Front Cover

Back Cover

aaa

INTERACTIVE DRIVING SYSTEMS

ADD

FACING

Front Cover

DORON

ADD

REAR

new ad

Florida Safety

ADTSEA Officers and Board of Directors

Executive Committee

James Gibb, Missouri	President
Carol Hardin, Virginia	President-Elect
Elizabeth Weaver Shepard, Idaho	Past President
Robin Bordner, Michigan	Senior Director
Gerald Apple, Washington	Secretary Treasurer
Jan Meeker-Sevilla, Hawaii	NSSP Liaison
William Van Tassel, Florida	Corporate Representative

Board of Directors

NORTHEAST		SOUTH CENTRAL	
Barry Thayer, Connecticut	2008	Faye Smith, Missouri	2008
Lindsay Townsend, Vermont	2007	Gerald Dickinson, Jr., Texas	2007
SOUTHEAST		NORTHWEST	
Jo Ellen Suter, Virginia	2008	David Huff, Montana	2008
Chuck Lehning, North Carolina	2007	Debbie Cottonware, Montana	2007
NORTH CENTRAL		SOUTHWEST	
Stan Henderson, Indiana	2008	Larry Woodruff, California	2008
Robin Bordner, Michigan	2007	Lyle Kajihara, Hawaii	2007

ADTSEA Corporate Members

ADTSEA numbers its' Corporate Members among its' most valuable assets. Our relationship is one in which the Association and the individual Corporate Members seek to provide counsel, assistance, and service to one another whenever possible. Additionally, the Corporate Members make financial contributions without which the Association would be far less effective.

AAA Foundation for Traffic Safety
American Automobile Association
Cingular Wireless
Cognifit
Continental Teves
Country Insurance & Finacial Services
Discovery Enterprises
Doron Precision Systems, Inc.
Drunk Busters
Event Solutions International
General Motors
General Learning Communications
Glencoe (MacMillan/McGraw-Hill)
Global Learning Solutions
Interactive Enterprises
Innovations for Improvement of Instruction
Kemper Auto /Home Insurance
Moorshire Group
National Association of State Motorcycle Safety Administrators
National Road Safety Foundation
National Institue for Driver Behavior
Ohio Safe-T-Brake
OPW Fueling
Prentice-Hall
Propulsion International, Inc.
Raydon Corporation
Road Wise
Roush Industries
Simulator Systems International
State Farm Insurance Companies
Teen Arrive Alive
Toyota Motor Sales, U.S.A., Inc.
United Safety Council

unfortunate that not all individuals could be elected, but it speaks well for the Association when a variety of qualified candidates are willing to be nominated for office and serve when they are elected. Thanks to all the candidates and all of you who voted.

Our annual conference is nearing and Beth Weaver has completed the program planning. You can view this program on the ADTSEA webpage, as well as the NSSP program completed by Jan Meeker and Dana Bowser.

If you have not used the webpage recently, you should. There is a new forum section that allows you to share ideas. You can respond to questions that have already been asked, or you can ask questions of your own. While you are at the webpage, look at the information on the recently released ADTSEA Driver Education Curriculum.

Your contributions as an ADTSEA member are important. I urge you to continue supporting quality driver education.

Thank you.

It remains to be seen if governments and the automotive industry can adopt those policies, procedures and training requirements that have demonstrated improvements and results in usage behavior; in Finland, in the Federal Aeronautics Administration (FAA) or by the American Society of Anesthesiology, as deterrents to mishap, injury and fatality.

ADTSEA State Affiliates

Arizona
California
Colorado
Connecticut
Florida
Georgia
Hawaii
Illinois
Iowa
Kansas
Kentucky
Maine
Maryland
Michigan
Minnesota
Missouri
Montana
Nebraska
New Hampshire
North Carolina
North Dakota
Oregon
Pennsylvania
South Carolina
South Carolina
Tennessee
Texas
Utah
Vermont
Virginia
Washington
West Virginia
Wisconsin

ADTSEA Driver Education and In-Car Curriculum Version 1.0 Available NOW

The ADTSEA Driver Education and In-Car Curriculum, Version 1.0 was developed to provide current information and techniques on teaching novice drivers the basics of motor vehicle operation. The "Driver Education Classroom and In-Car Curriculum" guide is divided into 10 units that are provided to assist in the coordination of 45 hours of classroom instruction, a Skills Log, and an In-Car Guide. Eight hours of in-car instruction are grouped into the In-Car guide and alternate forms of the final exam are provided along with unit exams.

The curriculum visuals are in a DVD format to provide efficient, cost effective and ease of use. Three DVDs are provided in the curriculum package along with printed lesson plans, worksheets and fact sheets.

Specific DVD content is listed below:

Disc 1 - ADTSEA DVD Curriculum

- Unit 1 - Introduction to Novice Driver Responsibilities and the Licensing System
- Unit 2 - Introducing Operator and Vehicle Control Tasks in a Controlled Environment
- Unit 3 - Space Management System
- Unit 4 - Basic Maneuvering Tasks
- Unit 5 - Risk Reducing Strategies for High-Speed Multi-lane Expressways
- Unit 6 - Personal Factors Influencing Operator Performance
- Unit 7 - Environmental Conditions that Affect Safe Vehicle Operation
- Unit 8 - Vehicle Functions and Malfunctions, and Collision Reporting
- Unit 9 - Sharing the Road with Commercial Motor Vehicles
- Unit 10 - Reducing the Influence of Distractions on the Driving Task

DVD Disc 2 - AAA Foundation for Traffic Safety Videos

- "Using Your Eyes Effectively"
- "Managing Space and Time"
- "Freeway Driving"
- "Sharing the Road"

DVD Disc 3 - American Automobile Association

"Teaching Your Teens to Drive"

- Lesson 1 - Developing Basic Vehicle Control
- Lesson 2 - Moving, Turning, Stopping and Securing the Vehicle
- Lesson 3 - Maneuvering in Light Traffic
- Lesson 4 - Maneuvering in Moderate Traffic
- Lesson 5 - Backing and Turning Maneuvers
- Lesson 6 - Assessing Highway Conditions
- Lesson 7 - Identifying Traffic Control Devices
- Lesson 8 - Searching for Clues to Motor Vehicle Conflicts
- Lesson 9 - Searching for Clues from Non-Motorized Road Users
- Lesson 10 - Positioning and Timing at Intersections
- Lesson 11 - Positioning and Timing When Following and Meeting Other Vehicles
- Lesson 12 - Critical Time/Space Decisions
- Lesson 13 - Adverse Driving Conditions
- Appendix - Parent-Teen Contract

Costs:

DVD Set with Printed Content (ADTSEA Members price):	**$225.00**
DVD Set with Printed Content (Non-ADTSEA Members price):	**$275.00**
Shipping & Handling:	**$25.00**

For additional information, you can contact the ADTSEA office toll free at 800-896-7703. You can also order at www.adtsea.org.

Re-Thinking Traffic Safety: The Global Situation, Under-Utilized Resources, Strategies for Improvement

Bob Green, Instructor/Trainer survivethedrive

"We know the laws of Nature, but we also know, to our cost, that those laws never overlook a mistake, or make the smallest allowance for ignorance.", Paraphrased from Thomas Huxley (1825-1895)

"(The laws of Nature are) terribly unforgiving of any carelessness, incapacity or neglect." British Aviator Captain A.G.Lamplugh, (1930's)

"People need new tools to work with rather than tools that 'work' for them" Ivan Illich, 1926-2002, (Energy and Equity)

Abstract –

Automobile crashes have recently become officially recognized by the United Nations and the World Health Organization as a global epidemic, projected to escalate, in violent severity, beyond the medical health threats of HIV/Aids, malaria, tuberculosis, et al. The most dramatic increases are taking place in countries lacking infrastructure and controls on "more-newly-acquired", unrestrained "independent discretionary mobility". Still, even those countries with more economic resources continue to experience high levels of extreme, needless automotive violence. Medical effectiveness can only be applied after the crash.

Volumes of recent scholarly writings describe the ineffectiveness of education and training as a means to deter, reduce or eliminate the threat of car crashes in our daily lives. An influential ideology refers to the need for technology and "sound science" to resolve the problem and citing the need for "experience" to be the training necessary for a lifetime of driving; that spontaneous learning will occur over time with minimal guidance, scrutiny and expense.

