

A Bibliography of Research Related to the Use of Wireless Communications Devices from Vehicles

February 2005

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16. Abstract

This document represents an up-to-date bibliography of available research conducted by the National Highway Traffic Safety Administration (NHTSA) and other organizations from the mid-1990s to 2005, as well as a brief overview of state legislative activity regarding wireless voice communications in vehicles. Note that in many cases the research included in this bibliographical listing are pertinent to the general issue of distraction by virtue of: (1) the similarity of actions and demands related to using wireless communication and other distracting actions in which drivers engage; (2) the inclusion of other distracting tasks in research studies; and (3) the scope of legislation or discussions of liability.

The published research presented in this bibliography was drawn from all available sources the authors could identify based on personal knowledge, a comprehensive review of the literature, contacts with experts in the field and searches on the internet. In an effort to present an unbiased compilation, all published research studies were included regardless of their source or findings. The classification of research into source categories (i.e., type of source from which each citation is drawn) was made to facilitate access for the reader and does not reflect an indication of importance or relevance. The five categories identified for the purpose of this bibliography include: NHTSA, Journals, Conference Proceedings, Technical Reports, and Other Research/Sources. Within each category references are ordered by year of publication and then alphabetically by author.

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TABLE OF CONTENTS

1.	INTRODUCTION	5
2.	RESEARCH BIBLIOGRAPHY - USING WIRELESS COMMUNICATION DEVICES	
	WHILE DRIVING	5
	Source of Citation: NHTSA	5
	Source of Citation: JOURNALS	6
	Source of Citation: CONFERENCE PROCEEDINGS	13
	Source of Citation: TECHNICAL REPORTS	18
	Source of Citation: OTHER RESEARCH/SOURCES	22
3.	OVERVIEW OF ACTIVITY AT THE STATE LEVEL	23
	3.1 Highlights of New York State Vehicle and Traffic Law – Title 7 Article 33 – 1225C	
	Use of Mobile Telephones	24
	3.2 Highlights of New Jersey's Section 4 of Title 39 of the Revised Statutes: C.39:4-97.3	
	Use of hands-free wireless telephone in moving vehicle	25
	3.3 Highlights of the District of Columbia's Distracted Driving Safety Act of 2004 (L15-	
	124)	26
4.	AUTHOR INDEX	29

1. INTRODUCTION

The following represents an up-to-date bibliography of available research conducted by the National Highway Traffic Safety Administration (NHTSA) and other organizations from the mid-1990s to 2005, as well as a brief overview of state legislative activity regarding wireless voice communications in vehicles. Note that in many cases the research included in this bibliographical listing are pertinent to the general issue of distraction by virtue of: (1) the similarity of actions and demands related to using wireless communication and other distracting actions in which drivers engage; (2) the inclusion of other distracting tasks in research studies; and (3) the scope of legislation or discussions of liability.

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Additional information concerning NHTSA research on the issue of distraction in general, and cell phones in particular, can be found on the NHTSA website at http://www-nrd.nhtsa.dot.gov/departments/nrd-13/DriverDistraction.html.

2. RESEARCH BIBLIOGRAPHY - USING WIRELESS COMMUNICATION DEVICES WHILE DRIVING

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3. OVERVIEW OF ACTIVITY AT THE STATE LEVEL

As reported by the National Conference of State Legislatures, few states specifically regulate wireless phone use in motor vehicles. In particular (as of September 2004),

- As of November 1, 2001, New York prohibits drivers from talking on hand-held cell phones while driving.
- As of July 1, 2004, New Jersey prohibits drivers from talking on hand-held cell phones while driving, but this is only enforceable as a secondary traffic violation.
- The District of Columbia enacted a law in 2004 (effective July 1, 2004) that bans the use of hand-held phones (with certain restrictions) by all drivers, bans the use of any cell phones by novice drivers and school bus drivers, and also addresses distracted driving in general.
- In September 2004, California enacted a law (effective January 1, 2005) that makes it illegal to use a cellular phone while driving a school bus or other public-transit vehicle.

- California requires that rental cars with cellular telephones must include written operating instructions for safe use of the phone.
- Florida and Illinois allow cell phone use in the car as long as sound to both ears of the driver is not impaired.
- Arizona, Delaware, Illinois, Massachusetts, New Jersey, Rhode Island, and Tennessee have enacted legislation that prohibits the use of cell phones while operating a school bus.
- Delaware clarified that school bus drivers can use a radio or telephone device to make or receive calls for assistance.
- Massachusetts also requires that all drivers have at least one hand on the steering wheel at all times while using a cell phone.
- New Jersey enacted legislation in 2002 that prohibits the holder of a driver examination permit from using any interactive wireless device while operating a motor vehicle, with emergency use exceptions.
- Maine enacted legislation in 2003 that prohibits drivers with only an instruction permit from using a mobile telephone (a device used to access a wireless telephone service) while operating a motor vehicle.

