

# CTRAFFIC SAFETY *onnection*



September 2009

Connecting Oregon's Community Traffic Safety Advocates

Volume 7, Number 9

## Building Safer Communities and Bicycle Safety Mini Grants

It is year end and Kate Murphy the Community Traffic Safety Coordinator is working hard to review and process current grantee final evaluations. Congratulations to all 2008/2009 grantees, your projects are wonderful assets to your communities.

With one cycle ending another is beginning; 2009-2010 Building Safer Communities and Bicycle Safety Mini Grant applications are in. Kate Murphy is feverishly reviewing, revising, and compiling all this wonderful project information. She is hoping to have packets prepped for review committees by the end of the month, contracts drafted by mid October, and final approval by November.

If you have any questions about Mini Grant Programs for next year or about your current application feel free to contact Kate: 503-643-5620, 800-772-1315, [katem@actsoregon.org](mailto:katem@actsoregon.org).



## Distracted Drivers in School Zones



### Background and Related Research:

Cell phones, music devices and fast food have all become a major part of American culture. For example, cell phone use has rapidly increased from 38 million users in the 1980s to 210 million



users in the late 1990s thus demonstrating the dependence people have on these devices. However, safety concerns related to talking or texting on cell phones, using global positioning devices (GPS) for navigation, and listening to music while driving continue to be documented.

The main issue deals with the inability of the human brain to effectively perform multiple tasks while driving at the same time. During every moment of the "Driving Task," vehicle operators are constantly being challenged by a changing environment and road conditions; by the actions of other drivers, bicyclists, and pedestrians; and by the actions and behavior of passengers and objects in the car. Many drivers also operate their vehicles under less than ideal conditions such as being tired or being physically/emotionally stressed. The sum effect of all these factors makes driving an extremely complex task even under the best of conditions.

While it is very hard to measure the actual number of crashes caused by cell phones, it is estimated that drivers are at far greater risk when talking or texting on phones, according to the recent study by the Virginia Tech Transportation Institute. In this study they documented an almost six times greater risk when dialing a phone and 23 times greater risk when texting. Similarly, other studies show that automobile drivers using a phone are four times more likely to crash than drivers not using a phone. This is comparable to drivers with blood-alcohol content of .08.

The National Highway Traffic Safety Administration estimates that in 2003, 240,000 car

crashes and 955 deaths occurred due to cell phone use. This may be an underestimation of the true number since it is particularly challenging for police and crash investigators to identify cell phone use as a factor contributing to a crash or death. Knowing this, the Harvard Center for Risk Analysis estimated that cell phone use was a factor in 6% of crashes in 2003. That estimation translated to 636,000 crashes involving 12,000 major injuries and 2,600 deaths.

Distractions, however, are caused by more than just cell phones and texting devices. In 2001, the University of North Carolina's Highway Safety Research Center conducted a "naturalistic" study where they video recorded 70 drivers for 10 hours in a week and observed the types of activities drivers engaged in while operating their vehicles. They reported that 15% of the time the vehicles were moving drivers were in an active conversation with passengers; 5% of the time they were preparing, eating or spilling food; 4% of the time they were reaching or leaning; 2% of the time they were smoking; 1% of the time they were using a cell phone; and 1% they were adjusting the radio/CD/music device controls.

A recent Canadian study used spatial analysis to show that the 150 meter area around schools had the highest proportion of child-car collisions and proportion of fatalities as compared to areas 300 meters or more away from schools. Moreover, this study showed that 50% of these collisions occurred in months and times-of-day when children were most likely to be walking to or away from school. While this study is important in establishing that excessive risk exists in school zones, it does not describe factors that are associated with this risk. Previous studies have shown that factors associated with child pedestrians and car collisions include school density, population density, traffic volume, rush hour time periods, socioeconomic status, season, and the spatial relationship between schools, streets, and parking areas. To date, no studies have addressed the issue of distracted drivers in school zones.