Given that logic, training requirements and evaluation for airline pilots, medical professionals, military personnel, Olympic athletes, musicians and the apprenticeship and licensing requirements for electricians and plumbers should also be dropped. Each of you reading and comprehending this text will have completed twelve and more years of education and training in the expectation of becoming a citizen contributing to society; an average, minimum requirement. What is to be considered adequate, good enough? Pursuing ideologies based on accepted or perpetuated practices has gotten our culture into difficulties before, "I was just following orders".

Rather, it follows, that the education, training, evaluation and monitoring of the "general motoring public" needs to be more effective, thorough and comprehensive; adjusted and upgraded to achieve traffic safety goals, however necessary. Present preparation for driving is focused on the goal of obtaining the driver's license. Any required testing/evaluation is often a cursory chore at the onset of nearly a lifetime of use and not indicative of the seriousness of the task. Finland, for example, has achieved major reductions their violations and crash rate based a comprehensive "mind set" that incorporates all dimensions of the society in its automotive consciousness.

Science and technology have contributed great digitized advancements directed toward driver assistance in continuous and immediate situational analysis, aimed at preventing and controlling the not-so-rare "all of a sudden", "emerge-urgencies", the sensors and controls operate over the physical conditions that are recognized to contribute to crashes; tire/surface slip rates, proximity to hazards, perceptive aids and those protective mechanisms that protect persons within the car in the event of catastrophic, Newtonian collision. The achievements are significant.

Still, problems occur and are unresolved. Even with historic, conventional equipment, behavioral usage patterns demonstrate deficiencies in knowledge, ability and operation. More sophisticated equipment, mechanically working more effectively, will not resolve those deficiencies and may complicate or create unwarranted dependencies on the equipment's abilities to "save" the problem. One sample evaluation showed that most folks, given cars equipped with ABS did not access or utilize the system in a simulated emergency, non-threatening environment, after acknowledging they had learned how to use it in a preceding "tech talk". Yet, these folks stated they would purchase the car with the expectation that they were safer in a car with ABS. There would be only one "best attempt" in an emergency.

The dream of a "self-intelligent" vehicle or transportation system is not all that remote. It would certainly be difficult to implement, expensive and would necessarily limit self-directed, mobile independence and discretion. Still, untrained dependence on such systems would be just that, reliance on what some person(s) devised to resolve individual, personal problems. In the event the system was ineffective, disabled, misused or unused the drivers would still have an unresolved problem, "all-of-a-sudden".

(continued on page 16)

(from page 12)

safety policies, procedures and communications. Lastly, administrators should ensure that all fleet vehicles are maintained to the utmost level.

Currently in their infancy, car sharing programs hold substantial promise for positive impact on the environment, congestion and transportation costs. However, they may also involve the potential for additional risks to their customers and other roadway users. It is recommended that research be conducted to study car sharing programs more thoroughly to assess the programs' effects on drivers and on the transportation system as a whole.

In this article, the authors chose to limit the focus on car sharing programs' potential benefits and safety issues. It is quite clear that many related vehicle ownership issues are not addressed in this discussion and warrant a thorough hearing in another article.

References

CarSharing. (2006). Available http://www.carsharing.net.

Flexcar. (2006). Available http://www.flexcar.com.

Millard-Ball, A., Murray, G., ter Schure, J., Fox, C. & Burkhardt, J. (2005). Car-sharing: Where and how it succeeds. Transit Cooperative Research Program, Report 108.

Sturges, D. (2006). Car on demand. *Automobile Magazine*, 21(1), 86-88.

Washington Examiner (2006). Available http://www.examiner.com. March 1.

Zipcar. (2006). Available http://www.zipcar.com.

Recent Articles of Interest

The relationship between performance on the standardised field sobriety tests, driving performance and the level of Delta9-tetrahydrocannabinol (THC) in blood.
- Papafotiou K, Carter JD, Stough C. Forensic Sci Int 2005; 155(2-3): 172-8.

Cellular telephones and driving performance: the effects of attentional demands on motor vehicle crash risk. Hunton J, Rose JM. Risk Anal 2005; 25(4): 855-66.

Mobile phone use-effects of handheld and handsfree phones on driving performance.
- Törnros JE, Bolling AK. Accid Anal Prev 2005; 37(5): 902-9.

Parent-teen disagreement of parent-imposed restrictions on teen driving after one month of licensure: is discordance related to risky teen driving?
Beck KH, Hartos JL, Simons-Morton BG. Prev Sci 2005; 6(4): 259-67.

The effects of the checkpoints program on parent-imposed driving limits and crash outcomes among Connecticut novice teen drivers at 6-months post-licensure.
- Simons-Morton BG, Hartos JL, Leaf WA, Preusser DF. J Saf Res 2006; ePub: ePub.

The observed effects of teenage passengers on the risky driving behavior of teenage drivers.
- Simons-Morton B, Lerner N, Singer J. Accid Anal Prev 2005; 37(6): 973-82.

The impact of driver education on self-reported collisions among young drivers with a graduated license. Zhao J, Mann RE, Chipman M, Adlaf E, Stoduto G, Smart RG. Accid Anal Prev 2006; 38(1): 35-42.

A profile of adolescents who attend driver education for the insurance discount: are insurers rewarding bad risks? Hirsch P, Maag U. Insur Risk Manage 2006; 73(4).

Vehicles driven by teenagers in their first year of licensure.
- Williams AF, Leaf WA, Simons-Morton BG, Hartos JL. Traffic Injury Prev 2006; 7(1): 23-30.

Can we prevent road rage? Asbridge M, Smart RG, Mann RE. Trauma Violence Abuse 2006; 7(2): 109-21.

The Effectiveness of Electronic Stability Control (ESC) in Reducing Real Life Crashes and Injuries.
Lie A, Tingvall C, Krafft M, Kullgren A. Traffic Injury Prev 2006; 7(1): 38-43.

The strength of graduated drivers license programs and fatalities among teen drivers and passengers.
Morrisey MA, Grabowski DC, Dee TS, Campbell C. Accid Anal Prev 2006; 38(1): 135-41.

(from page 7)

2001 (see National Telecommunications and Information Administration, 2002, for report of access by state). However, Internet access increases every year and is readily available for a significant portion of the population, especially families with teenagers (Atkinson & Gold, 2002). The results of this study indicated that 87% of these families with teenagers in driver education reported having Internet and email access at home. Such a high rate would indicate widespread access to internet or email driver education material. This finding should be substantiated in further research.

Montana's graduated driver licensing (GDL) program will be initiated in July 2006, and that, in and of itself, may help increase parent involvement in teen driving, because research shows that parents do, for the most part, provide the required amount of practice driving for their teenagers during the learner's phase (Beck, Shattuck, Raleigh, & Hartos, 2003) and that parents in states with GDL may place greater restrictions on teen independent driving than do parents in states without GDL (Hartos, Simons-Morton, Beck, & Leaf, 2005). However, because Montana is mostly rural, the integration of parent information about management of teen driving into driver education, before teenagers become licensed, may make the transition to, and through, teen driver training and GDL requirements easier for families. Although the findings of this study indicated that parents may not be taking the initiative to be active in their teenagers' driver education classes, they were more than willing to receive related information and would like to be (or at least think that they should be) involved in their teenagers' driver education classes.

References

Atkinson, N. L., & Gold, R. S. (2002). The promise and challenge of e-health interventions. American Journal of Health Behavior, 26(6), 494-503.

Beck, K. H., Hartos, J. L., & Simons-Morton, B. G. (2002). Teen driving risk: The promise of parental influence and public policy. Health Education and Behavior, 29(1), 71-82.

Beck, K. H., Shattuck, T., Raleigh, R., & Hartos, J. L. (2003). Does graduated licensing empower parents to place greater restrictions on their newly licensed teens' driving? Health Education and Behavior, 30(6), 695-708.

Brownson, R. C., & Kreuter, M. W. (1997). Future trends affecting public health: Challenges and opportunities. Journal of Public Health Policy, 3(2), 49-60.

Hartos, J. L., Simons-Morton, B G., Beck, K. H., & Leaf, W. A. (2005). Parent-imposed limits on high-risk adolescent driving: Are they stricter with graduated driver licensing? Accident Analysis & Prevention, 37(3), 557-562.