In addition,

- Delaware, Louisiana, Virginia, New Jersey, New Mexico, Pennsylvania, and the District
 of Columbia have approved resolutions to study the risks associated with cell phones and
 driving.
- New Jersey passed a measure to provide for data collection and also prohibits drivers with learner's permits from using a cell phone while driving.
- Illinois allows the use of one-sided hands-free headsets with cell phones.
- New Hampshire passed a comprehensive distracted driving law.
- Florida, Kentucky, Louisiana, Mississippi, Nevada, Oklahoma and Oregon are preventing local jurisdictions from enacting ordinances regarding cell phone use while driving.
- At least 16 states California, Florida, Iowa, Maryland, Massachusetts, Montana, Michigan, Minnesota, Nebraska, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, Tennessee, and Texas – and the District of Columbia collect information on crash report forms about cell phones and driver distractions.

3.1 HIGHLIGHTS OF NEW YORK STATE VEHICLE AND TRAFFIC LAW – TITLE 7 ARTICLE 33 – 1225C USE OF MOBILE TELEPHONES

- Date of Applicability: November 1, 2001
- Primary traffic offense
- Definitions
 - "Mobile telephone" shall mean the device used by subscribers and other users of wireless telephone service to access such service.
 - "Wireless telephone service" shall mean two-way real time voice telecommunications service that is interconnected to a public switched telephone network and is provided by a commercial mobile radio service.

- "Using" shall mean holding a mobile telephone to, or in the immediate proximity of, the user's ear.
- "Hand-held mobile telephone shall mean a mobile telephone with which a user engages in a call using at least one hand.
- "Hands-free mobile telephone" shall mean a mobile telephone that has an internal feature or function, or that is equipped with an attachment or addition, whether or not permanently part of such mobile telephone, by which a user engages in a call without the use of either hand, whether or not the use of either hand is necessary to activate, deactivate or initiate a function of such telephone.
- "Engage in a call" shall mean talking into or listening on a hand-held mobile telephone, but shall not include holding a mobile telephone to activate, deactivate or initiate a function of such telephone.
- "Immediate proximity" shall mean that distance as permits the operator of a mobile telephone to hear telecommunications transmitted over such mobile telephone, but shall not require physical contact with such operator's ear.
- No person shall operate a motor vehicle upon a public highway while using a mobile telephone to engage in a call while such vehicle is in motion if the operator of a motor vehicle holds a mobile telephone to, or in the immediate proximity of his or her ear.
- This law shall not apply to the use of a mobile telephone for the sole purpose of communicating with any of the following regarding an emergency situation:
 - An emergency response operator
 - A hospital
 - A physician's office or health clinic
 - An ambulance company or corps
 - A fire department, district or company
 - A police department

Or any of the following persons while in the performance of their official duties:

- A police officer or peace officer
- A member of a fire department, district or company
- The operator of an authorized emergency vehicle as defined by law.

Or the use of a hands-free mobile telephone.

3.2 HIGHLIGHTS OF NEW JERSEY'S SECTION 4 OF TITLE 39 OF THE REVISED STATUTES: C.39:4-97.3 USE OF HANDS-FREE WIRELESS TELEPHONE IN MOVING VEHICLE

- Date of Applicability: July 1, 2004
- Secondary traffic offense
- Definitions
 - "Hands-free wireless telephone" means a mobile telephone that has an internal feature or function, or that is equipped with an attachment or addition, whether or not permanently part of such mobile telephone, by which a user engages in a conversation without the use of either hand; provided, however, this definition shall not preclude the use of either hand to activate, deactivate, or initiate a function of the telephone.
 - "Use" of a wireless telephone shall include, but not be limited to, talking or listening to another person on the telephone.

- The use of a wireless telephone by an operator of a moving vehicle on a public road or highway shall be unlawful except when the telephone is a hands-free wireless telephone, provided that its placement does not interfere with the operation of federally required safety equipment and the operator exercises a high degree of caution in the operation of the motor vehicle.
- The operator of a motor vehicle may use a hand-held wireless telephone while driving with one hand on the steering wheel only if:
 - The operator has reason to fear for his life or safety, or believes that a criminal act may be perpetrated against himself or another person;
 - The operator is using the telephone to report to appropriate authorities a fire, a traffic accident, a serious road hazard or medical or hazardous materials emergency, or to report the operator of another motor vehicle who is driving in a reckless, careless, or otherwise unsafe manner or who appears to be driving under the influence of alcohol or drugs.
- Enforcement of this act by State or local law enforcement officers shall be accomplished
 only as a secondary action when the operator of a motor vehicle has been detained for
 another violation.
- The prohibitions set forth in this act shall not be applicable to any of the following persons while in the actual performance of their official duties: a law enforcement officer; a member of a paid, part-paid, or volunteer fire department or company; or an operator of an authorized emergency vehicle.

