should be referred to University Procurement.

Appendix E

15-Passenger Van LPRT Document Log

APPENDIX E - 15-Passenger Van LPRT Document Log

Matter No.: 04-77
 Agency: WSU
 Other identifier: 15-Passenger Van Rollover

Document	Source	Date in	Confidential	Bate No.
WSU Preliminary Draft Report & Supporting Documentation of 15-Passenger Van Rollover, March 6, 2004	WSU	9/23/04	Yes	
NHTSA Consumer Advisory, June 1, 2004	www.nhtsa.dot.gov			000001
NHTSA Action Plan for 15-Passenger Van Safety, September 2003	www.nhtsa.dot.gov			000003
NHTSA: "NHTSA Repeats Rollover Warning to users of 15-Passenger Vans," April 15, 2002	www.nhtsa.dot.org			000012
NHTSA Research Note, "The Rollover Propensity of Fifteen Passenger Vans" by Garrott, Rhea, and Subramanian				000014
NHTSA Consumer Advisory, April 9, 2001	www.nhtsa.dot.gov			000027
NHTSA, "Reducing the Risk of Rollover Crashes in 15-Passenger Vans"	www.hntsa.dot.gov			000029
State Guide: "15-Passenger Van Drivers. Basic Loss Prevention Guide," Risk Management Division, June 2003 (Manual, 20 pp. + Appendices)	OFM			000033
Division of Risk Management – Office of Financial Management, "15-Passenger Van Overview, WA State Government	OFM			000034
1/10/03 Memo to Agency Directors and College Presidents from Marty Brown RE: New Requirements for 15-Passenger Van Safety	OFM	1/10/03		000035
OFM WA State Lost Prevention Requirements for Operation of 15-Passenger Vans	OFM			000037
State Administrative and Accounting Manual, 70.40.32, WA State loss prevention requirements for operation of 15-passenger vans	OFM, www.ofm.wa.gov/policy/70.40.htm			000041
Columbia Basin College December 15, 2003, 15-Passenger	Columbia Basin College.	12/26/03	Yes	000044

Document	Source	Date in	Confidential	Bate No.
Rollover Incident Report to OFM	Contact, William E. Saraceno			
Standard Tort Claim Form, Tim Bardesson		03/19/04	Yes	000046
Memo from Tracy Witeck (CCC) to Meg Jones, dated August 17, 2004 on 15-Passenger Van Use and attached documentation on the college's van requirements and decision to ban vans.	Tracy Witeck, Columbia Basin College	08/20/04		000048
Columbia Basin Travel Forms	Columbia Basin College			000069
Tom Nguyen's Authorization to Travel forms	Columbia Basin College		Yes	000071
Jay Muse's Travel Forms	Columbia Basin College		Yes	000074
15-Passenger Van Drivers, Basic Loss Prevention Guide, 2/2003 (20 Page manual plus appendices)	OFM (through Columbia Basin College)			000076
Accident Report of the March 6, 2004 15-Passenger Rollover dated August 2004	WSU	9/23/04	Yes	000077
OFM Form for Reporting incidents to OFM	WSU	9/23/04	Y	000085
SF-137, State of Washington Vehicle Accident Report for Melissa Ryan, received by WSU 3/31/04	WSU	9/23/04	Y	000086
State of Washington Police Traffic Collision Report received by WSU Police Department 5/5/04	WSU	9/23/04	Y	000090
Whitman Co. Sherriff's Office Investigative Referrals	WSU	9/23/04	Y	000094
WSU Sport Club Federation Council Women's Rugby Sanction, 4/31/04	WSU	9/23/04	Y	000099
Accident Notes by Jean Ostrander, University Recreations' Sport Club Coordinator	WSU	9/23/04	Y	000100
Incident Reports: Benson, Gren, Kmiecik, Montgomery, Revish, and Ryan	WSU	9/23/04	Y	000102
University Recreation Sports Club Federation Registration and Assumption of Risk and Release of Liability	WSU	9/23/04	Y	000108
Travel Authority for 3-6-04 Ellensburg Trip	WSU	9/23/04	Y	000144
Rugby Teams Student Driver Authorization and van driver documentation: Keck, Kmiecik, Mintier, and Mottet	WSU	9/23/04	Y	000149
Rugby Team's Emergency Van Binder	WSU	9/23/04	Y	000179
WSU Safety Policies and Procedures Manual S35.10, Requirements for Passengers and Drivers, November 2003	WSU	9/23/04	Y	000211
University Recreation Risk Management Manual, January 2004	WSU	9/23/04	Y	000220 (63 pp.)