Insurance Institute for Highway Safety. (2005). U. S. licensing systems for young drivers. Available at http://www.hwysafety.org/safety_facts/state_laws/us_licensing_systems.pdf. Accessed August 10, 2005.

Kreuter, M., Farrell, D., Olevitch, L., & Brennan, L. (1999). Tailoring health messages:
customizing communication with computer technology. Mahwah, NJ: Lawrence Erlbaum Publisher.

Kreuter, M. W., Strecher, V. J., & Glassman, B. (1999). One size does not fit all: The case for tailoring print materials. Annals of Behavioral Medicine, 21(4), 276-283.

Mayhew, D. R. (2003). The learner's permit. Journal of Safety Research, 34, 35-43

Montana Department of Transportation (2004). Traffic safety problem identification: FY 2005. Available at http://www.mdt.state.mt.us/trafsafety/docs/probid.pdf. Accessed January 10, 2005.

National Center for Injury Prevention and Control. (2005). WISQARS Leading Causes of Death Reports, 1999 – 2002. Available at http://webapp.cdc.gov/sasweb/ncipc/leadcausl0.html. Accessed August 10, 2005.

National Telecommunications and Information Administration. (2002). A nation online: Percent of households with internet access by state, 2001. Available at http:I/vvww.ntia.doc.govIntiahome/dn/hhs/TableHI.htm. Accessed January 25, 2004.

Simons-Morton & Hartos, 2003a

Simons-Morton, B. G., & Hartos, J. L. (2003). Improving the effectiveness of countermeasures to prevent motor vehicle crashes among young drivers. American Journal of Health Education, 34(5), 357-361.

Simons-Morton, B. G., Hartos, J. L., & Beck, K. H. (2004). Increased parent limits on teen driving: Positive effects from a brief intervention administered at the Motor Vehicle Administration. Prevention Science, 5(2), 101-111.

Simons-Morton, B. G., Hartos, J. L., Leaf, W. A., & Preusser, D. F. (in press). The persistence of effects of the Checkpoints Program on parental restrictions on teen driving privileges. American Journal of Public Health.

Williams A. F., & Ferguson, S. A. (2002). Rationale for graduated licensing and the risks it should address. Injury Prevention, 8(Supplement II), ii9-iil4.

(from page 11)

experts in the field of driver education as they strive to deliver the most effective programming to their students with the continuing goal of creating new generations of safe drivers.

Bibliography

Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. Annual Review of Psychology, 52, 1-26.

Paus, T., and Giedd, J. (1999) Structural maturation of neural pathways in children and adolescents: in vivo study. Science 283.

Sowell, E.R., Thompson, P.M., Tessner, K.D., and Toga, A.W. (2001) Mapping continued brain growth and gray matter density reduction in dorsal frontal cortex: inverse relationships during post-adolescent brain maturation. Journal of Neuroscience 22.

Sowell, E.R., Thompson, P.M., Colin, J.H., Jernigan, T. I., and Toga, A.W. (1999) In vivo evidence for post-adolescent brain maturation in frontal and striatal regions. Nature Neuroscience 10.

(from page 9)

broaden the discussion among the current safety policies are communicated and followed.

Second, they should also remain vigilant for opportunities to improve driver safety through additional

(more on page 13)

(from page 10)

many of their customers no longer have personal vehicles that are just waiting to be driven, car sharing users tend to make fewer trips, resulting in fewer overall miles driven per year.

D. Reduced fuel consumption. The vehicles offered by these services tend to be very fuel efficient. For example, the EPA city/highway mileage rating for the Mini Cooper and Scion xB are 30/34 and 28/36, respectively. Assuming car sharing programs continue to offer high efficiency vehicles, this could serve to reduce the average fuel consumed per mile driven, regardless of driver, positively affecting the nation's need for oil.

E. Fewer vehicle emissions. More efficient vehicles would produce fewer exhaust gases, resulting in less total emission of exhaust gases. This could have substantial positive impact on the environment.

F. Fewer motor vehicle crashes. If there are fewer vehicles, there would be fewer opportunities for vehicles to collide with one another.

G. Fewer injuries and deaths resulting from motor vehicle crashes. Likewise, fewer motor vehicle crashes would result in fewer injuries and deaths from such collisions.

Potential Safety Issues

In addition to the risks normally associated with driving a motor vehicle, customers of car sharing programs may face additional safety issues, including:

A. Ergonomic issues. Each time a customer enters a vehicle, he or she will have to adjust controls in order to achieve the proper fit between driver and machine. Seat position, mirrors and steering wheel angle will all have to be adjusted for the driver to have optimal control of the vehicle. If a driver fails to properly adjust the vehicle's controls, he or she could face additional risk, especially if faced with the need to execute emergency evasive maneuvers.

B. Vehicle features. Despite such programs' attempts to offer a relatively homogenous fleet of vehicles, differences in vehicle features will always exist. For example, one vehicle may feature anti-lock brakes, while another does not. Other systems and features that may vary throughout a given fleet could include traction control, anti-skid control, brake assist, automatically adjusting suspension, and variable ratio steering. Such variability could result in a customer believing a vehicle to be equipped with a specific system, when in fact it is not, or getting used to particular system then driving a vehicle with a substantially different system. In an emergency situation, this could raise the driver's risk.

C. Vehicle structure issues. Even among relatively small vehicles, overall vehicle dimensions can vary substantially. While this issue may realistically only be of concern during low speed and parking maneuvers, variability in the size of vehicles in a fleet could raise the risk of collisions due to the driver being unclear about the vehicle's outer physical boundaries.

D. Driver visibility. Linked to the vehicle structure is the issue of roof-supporting structures, otherwise known as "pillars." On most vehicles, there are pillars supporting the solid roof structure. While any pillar can block a driver's view at least to some degree, causing "blind spots," the rearmost pillars tend to be the largest, thus blocking the most vision. Drivers of multiple types of vehicles may fail to adjust to a specific vehicle's visual limitations and blind spots. This could increase the risk of collision when drivers attempt to change lanes, back out of parking spots, and perform other moves that require clear vision and space to the rear of the vehicle.

E. Vehicle response. Different vehicles respond differently. For example, a sporty vehicle's response to steering input may occur much more rapidly than that of a larger, heavier passenger van. Likewise, braking application speed and stopping distances can also vary significantly among vehicles. Drivers who fail to adjust to differences among a fleet's vehicles could be at higher risk of failing to successfully execute an aggressive or emergency maneuver, resulting in higher risk of collision.

F. Damage report issues. If a shared vehicle sustains damage, it is possible that the driver renting the vehicle at the time might fail to report the damage to the car sharing program administration in a timely manner. Such unreported damage, or damage that was reported but not addressed, could put subsequent drivers at higher risk of collision and personal harm.

Although car sharing programs may offer substantial benefits, such programs' administrators must ensure that customer safety remains a top concern. Administrators should consider several recommendations to promote the safety of their customers.

First, the administrators should continue to monitor and ensure that

(go to page 12)

Car Sharing Programs: Operational and Safety Aspects

W.E. Van Tassel, Ph.D.[1] and E.E. Floyd-Bann, Ed.D.
[1]AAA National Office

Introduction

Although drivers have been able to rent vehicles by the day for years, in some urban areas cars can now be rented by the hour. Hourly rent car, or "car sharing," programs provide customers the opportunity to rent cars only during the period of the day when actually needed. This article will briefly describe car sharing programs and examine safety aspects related to such programs.

Since 2000, an innovative personal transportation system has been growing: car sharing programs. These programs provide city-dwelling drivers with short-term, as-needed transportation solutions, conveniently and at relatively low cost. Instead of renting a vehicle for a full day, drivers rent vehicles for only those hours during the day when they need personal transportation.

How Car Sharing Works

After paying a nominal initial fee (generally around $25 USD) and receiving their membership card, car sharing program customers can reserve a vehicle using an online reservation system. At the appointed time, the customer walks to his/her reserved vehicle, which is parked at a convenient location in the neighborhood (Millard-Ball, et al., 2005; CarSharing, 2006).