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# Board Member Feature



Ralph Browning has worked as the Traffic Engineering Technician for the City of Medford for over 23 years. His work includes all facets of designing safe roadways with proper lighting and appropriate traffic control devices, as well as pedestrian and bicycle facilities for each varying situation.

Ralph enjoys dealing with the traffic safety concerns of the citizens of Medford through his role as staff liaison to the Medford Traffic Coordinating Commission.

After attending ACTS Oregon conferences for years and gleaning a myriad of great information to take back to his job, it was only natural that he would jump at the chance to bring his traffic engineering expertise to the ACTS Oregon Board when the opportunity arose.

Ralph is one of the newest members of the Board, just completing his first year of service. He looks forward to many years of involvement in working to reduce fatalities, injuries and crashes throughout Oregon.

## Distracted Drivers in School Zones

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### Methods:

In order to better understand the magnitude and characteristics of distracted drivers in active school zones, the study's coordinators used road-side observations of drivers in active school zones. Observations were made by trained observers at 20 middle schools located in 15 states.

Each study site had a SAFE KIDS coalition member serving as a study coordinator who was trained on data collection protocols. Each data collector was stationed approximately at the middle of the school zone road segment, assigned a lane of traffic and instructed to face traffic and record observations by looking through the front windshield of an approaching car as to avoid any obstruction from side window tinting. A paper data collection form was designed to simplify rapid documentation of driver and vehicle characteristics such as gender, seat belt use, type of vehicle (car or pickup/SUV/Minivan), vehicle classification (private or commercial). Each study site made multiple observations on three different days of the week during a normal school session. Driver distraction rates were calculated as the number of drivers engaging in a distraction divided by the total number of vehicles observed.

### Results:

Of the 41,426 cars that were observed traveling through an active school zone, one in six drivers were distracted. Both male and female drivers had high distraction rates. It was calculated that for every 1,000 female drivers 187 were distracted and for every 1,000 male drivers 154 were distracted. Cell phone/electronics was the leading distracter, followed by eating/drinking/smoking, reaching/looking behind, grooming, and reading. Female drivers were more distracted by cell phones and grooming activities than men; however, males and females were distracted by



eating, reaching behind, and reading about equally.

The majority of distracted drivers were observed during the afternoon school zone hours as compared to the morning hours. Distracted drivers appeared more frequently in school zones without flashing lights and in school zones that had a daily

traffic volume of 10,000 or more cars. School zones that have an associated decrease in speed limit showed a higher distracted driver rate than school zones that did not change the speed limit. Drivers of larger vehicles such as sports utility vehicles, pickup trucks, and minivans were more distracted than car drivers. Females in commercial vehicles were significantly less distracted than females in private vehicles whereas males had the opposite trend where they were more distracted in commercial vehicles as compared to private vehicles. Regardless of gender, if the driver was not wearing their seatbelts then they were 35% more likely to be distracted as compared to drivers using seatbelts. Likewise, drivers in states that restrict the use of handheld electronics for all drivers (regardless of age) were 13% less likely to be distracted as compared to drivers in states that have no restrictions.

It was observed that unbelted female drivers were 40% more likely to be distracted as compared to belted female drivers and that female drivers observed in the afternoon school zone times were 29% more likely than female morning drivers to be distracted. When analyzing the distracted driving behaviors among males in school zones it was observed that unbelted males were 38% more likely to be distracted than belted males and that males on high traffic volume roads were 17% more likely to be distracted than male drivers on low volume roads. Likewise, males driving large vehicles (SUVs/pickup trucks/minivans) were 17% more likely to be distracted than males in cars.

For the entirety of this article visit, [www.usa.safekids.org/tier3\\_cd.cfm?content\\_item\\_id=27371&folder\\_id=301](http://www.usa.safekids.org/tier3_cd.cfm?content_item_id=27371&folder_id=301).