**APPENDIX E -
15-Passenger Van LPRT
Document Log**

Document	Source	Date in	Confidential	Bate No.
The Sport Club Federation Council, undated	WSU	9/23/04	Y	000221
Standard Tort Claim, Scarlet Rae Benson, rec'd by OFM 4/19/04	OFM	9/23/04	Y	000255
WSU – Melissa Ryan's Student Driver Authorization documentation	WSU	10/14/04	Y	000258
WSU's Alcohol and Drug Policy	www.wsu.edu/police/alcohol-drug-policy.html	10/14/04	Y	000266
WSU's Student Handbook – Alcohol and Drug Policies	www.studentaffairs.wsu.edu/handbook/AlcoholDrug.asp?l=2&menu=4	10/14/04		000268
Best Practice Standards for Vanpools	www.wstip.org/services/bpfv.html	10/20/04		000273
Fax from Rick Fadness, handout used during WSU's Van training, Collision Reporting Procedures, Coaching the Van Driver II Response Book, page 29	Rick Fadness, WSU	11/19/04		000282
Email to Rick Fadness from Christian Wuthrich (WSU)	Rick Fadness, WSU	11/10/04	Yes	000288
Whitman Co Sherrif's Office Law Incident table	Whitman Co. Sheriff's Office	11/10/04	Yes	000290
Washington State Patrol Report of Investigation Narrative	WSP	11/10/04	Yes	000326
Whitman Co Sherrif's Office Statement	Whitman Co. Sheriff's Office	11/10/04	Yes	000327
Major Accident Investigation Team (MAIT), Case Summary for Columbia Basin College Accident on 12/15/03	WSP	11/23/04	Yes	000328
MAIT Report of Investigation by Detective Greg Wilcoxson #977	WSP	11/23/04	Yes	000335
MAIT (Case number 03-014751), Dynamics and Speed Analysis	WSP	11/23/04	Yes	000352
MAIT (Case number 03-014751), Officer Summary	WSP	11/23/04	Yes	000354
MAIT (Case number 03-014751), Appendix A Reports and Publications Review	WSP	11/23/04	Yes	000357
MAIT (Case number 03-014751) Roadway Environment	WSP	11/23/04	Yes	000362
Pullman Site Photos (39 Photos) Skid marks.. (*this was not sent to team members as the pictures are similar to the pictures on the CD-ROM)	V. Waltz, Deputy Sheriff, Whitman County	11/9/04		000363
15 Passenger Van CD-ROM	Whitman County Sheriff's Office	11/9/04		000383

Document	Source	Date in	Confidential	Bate No.
<p>Contents:</p> <ul style="list-style-type: none"> • MsgA008.wav and MsgA009.wav files, Interview with Melissa Ryan • MsgA008.vwd and MsgA009.vwd files, Interview with Melissa Ryan (same interviews, different format) • 109-0909_IMG.JPG thru 110-1002_IMG.JPG (94 total image files) Pictures taken the night of the accident • DSCF0001.JPG – DSCF0019 (19 total image files) Pictures of accident scene at a later date 				
Note from Rick Fadness and Police Report from WSUs 11-13-94 Van Rollover	WSU – Rick Fadness	1/24/05		000384
News article “State, Prosser family settle” December 17, 2004	Tri-City Herald (tricityherald.com)	12/21/04		000398
Email from team member Carolyn Newsome to team members regarding driver, dated 6/10/05	MS Outlook, Meg Jones	6/10/05		000401
NHTSA Traffic Safety Facts, May 2005	NHTSA	6/15/05		000403
“Reducing the Risk of Rollover Crashes in 15-Passenger Vans”	www.nhtsa.dot.gov	6/15/05		000409
Section “Interpretation of Odds Ratios” pp. 25-30 of the <i>Analysis of Crashes Involving 15-Passenger Vans</i> technical report. Published by NHTSA in May 2004.	www.nhtsa.dot.gov	6/15/05		000413
“New Safety Advisory on 15-Passenger Vans Issued	www.nhtsa.dot.gov	6/15/05		000419