The membership card unlocks the vehicle, and the customer gets in and drives away. Upon completing his/her transportation needs, the customer returns the vehicle to the same location, often a parking spot reserved by the city for car sharing program vehicles (Washington Examiner, 2006). The customer locks the vehicle and walks away, leaving the car ready for the next renter. The customer pays only by the hour, rather than for a full day's rental. Fuel, maintenance, parking and insurance costs are generally included in the vehicle rental fee, adding to the convenience to customers.

In fact, many car sharing program customers do not own a personal vehicle or have chosen to sell their personal vehicle (Zipcar, 2006). Instead, they use such programs to supplement their usual transportation solution, which on most days involves public transportation systems. Thus, car sharing programs often act as a driver's secondary and supplemental, rather than primary, mode of transportation. Customers may require personal transportation only occasionally, solving needs such as having to travel outside the reach of public transportation, carry cargo, or transport other persons such as family or friends.

Currently, these programs are available in areas with concentrated urban populations, including San Francisco, Seattle, Chicago, New York City and Washington D.C. (Sturges, 2006).

Vehicles Available

These programs often feature economical, attractive and efficient vehicles. For example, one company offers vehicles such as the Mini Cooper and Scion xB (Zipcar, 2006). These vehicles are relatively small and easy to maneuver, have substantial cargo capacity and are very fuel efficient. For many customers, they feature the added benefit of being fun to drive.

Gas-electric hybrid vehicles, such as the Toyota Prius, are also featured by some programs. Larger vehicles may also be available for customers needing additional capacity, such as BMW sedans, pickups and minivans (Flexcar, 2006).

Potential Benefits

Like any transportation system, car sharing programs feature both potential benefits and potential negatives. Potential benefits, both short-term and long-term, could include:

A. Lower personal transportation costs. Instead of having to own, insure and maintain a personal vehicle, hourly rent car program customers pay only for the time during which they actually use the vehicle. With the average cost of owning and operating a vehicle in the U.S. exceeding thousands of dollars per year, it can make sense for some drivers to reduce their overall personal transportation costs through short-term vehicle renting. In fact, many car sharing program customers have sold their personal vehicles as a result of their satisfaction with access of these types of programs (Zipcar, 2006).

B. Reduced traffic congestion. As more drivers come to use fewer vehicles as a whole, the net result could be a reduction in the total number of vehicles on the road. Fewer total vehicles could result in reduced traffic congestion, decreased transit time, and diminished driver frustration and even fewer road rage incidents.

C. Decreased transit time. Fewer vehicles could also translate into shorter average per-driver transit times, resulting in less total time spent behind the wheel. Car sharing programs have also learned that, because

(go to page 11)

(from page 8)

adolescent more time unsupervised with friends and peer groups.

The second change will be increases in risk-taking and exploration. Not all risk-taking is negative. The idea of risk is simply that an element of uncertainty in the outcome exists. Some risks are very positive like participating in sports, the arts, debate, etc. and lead to an increased sense of self-confidence and esteem. The personal boundaries in adolescents get pushed hard and parents must allow a certain amount of failure and defeat as well. It is a balancing act that needs to be allowed to occur.

Thirdly, will also be increased conflicts with authority, including parents. This fits with the idea of mastery and of boundaries. The adolescent brain is hard-wired for experiences. Telling an adolescent is not the same as showing an adolescent and even more importantly, an adolescent will need to do it for him or herself as well. Plus, emotional lability or the up-and-down quality of emotional responses is prevalent in adolescence due to hormonal fluxuations.

Next, there will be dramatic changes in sleep patterns, including going to sleep and waking up much later. This is relatively easy to understand. Growth is acute in adolescence and hormonal and physical changes take an enormous amount of energy. Most adolescents are not getting enough sleep to begin with and estimates are that teenagers probably need ten to twelve hours of sleep a night during the height of their growth and maturation spurts. The switch of diurnality is also related to serotonin and dopamine levels in the brain, which are fluxuating regularly at this stage of development. Parents should really try to get their teenager to sleep and don't worry if they are in bed on Saturday afternoon until 2 p.m.

Finally, this is the age of puberty. The ramifications of puberty are well-publicized and it is enough to remember that the adolescent brain is wired for sensations. So, wherever the brain goes with adolescents, the body is going to follow. It should be understood by parents and teachers alike that while there will be dramatic changes in physical appearance, even more dramatic changes are occurring in feelings and beliefs and the ways in which adolescents view themselves as sexually maturing beings.

To review, adolescent behavior is an outcome of adolescent brain development. Changes in brain structure and function lead to changes in behavior and emotional response. Reasoning abilities as well as social and cognitive interactions will undergo vast shifts and unstable periods during adolescence. The adolescent is in the process of becoming something else entirely and it is often a bumpy road.

How to Use the Science in Driver Education Settings: Suggestions

The information above is fascinating and does offer an extremely useful and reassuring profile of adolescents because they will, after all, grow out of it. But what does it mean to driver educators? Here are a few respectful suggestions, with the understanding that there are many types of settings for driver education and that resources vary greatly among those settings.

First, review your curriculum. Do you have more classroom time that actual time in the car? Do you have outdated or outmoded visual materials? Do you explain terminology and techniques in teen-speak or adult talk? (boredom checklist, please) What time of day or night are your classes? (remember the sleep patterns)

Second, review your classroom requirements. Do you have one session and then no reviews before licensing examinations? What about a follow-up refresher course in six months, one year? Do you have training for parents, teachers, or other adults in you program to help facilitate their understanding of the characteristics of the students they will be teaching? Have you updated your rubrics to include the latest technological additions to the vehicles adolescents are driving like GPS locators, cell phones, etc. as well as latest safety innovations under the hood?

Third, consult local experts. Do you have access to counselors, physicians, professors, of others who deal with adolescent populations on a regular basis? Do you regularly review with experts to discuss the latest developments and techniques concerning how adolescents think and learn? Do you regularly invite law enforcement and other officials into the classroom to facilitate the learning experience and help your students see these authority figures as allies?

Fourth, become creative. Do you take the opportunity to play the games on XBOX or Sony Playstation that involve driving? Have you ever done it in class? Have you ever taken your students to an arcade to play the simulated driving games? Research indicates that these games can be deceiving, but do we use them in learning settings to explain and demonstrate the differences in such games and real driving settings? Do you have opportunities to do night driving or bad weather driving in safe settings like parking lots or other controlled settings? What other creative things do you try in class in order to engage the students' attention and interest?

Fifth, share what you know with others. Do you regularly network or attend conferences or talk withr peesr to track expertise and experiences? How do you share what you have found effective aow do you learn about innovations in the field?

Summary

This paper is meant to be a starting point for driver educators who wish to utilize current scientific research in their curricula. It is by no means a complete review of all the latest information, nor does begin to exhaust all the ways that the classroom experience could be enhanced. Hopefully, it will help to

(finishing on page 12)

Brain Development and Risk-Taking in Adolescent Drivers

Erin Floyd-Bann, Ed.D. and William Van Tassel, Ph.D.[1]
[1]AAA National Office

Introduction

There has always been the common understanding that teenagers do not think like the rest of us! Parents, teachers, and psychologists all agree that the mind of the typical adolescent is a strange and complicated place, but with the use of modern and sophisticated technology, this long-held wisdom now has solid physical evidence to support it. Magnetic Resonance Imaging and Computed Axial Tomography (CAT Scans) have revealed the hitherto unknown reaches of the adolescent brain and brought to light the many true physical differences between the teen brain and the adult brain.

These differences in brain development and structure translate into very different ways of approaching problems, making decisions, and judging risk and reward. Even the way that one looks at the world is based upon the developmental stage of the brain. Emotional responses and reasoning ability vary within the age groups, but overall, the adolescent does, in fact, not think like the adult and if we are to create the proper programming with our driver education bodies to tap into the specific characteristics of learning that are present in adolescents, we must understand these differences and how they translate into behavior.

Adolescent Brain Development: The concept of "plasticity"

During childhood, there is an overproduction of neuronal tissue that is not designated in a specific synaptic pathway. In simple terms, the brain is redundant to a larger degree, possessing many more unconnected neurons than an adult brain. As experiences are accumulated, connections are made and the neural pathways become fixed, as when language is acquired. You could say that this is when cells that are fired together, get wired together. Once the wiring process is completed, those neurons are fixed in synaptic pathways.