## Technician Renewal Course

July 14th, ACTS Oregon offered a CPS certification renewal course at their office in Beaverton. This one day course is for technicians whose certification has expired. Seven former technicians attended this class and are now certified once again.

Welcome back! Chris Macom—**Canby Police Department**, Tracy Biery—**Confederated Tribes of Grande Ronde**, Ryan Humphrey—**Lincoln City Police Department**, Michael Mohny & Dan Dennis—**Segals for Children**, Elana Bandel—**The Dalles Traffic and Safety Commission** and Ron Pearson—**Western Lane Ambulance**.

Thanks to the instructor team who pulled it all together! Bret Barnum & Bill Balzer—**Portland Police Bureau** and Sandy Holt—**ACTS Oregon**.

## Child Pedestrians: Factors Associated With Ability to Cross Roads Safely and Development of a Training Package

This November 2008 research report by Monash University in Sweden reveals interesting results and shows progress toward developing better skill-based pedestrian safety programs for young children. Traditionally, education programs for young children have focused more on knowledge and attitudes than the actual skills a child needs to be safe while operating in traffic. As a result, most traditional pedestrian safety programs have demonstrated limited knowledge and skill improvements.

Part of this research project involved developing and evaluating a training program for children age 6 to 10 which stressed how to select safe gaps in traffic to allow them to cross the road safely. Randomly selected children were asked to respond to simulated road crossing environments involving a range of gap times and traffic speeds, by responding whether or not it was safe to cross



the road. The children were also given a battery of tests to assess their functional skills, and their parents were interviewed to assess information such as the child's physical activity levels and exposure to traffic and traffic education. The

Executive Summary concludes:

The results suggest that children primarily use distance rather than the speed of approaching vehicles when making judgment about safe crossing gaps. The study further found that younger children are more likely to make incorrect gap assessments, but that it is important to let children walk independently as they mature and are able to make these assessments.

Age was a strong predictor of critically incorrect decisions, with six year olds almost 12 times more likely than ten year olds to make a critically incorrect decision. Children who walked independently more frequently were less likely to make incorrect crossing decisions compared with children who walk independently less frequently. This suggests that age-appropriate traffic exposure is beneficial for acquiring road skills.

The Executive Summary describes the detailed skills training course, which involved simulated

cars and the children crossing simulated roadways, accompanied by feedback on their performance and later, distractions.

The Executive summary concludes:

The current findings suggest that tailored and practical programs have a beneficial effect on children's road-crossing decisions.

Children made 56% fewer critically incorrect responses immediately after training, and 47% fewer when re-tested one month later, which is an excellent retention rate. The authors plan to continue researching this topic and developing a more refined training course for child pedestrians.

To read at least the Executive Summary (pages 11–15) or the full report: <http://www.monash.edu.au/muarc/reports/muarc283.pdf>.

## School Bus Training

School may be out for summer, but not for the school bus drivers! On July 30th, ACTS Oregon partnered with Oregon Child Development Coalition (OCDC) and offered the National Child Passenger Safety (CPS) School Bus Training. This one day training was held at OCDC where 23 CPS Technicians, CPS Instructors and members of Oregon Department of Education attended.



The curriculum is available to certified CPS technicians and instructors. For a copy, contact Sandy Holt at [sandyh@actsoregon.org](mailto:sandyh@actsoregon.org).

## Adolescent Sleep, School Start Times, and Teen Motor Vehicle Crashes.

**STUDY OBJECTIVES:** To assess the effects of delayed high-school start times on sleep and motor vehicle crashes.  
**METHODS:** The sleep habits and motor vehicle crash rates of adolescents from a single, large, county-wide, school district were assessed by questionnaire before and after a 1-hour delay in school start times.

**RESULTS:** Average hours of nightly sleep increased and catch-up sleep on weekends decreased. Average crash rates for teen drivers in the study county in the 2 years after the change in school start time dropped 16.5%, compared with the 2 years prior to the change, whereas teen crash rates for the rest of the state increased 7.8% over the same time period.