During adolescence, this "plasticity" is more pronounced than in childhood, even though overall neuronal cell production decreases. What begins to increase in its stead is something called myelination, where the neurons become coated with a type of electrically-conductive material. This is a process that could be likened to a turbo-charge effect in the brain, creating faster connections between synapses. These changes are especially apparent in MRIs and cell biopsies of the frontal lobes. This is an area of the brain that is involved in such higher functions as planning, decision-making, impulse control, language, memory, and others. During adolescence, the shift towards control of all these functions into the frontal lobes is called frontalization. So, even though total gray matter does decrease from childhood highs, performance of certain tasks becomes more focused and efficient. (Think about the reflexes of young athletes or soldiers and also about how linear their problem-solving abilities are at this time…turbo-charged yes, but also lacking in adult experiences which allow for cross-referencing a larger pool of synaptic pathway choices.) So, the adolescent brain is full of undesignated neuronal connections while at the same time, those connections that are designated are moving super fast and yet are very subject to linear patterns due to lack of experience (Sowell, et al, 1999, 2001; Paus, et al, 1999).

Further changes are occurring such as the decrease of gray matter in the parietal lobes, where sensory information is processed. On the other hand, gray matter increases in the occipital lobes, which are dedicated to processing visual information, until the mid-twenties for most adults. Gray matter in the temporal lobes, involved in memory and visual and auditory processing, usually does not reach maximum until around 16-17 years of age. Sub-cortical changes, especially in the corpus collosum, a bundle of axons which allow communication between hemispheres in the brain, increase in size, while neurotransmitters, the hormones which regulate all neural activity, are in flux throughout adolescence. These substances such as dopamine, GABA, and serotonin, facilitate where and how information is delivered in the brain and how that information is processed and interpreted (Sowell, et al, 2001).

To recapitulate, adolescent behavior is not arbitrary. They react and respond normally for their stage of development, which is a time of great change to the actual physical structure of their brains as well as how their brains process information and make connections. Adolescents behave and think differently from children or adults because of their developmental biology.

Adolescent Behavior

There are behavioral consequences to the developmental changes occurring within an adolescent's brain. The source for the following information is Bandura (2001).

The first and most dramatic change will be the increased amount of time an adolescent spends with his or her peers and the decreased amount of time spent with parents and family. This is a normal developmental change and should not be seen as dangerous or suspect, although developmental experts agree that close monitoring and clear rules and consequences be applied when allowing an

(continued on next page)

(from page 6)

reported "yes" to risks for teen driving compared to 77% or more for the others. About 59% of C-school parents reported "yes" to when and where teens should practice compared to 71% or more for the others. For when and where teens should drive when they get licensed, a greater percentage (82%) of AA-school parents reported "yes" than did parents from other school ranks (63-69%).

These included teenage driver crash rates; driving with teen passengers; distracted driving hazards including cell phone use, radio use, and driving while tired; seat belt use; graduated driving licensing and privileges; driving in hazardous weather conditions such as ice, snow, and hail; financial costs of teen driving including insurance; changing flat tires; driving a manual transmission; driving safety related to darting hazards like deer, dogs, and pedestrians; road rage and patient and courteous driving; and alternatives for driving experience. One parent also suggested having a video on safe driving for students to take home and watch with their parents or guardians.

Discussion

Overall, the results from this study indicate that parents are not currently very involved in their teenagers' driver education programs. Although over 75% of parents reported knowing at least half of what was going on related to instruction and training in driver education, only about 42% of parents reported getting regular updates from their teens about their progress, and no other item was done "a lot" by more than 25% of parents. In addition, only 5% of parents reported getting regular updates from instructors "a lot." Any differences in reports by school size indicated that parents in C-school were less involved than were parents from AA, A, or B schools. Therefore, rural areas may be differentially affected by distance in terms of how much involvement is possible or desired.

On a positive note, about 95% of parents reported that they would provide their teenagers with more practice driving than is provided by driver education. About half indicated that their teens would get 20 or more hours. These items did not differ by school size. Although positive, Montana recently passed its first graduated driver licensing (GDL) policy which requires parents to provide 50 extra hours of practice driving. Therefore, after July 2006, when GDL goes into effect, all parents should report that they will provide their teens with at least 50 hours of practice driving.

In addition, about 45% of parents indicated that their teenagers' driver education class "required" parent involvement. Unfortunately, parents were not asked what exactly was required of parents. The Montana Traffic Education Program, which regulates driver education in the state, strongly encourages driver education to include parents in the role of "reinforcer" to strengthen skills taught by driver education instructors, and outlines some strategies for instructors to use to reach parents including the use of parent conferences and phone calls, parent-teen-teacher checklists, and parent guidelines for practice driving with teenagers. In 2004, Montana Traffic Education Program reported that 92 of the 145 school-based driver education programs included parents in a "parent night" or "parent ride along" (Montana Office of Public Instruction, 2005). However, no state-mandated parent involvement exists at this time.

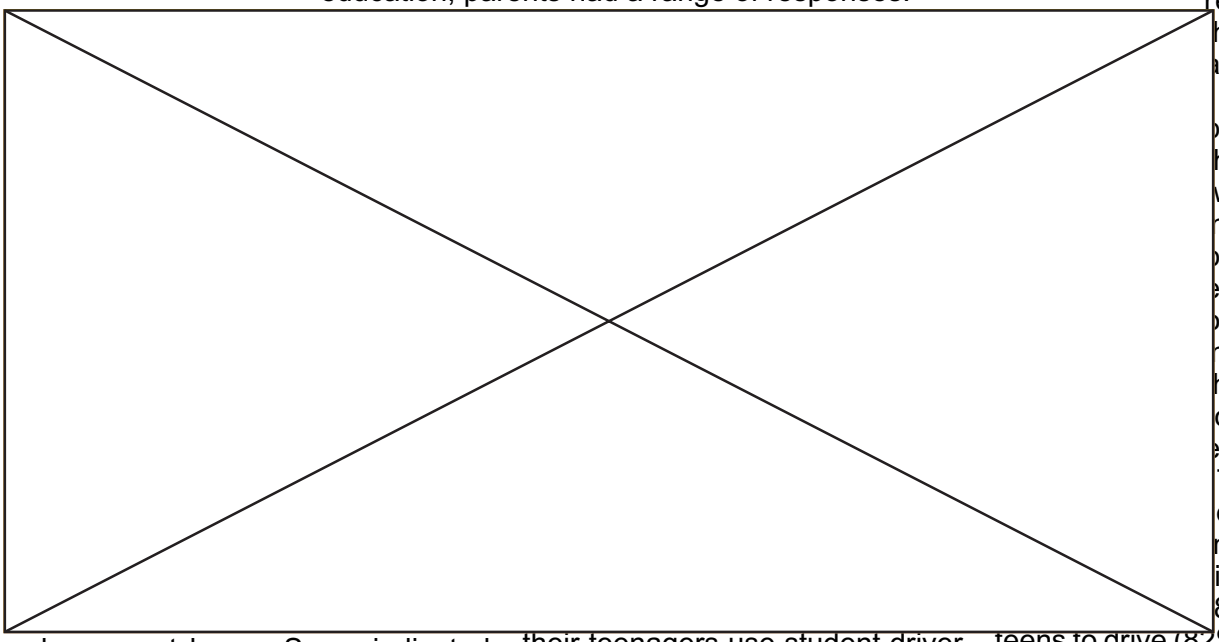
Although parents may not be very involved in driver education currently, it may just reflect passivity (versus an active decision). When asked if parents should be required to be involved the majority (76%) said that they should (52% reported "yes, definitely" and 24% reported "yes, if convenient"). Most parents would prefer being involved through written materials sent home (66%), access to information on the Internet (65%), discussions in person with the driver education instructor (59%), or access to the information by email (59%), and would least prefer attending classes (19%) or attending behind-the-wheel instruction (33%). Preferences did not differ by school size. In addition, over 70% of parents would want information on all nine topics that we asked them about and some additional topics that they volunteered. Some information topics differed by school size with a smaller percentage of C-school parents reporting "yes." Although parents may not be taking the initiative to find out information on their own, they are more than willing to receive the information. And, who better to provide the information than experts in the field: driver education instructors.

The idea of having a parent component to driver education delivered through email or internet is attractive. Web-based health information has several advantages because it has greater opportunity to be accessed on demand and to be tailored to the needs of the user. Unlike generic materials, tailored messaging creates individualized communication that has an increased potential of providing health messages that are relevant and ultimately more persuasive for target audiences (Brownson, & Kreuter, 1997; Kreuter, Farrell, Olevitch, & Brennan, 1999; Kreuter, Strecher, & Glassman, 1999). In addition, web-based programs are more amenable to being interactive and combining a variety of media to address purposes of interventions or learning styles of users, and to be updated and maintained to reflect the latest information. Finally, the Internet can help to reach populations who are hard to reach based on time, distance, or availability. This may be especially true for rural populations. Technological infrastructure and digital inclusion rates continue to grow such that the tools are available and target audiences are able to access them (Atkinson & Gold, 2002).

The latest national data on Internet access in Montana households indicated that 47.5% of households had Internet access in

(continued on page 12)

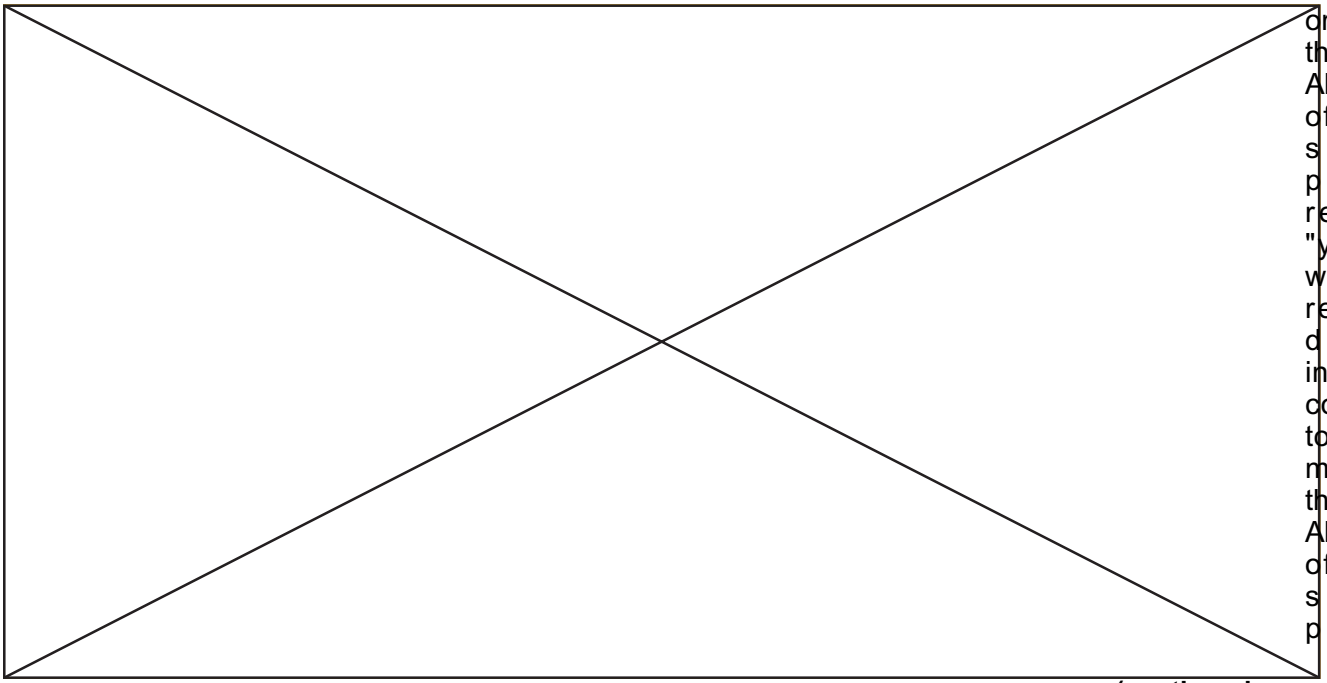
-Figure 2-
When asked about other ways parents should or could be involved in driver education, parents had a range of responses.



lessons at home. Some indicated that doing so would probably make parents better drivers. However, a few parents indicated that they did not believe parents should be required to be involved in driver education because they are responsible or because parents should not interfere with expert driver training. One parent suggested that parents should have their teenagers use student driver magnets for the front and back of the car they drive during the permit period, and that these could be paid for with a deposit and returned upon graduation. Other suggestions included using parents to speak to driver education classes about the issues of teen driving that everyone faces and that parents should be educated on the responsibilities that they carry for having a teen driver.

Figure 3 shows parent responses for the topics that they would want parent information on if it was part of driver education. Over 70% of parents would want information on each of the nine topics: ways to reinforce driver education material (76%), ways to reinforce driving instruction (83%), risks of teen driving (81%), ways to teach teens to drive (82%), ways to increase teen driver safety after license (91%), when and where teens should practice driving (75%), when and where teens should drive once licensed (73%), monitoring teen driving (81%), and teen drinking and driving (86%). There were differences in parent reports by school rank. About 56% of C-school parents reported "yes" for information about ways to reinforce driver education material compared to 74%

-Figure 3-
Parents also listed a range of other topics that they would want parent information on as related to teen driver education.



or over for the others. About 63% of C-school parents reported "yes" for ways to reinforce driving instruction compared to 77% or more for the others. About 59% of C-school parents

(continued on page 8)

(from page 4)
reported knowing "all of it," 32% more than half, 33% half, 14% less than half, and 6% "none of it." Parent knowledge about classroom curriculum did not differ by school rank, but parents from A-schools reporting knowing more about behind-the-wheel-instruction than did all others.

Most (95%) of parents reported that their teenagers would get more supervised practice driving during the permit period than the 6 hours provided by driver education; 50% reported teenagers would get 20 or more extra hours, and over 90% of parents reported that they would supervise it. Extra practice driving and supervisors did not differ by school rank. About 44% of parents reported that their teenager's driver education course "required" parent involvement and required parental involved did not differ by school rank.

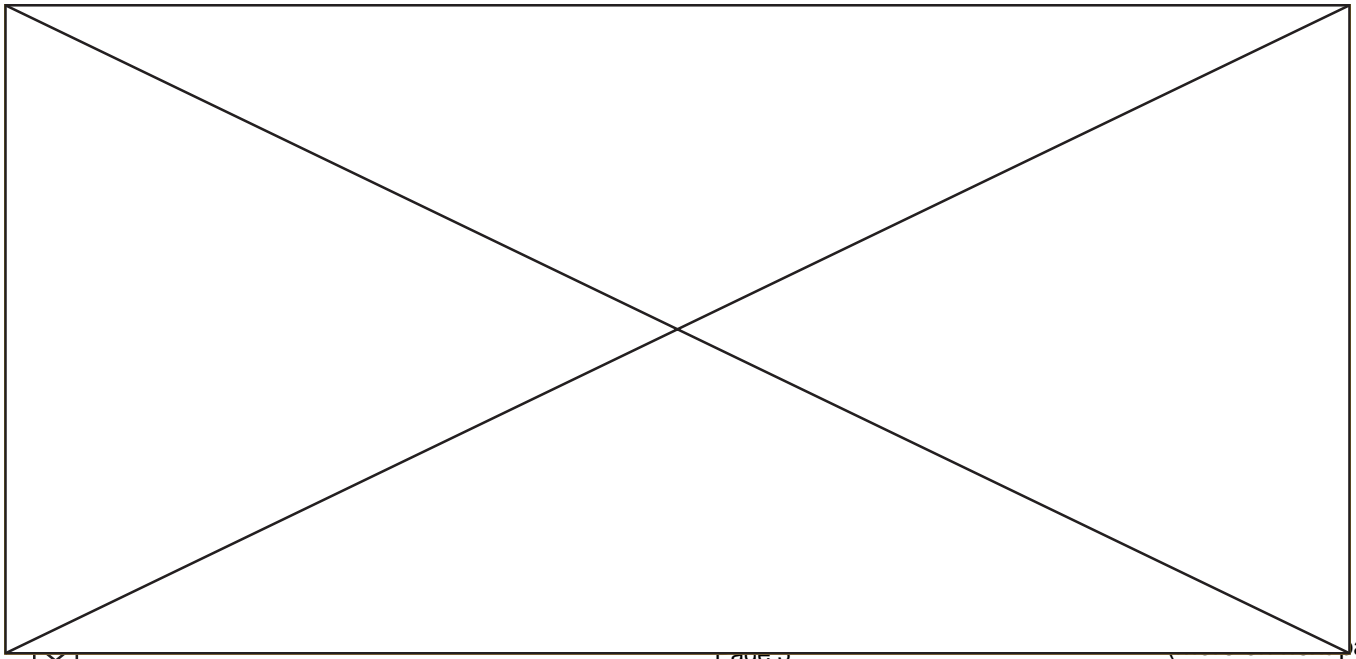
Figure 1 shows parent reports about how often they had done any of nine aspects of being involved in driver education. About 42% or parents reported that they got regular progress reports from their teenagers "a lot," and only 5-25% reported doing any of the other parent involvement pieces "a lot." Only 5% said that they got regular progress reports from instructors "a lot," and 54% reported that they did so "a little." Overall, for the other parent involvement items, most parents reported doing somewhere between "a lot" and "a little." Around 57-65% of parents reported some amount of finding ways to reinforce driver education materials, finding ways to reinforce driving instruction, learning about the risks of teen driving, learning about ways to teach teens to drive, learning about ways to increase teen driver safety after license, learning about when and where teenagers should practice driving, and learning about when and where teenagers should drive after obtaining a license.