**CONCLUSIONS:** Later school start times may both increase the sleep of adolescents and decrease their risk of motor vehicle crashes.

Visit [www.safetylit.org/week/journalpage.php?jid=7118](http://www.safetylit.org/week/journalpage.php?jid=7118) for journal details and additional article content.





## Check Up Clinics and Fitting Stations

Please check [www.childsafetyseat.org](http://www.childsafetyseat.org) under Child Passenger

Safety/Calendar for current list, specific dates, locations and times.

Date	City	Location	Address	Time
09/25/09	North Bend	Pony Village Mall	1611 Virginia Avenue	10:00 A.M. to 2:00 P.M.
09/26/09	Beaverton	City Hall	4755 SW Griffith Drive	9:00 A.M. to 12:00 P.M.
09/26/09	Hillsboro	Tuality Healthcare	334 SE 8th Avenue	10:00 A.M. to 1:00 P.M.
09/26/09	Tigard	Babies R US	7805 SE Dartmouth	10:00 A.M. to 1:00 P.M.
09/30/09	Forest Grove	Fire & Rescue	1919 Ash Street	1:00 P.M. to 3:00 P.M.
10/01/09	Redmond	Fire Department	341 Dogwood Avenue	10:00 A.M. to 1:00 P.M.
10/03/09	Tualatin	Legacy Meridian Park Medical Center	19300 SW 65th Avenue	10:00 A.M. to 2:00 P.M.
10/03/09	Boring	Fire Department	28655 SE Hwy 212	11:00 A.M. to 2:00 P.M.
10/07/09	Madras	Jefferson County Fire Department	765 Adams Drive	10:00 A.M. to 1:00 P.M.
10/08/09	Ontario	Fire Department	444 NW 4th Street	4:00 P.M. to 6:00 P.M.
10/08/09	Vernonia	Fire Department	555 E Bridge Street	4:00 P.M. to 6:00 P.M.
10/10/09	La Grande	Goss Motors	1415 Adams Avenue	10:00 A.M. to 2:00 P.M.
10/15/09	Redmond	Fire Department	Call 541-504-5000 for Appointment	
10/17/09	Albany	Fire Department Station #12	120 SE 34th Street	8:00 A.M. to 10:00 A.M.

## Oregon Employers Conference

On September 29, 2009 Evergreen Safety Council will be hosting the Oregon Employers Traffic Safety Conference. The conference will be held at the NECA IBEW Electrical Training Center 16021 NE Airport Way, Portland, OR 97230. Hours of the conference are 8:00 A.M. to 4:00 P.M. Vendors and continental breakfast begin at 7:30 A.M. There is no cost to attend this conference, simply register at: [www.esc.org/093008\\_OETS\\_conf.php](http://www.esc.org/093008_OETS_conf.php).

# 2009 Oregon Transportation SAFETY CONFERENCE

**Facing the Challenge of Change**

The program for the 2009 Oregon Transportation Safety Conference is finalized and posted at [www.actsoregon.org/conference.html](http://www.actsoregon.org/conference.html). Speakers are traveling from Alabama, Florida, Virginia, and all over Oregon! Legislators are prepared for a discussion of the 2009 legislative session and its impact on transportation issues. Oregon Transportation Safety and Looking Beyond the Traffic Ticket Award winners have been notified. Scholarships have been awarded. The Tuesday evening dinner reception is shaping up to be a fun filled evening! Hotel rooms are going quickly. Register today at [www.actsoregon.org/conferenceRegistration.html](http://www.actsoregon.org/conferenceRegistration.html).

# 2009 Oregon Transportation SAFETY CONFERENCE

**Facing the Challenge of Change**

**Join ODOT—Transportation Safety Division and ACTS Oregon,  
October 27 to 29  
at the Best Western Hood River Inn**