Parent responses for how much they did some of the items differed by school size. For example, parent responses differed for getting regular updates from teenagers and for finding information to reinforce driver education material with a greater percentage of AA-school parents reporting doing them more often and C-school parents reporting them least often. A greater percentage of A- and B-school parents reported getting regular updates from instructors, and a greater percentage of A-school parents reported learning about when and where teenagers should drive once licensed than did the others.

When asked if parents should be involved in driver education, 52% responded "yes, definitely," 24% responded "yes, if convenient," 19% responded "maybe, not sure," and 4% reported "no they should not." Figure 2 shows parent responses for which ways they would want to be involved in driver education if required by the state. About 65% preferred having written materials sent home and having access to the information over the internet; about 60% preferred having discussions in person with the instructor and having access to the information through email; and about half preferred having discussion over the telephone. Far fewer preferred attending class (19%) or riding along during behind-the-wheel instruction (33%). Preferences did not differ by school rank. When asked about home internet and email access, 87% reporting having home internet and email access; 30% reported its quality as less than average, 35% average, and 36% better than average; and 82-86% of parents reported using email or internet at least once a week.

There were many responses that parents and teens should log hours of practice driving together. Many responded that parents should be sent information about what their teenagers are learning so that they can follow along, track their progress, and reinforce these

-Figure 1-
Parent Willingness to be Involved in Driver Education



(page)

(from page 3)

(AA, A, B, C) of parents of teenagers currently enrolled in driver education courses across Montana was targeted for this study (see Table 1). Of the 247 parents who completed written surveys, 37% were from AA schools, 27% were from A schools, 25% from B schools, and 10% from C schools; these percentages are representative of the number of families taking driver education by school size. Of the parents, 71% were mothers and 25% were fathers; 91% were white, 3% were Native American, and 2% were Hispanic; and 62% were 35-44 years old and 35% were 45 or older. Of their teenagers, 54% were female and 46% were male; and 80% were in 9th grade. Of the families, most had one (15%), two (69%), or three (12%) adults, and had one (27%), two (41%), or three (20%) children in the household. In additions, most families had two (30%), three (35%), or four (19%) vehicles and a family yearly income of $20,000-40,000 (29%), $40,001-60,000 (28%), or $60,001-80,000 (15%).

Table 1
Stratified sample: Parents of teenagers taking driver education by school size

Driver Education		School Rank[a]				Total
		AA	A	B	C	
Enrollment	n	854	552	391	181	1978
	%	43	28	20	9	100
Schools	n	5	17	21	12	56
Schools in study	n	2	2	4	3	11
Parents in study	n	92	67	63	25	247
	%	37	27	26	10	100

a School ranks: AA = 900+ students; A = 370-899 students; B = 130-369 students; C = 1-129 students

Procedures

From Fall 2004 driver education enrollment data by school size, 43% of students were in "AA" schools, 28% in "A" schools, 20% in "B" schools, and 9% in "C" schools. Therefore, we targeted similar percentages from 11 schools stratified by school size: AA, A, B, C (see Table 1). During classes, driver education instructors informed students about the study and sent home with students packets of information for their parents. Information included an introduction to the study, a parent consent form, a parent written survey, and an envelope in which to return study materials. Families were told that the state is considering adding a parent component to driver education and would be gathering information about ways to increase parental involvement in young driver safety. Participation was voluntary and parents had to provide written consent. Participating parents completed a written survey that took approximately 15 minutes, and received $10 for participating. Study information, including consent forms and written surveys, were returned to driver education instructors in sealed envelopes within 10 school days. Driver education instructors were given a $20 incentive for distributing study materials. Study procedures were approved by the Institutional Review Board of UNC Charlotte.

Measures

Current parent involvement in driver education was assessed by several questions. Parents reported (a) how much they knew about the classroom curriculum in their teenager's driver education course (5-point scale from "none" to "all of it"); (b) how much they knew about the behind-the-wheel instruction in their teenager's driver education course (5-point scale from "none" to "all of it"); (c) how many more practice hours (0, 1-5, 6-10, 11-20, or over 20) of driving their teenagers would receive beyond that in driver education and by whom (you, spouse, family member, friend, other); (d) if the driver education course required parent involvement ("yes" or "no"); and (e) how often they were involved in nine aspects (see Figure 1 for list) of driver education (5-point scale from "a little" to "a lot").

Parent willingness to be involved in driver education was assessed by several questions. Parents reported (a) whether parents should be required to be involved in driver education ("yes, definitely," "yes if convenient," "maybe, not sure," or "no they should not"); (b) if required, in which of seven ways (see Figure 2 for list) would they want to be involved ("yes," "maybe," or "no"); and (c) if parent information was part of driver education, which of nine topics (see Figure 3 for list) would they want information ("yes," "maybe," or "no"). In addition, parents reported if they had home internet and email access ("yes" or "no"), the quality and speed of their internet access ("poor," "fair," "average," "above average," or "first-rate"), and how many days per week they used the internet and email (0-7). Parents also responded to open-ended questions about other ways parents should or could be involved in driver education and other topics that parents would want information on as part of driver education.

Analysis

Frequencies were generated to determine parent responses to items related to current parent involvement in driver education and parent willingness to be involved in driver education. Chi-squares were used to determine any differences in parent responses by school rank.

Results/Current Parent Involvement in Driver Education

When parents were asked about how much they knew about the classroom curriculum of their teenagers' driver education courses, about 10% reported knowing "all of it", 28% more than half, 40% half, 14% less than half, and 8% "none of it." When asked about how much they knew about the behind-the-wheel-instruction, about 15%

(more on page 5)

To What Extent are Rural Parents Willing to be Involved in Driver Education?

Jessica Hartos, PhD, Assistant Professor, Dept of Health Behavior & Administration, UNC Charlotte
and David C. Huff, MS, Director, Traffic Education Programs, Office of Public Instruction

With few exceptions, the United States is the only country that allows persons ages 15 and 16 years to drive legally, and most eligible teenagers of that age do. Obtaining a driver's license is a "rite of passage" for U. S. teenagers; however, driving is particularly dangerous for them. Motor vehicle crashes are the leading cause of death and injury among teenagers aged 15 to 19 across the country (National Center for Injury Prevention and Control, 2005). High crash rates among young drivers are largely attributable to their young age, lack of driving experience, and risky driving behaviors (see review, Williams & Ferguson, 2002). Because driving skill and sound judgment are largely products of increasing age and driving experience, risk reduction is dependent upon driving experience; however, the more teens drive, the greater their exposure and, thus, their risk for crashes. Increasing the safety of teenage drivers is a national priority and promoting parental involvement in early teen driving experiences is an increasingly supported countermeasure to teen crashes.

Most efforts to include parental involvement in teen driving focus on how to teach teens to drive or awareness of teen drinking and driving (Beck, Hartos, & Simons-Morton, 2002; Simons-Morton & Hartos, 2003). For example, many resources related to parents as "driving instructor" are available from public agencies, private groups, and insurance companies. Few have been evaluated and none are embedded in what might be considered a comprehensive, planned, educational program. In addition, many high schools and special interest groups such as SADD/MADD disseminate information to parents about teen alcohol and other substance use and driving. However, most of these programs involve only a small number of highly-interested parents (Beck et al., 2002).

Currently, graduated driver licensing (GDL) programs in multiple states require parents to provide 20-60 hours of supervised practice driving for their teenagers during the permit of phase of licensing (see Insurance Institute for Highway Safety, 2005, for a list by state). For example, 13 states, including California, Colorado, Idaho, Montana (starting in July 2006), Oregon, and Washington, require 50 hours of practice driving before teenagers are eligible for a restricted license. Most of the research shows that parents support increased practice driving in GDL programs (Beck, Shattuck, Raleigh, & Hartos, 2003; see review, Mayhew 2003).

Despite national support for increased parental involvement in teen driving, few intervention efforts focus on the parent role as "gatekeeper," a supervisory role such as that of GDL. GDL policies delay the eligible ages for permits, provisional licenses, and unrestricted licenses; increase supervised driving; place restrictions on driving at night and with teen passengers; and require young drivers to be "violation free" for an allotted amount of time before obtaining an unrestricted license (Insurance Institute, 2005). Parents can do each of these—determine when teenagers get a permit and license; require extra practice driving prior to independent driving; restrict when, where, and under what conditions teenagers drive; and impose consequences for violations of rules or restrictions. Our research indicates that parent behaviors are related to teen driving outcomes; that use of persuasive communications can positively impact parents' attitudes and behaviors toward regulating teen driving; and that promoting parental management of teen independent driving is most effective when it begins before teens begin unsupervised driving (Simons-Morton, Hartos, & Beck, 2004; Simons-Morton, Hartos, Leaf, & Preusser, in press).

Programmatic efforts to increase parental management of teen driving could be integrated into driver education to increase parental involvement in young driver safety, including determining when, where, and under which conditions teenagers can drive (Simons-Morton, & Hartos, 2003). This may be even more important in rural areas. Western rural states, including Montana, have teen and overall crash rates that are higher than the national average because a greater percentage of miles traveled are rural. Most of Montana's roadways are rural and in 2003, of all crashes and 89.5% of fatal crashes occurred in rural locations (Montana Department of Transportation, 2004). The higher speeds involved in rural crashes contribute to higher rates of fatalities and serious injuries when compared to urban crashes (Montana Department of Transportation, 2004). Therefore, promoting parent management of teen independent driving in rural areas may be important in reducing teen driver risk.

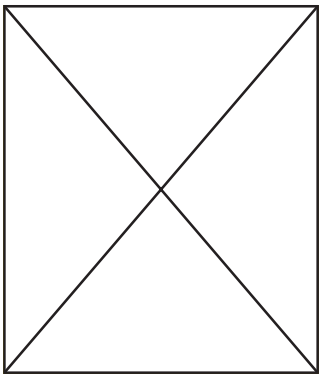
However, the extent to which parents would support mandatory parent involvement in driver education is unknown. Although most parents support state policies that restrict teen driving (Mayhew, 2003), parents have busy schedules and little time to attend formal programs. In addition, access to programs may be even more difficult for parents in rural areas. Therefore, the purpose of this study was to determine the extent to which parents in Montana (1) are involved currently in driver education and (2) would be willing to be included in driver education.

Methods/Participants

A stratified sample by school size

(continued on page 4)

Dr. Allen Robinson, CEO



Allen Robinson

In this issue of the Chronicle, you did not receive the News and Views section of general driver education information. This was a decision I recommended to the Executive Committee. The work required to do the Chronicle and News and Views is enormous.

The Executive Committee would like to have your views on the type of publication to be prepared for your use. Therefore, a survey will soon be sent to you asking for your input on this critical ADTSEA publication. I urge you to carefully consider the questions and reply as requested.

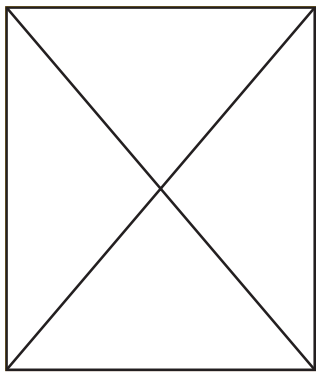
Speaking of surveys, it was recommended by the Northwest Region that a survey of ADTSEA membership be undertaken to help focus the direction of the association. David Huff of Montana volunteered to do this, but had pressing work related needs which forced him to seek help. Dr. Dale Ritzel of Southern Illinois University agreed to develop this survey to provide input from our members. This information is needed to guide the Board of Directors and the IUP management team in providing necessary services to the members.

I know all of you are busy and wonder why you should take the time to complete these surveys. I assure you it will be time well spent. If the services don't meet all of your concerns, I encourage you to email me at arrobin@iup.edu or call 1-800-896-7703. I sincerely want to know what you are thinking and how we can all work together to meet our needs.

The results of our recent election are in this publication. The candidates for each office were excellent representatives of our Association. It is

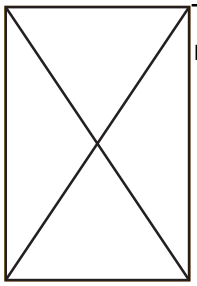
(Robbie continued on page 11)

Jim Gibb, President



Jim Gibb

Editor's Notes The winners of the recently completed election are : Gary Scott President Elect, Fred Nagao Treasure, Judy Ode NW Board Member and the constitutional amendments. Teacher of the Year nominations are being taken until June 9, 2006. For more information check the ADTSEA web site or email Terry Kline at Terry.Kline@eku.edu As I prepared this issue of"The Chronicle" without it's traditional companion "News & Views" available it became necessary to condense items of interest to titles and either a web address or bibliographic information. Hopefully you will be able determine your interest in the item and find the details you seek by using the web addresses or bibliographic citation. Information on cell phones and fuelingat http://www.pei.org. Tires and Passenger Vehicle Fuel Economy: Informing Consumers, Improving Performance http://trb.org/news/blurb detail.asp?id=5973 New Improved, Comprehensive, and Automated Driver's License Test and Vision Screening System http://trb.org/news/blurb detail.asp?id=5874 Driver Cell Phone Use in 2005 http://trb.org/news/blurb detail.asp?id=5821 A great web site on Fuel Economy http://www.fueleconomy.com Learning to Teach in Driver's Ed. by Robert Barsanti "Education Week" Jan. 18, 2006 Vol. 25, Issue 19, Page 36.



John W. Palmer

The Chronicle of the American Driver and Traffic Safety Education Association

Allen Robinson, Ph.D.
Chief Executive, ADTSEA
IUP Highway Safety Center
Indiana, PA 15705-1092
(724) 357-4051 (Office)
(724) 357-7595 (Fax)
arrobin@iup.edu (new)
http://adtsea.iup.edu

~ ~ ~ ~ ~

The Chronicle of the American Driver and Traffic Safety Education Association is published quarterly in cooperation with the Indiana University of Pennsylvania Highway Safety Center.

~ ~ ~ ~ ~

Publishing Information

Editor John Palmer, Ph.D.
Send article submissions to:

John Palmer, Ph.D
832 Halliday Road
St. Cloud, MN 56301
palmertss@cloudnet.com

~ ~ ~ ~ ~

Advertising Information

Camera-ready advertisement may be submitted to:
Allen Robinson, Ph.D.
Executive Director, ADTSEA
IUP Highway Safety Center
Indiana, PA 15705-1092
724-357-4051

~ ~ ~ ~ ~

***The Chronicle* Editorial Deadlines**

Winter '06 Issue	Dec. 1, 2006
Spring '06 Issue	Mar. 1, 2006
Summer '06 Issue	June 1, 2006
Fall '06 Issue	Sept. 1, 2006

Publication Guidelines

Articles submitted for *The Chronicle* are subject to peer review and should conform to the American Psychological Association style. The basic reference for style is 1983 *Publication Manual of the American Psychological Association (3rd ed.*). Authors are responsible for adherence to style. A Word for Mac 6.0 or RTF file is required for peer review. Articles may be reprinted with credits to the author and The Chronicle of ADTSEA.

~ ~ ~ ~ ~

Printing Information

This publication is prepared using PageMaker 6.5.2 and printed by Speedy Print, Waite Park, MN.

Table of Contents
Spring 2006

Volume 54 **Number 2**