3.3 HIGHLIGHTS OF THE DISTRICT OF COLUMBIA'S DISTRACTED DRIVING SAFETY ACT OF 2004 (L15-124)

- Date of Applicability: July 1, 2004
- Primary traffic offense
- Definitions
 - "Distracted driving" means inattentive driving while operating a motor vehicle that results in the unsafe operation of the vehicle where such inattention is caused by reading, writing, performing personal grooming, interacting with pets or unsecured cargo, using personal communications technologies, or engaging in any other activity which causes distractions.
 - "Hands-free accessory" means an attachment, add-on, built-in feature, or addition to a mobile telephone, whether or not permanently installed in a motor vehicle, that when used allows the vehicle operator to maintain both hands on the steering wheel.
 - "Mobile telephone" means a cellular, analog, wireless, or digital telephone capable of sending or receiving telephone messages without an access line for service.
 - "Other electronic devices" includes, but is not limited to, hand-held computers, pagers, and video games.
 - "Use" means talking, placing, or receiving a call, or attempting to place or receive a call, on a mobile telephone.
- Distracted driving shall be prohibited.
- No person shall use a mobile telephone or other electronic device while operating a moving motor vehicle in the District of Columbia unless the telephone or device is equipped with a hands-free accessory. The provisions shall not apply to the following:

- Emergency use of a mobile telephone, including calls to 911 or 311, a hospital, an ambulance service provider, a fire department, a law enforcement agency, or a first-aid squad:
- Use of a mobile telephone by law enforcement and emergency personnel or by a driver of an authorized emergency vehicle, acting within the scope of official duties; or
- Initiating or terminating a telephone call, or turning the telephone on or off.
- A person shall not use a mobile telephone or other electronic device, including those with hands-free accessories, while operating a moving school bus that is carrying passengers; does not apply to school bus driver who places an emergency call to school officials or to exceptions indicated above.
- A person who holds a learner's permit shall be prohibited from using any mobile telephone or other electronic device, including those with hands-free accessories, while operating a moving motor vehicle on a public roadway except in an emergency, as indicated above.

This law also provides for the following:

- Whenever the Metropolitan Police Department makes a written report on an accident involving a motor vehicle, the report shall include the following information:
 - Whether a mobile telephone or other electronic device was present in the motor vehicle:
 - Whether the use of a mobile telephone or other electronic device by a motor vehicle operator may have contributed to the cause of the accident;
 - Whether any other distraction may have contributed to the cause of the accident.
- The Director of the Department of Motor Vehicles shall include educational information on the use of mobile telephones and other electronic devices while driving in the District's Driver and Motorcycle Operator's Study Guide. The Director shall also include questions pertaining to distracted driving and mobile telephone usage while driving on the driver's license exam.
- The Director of the Distract Department of Transportation shall annually publish and submit to the Council a report containing statistics regarding the possible relationship between motor vehicle accidents in the Distract of Columbia and the use of mobile telephones or other electronic devices by motor vehicle operators.
- The Mayor shall, within 2 years and 6 months after the effective date of this act, submit a report to the Council containing recommendations concerning the use of mobile telephones or other electronic device in motor vehicles. The report shall include a recommendation as to whether the provisions of this act should be amended. Projected date is December 2006.

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4. AUTHOR INDEX

AAA Foundation for Traffic Cafety 10	Providen C 10
AAA Foundation for Traffic Safety, 19	Burton, S., 19
Abdel-Aty, M., 8	Caird, J., 7, 14
AEI-Brookings Joint Center for	California Highway Patrol, 20
Regulatory Studies, 18, 20, 22	Carnegie Mellow University, 11
Albert, R.W., 17	Carpenter, P.A., 11
Alm, H., 10, 13	Carsten, O.M.J., 7
Al-Tarawneh, I.S., 13, 15	Carter, C., 10
Amenedo, E., 10	Carter, M., 9
Angers, J-F., 15, 18	Cathey, L., 15
Artz, B., 15	Caven, B., 11
Astrain, I., 8	Ceci, R., 18, 19
Atchley, P., 7	Chapman, P., 13
Aymerich, M., 13	Charles D. L. 12
Ayres, T., 11	Cheriptons B 15
Baas, P.H., 8	Christens, P., 15
Backs, R.W., 15	Chun, M., 7
Bains, M., 13	Claverol, J., 8
Barrett, R., 22	Cohen, J.T., 8, 21
Beirness, D.J., 19 Polloyenge, F. 0, 15, 18, 21	Colomon B 10
Bellavance, F. , 9, 15, 18, 21	Coleman, P., 10
Benel, D., 6	Compton, R., 5, 6
Bennett, D., 9	Consiglio, W., 8
Bents, F.D., 6, 12	Cooper, J.M., 15
Berg, W.P., 8, 11	Cooper, P.J., 8, 9, 20
Bernaus, J., 8	Courchesne, S., 15
Bhise, V.D., 16	Court, C.M., 20
Bishu, R.R., 13, 15	Crawford, J.A., 16, 20
Blanco, M., 14	Crouch, D.J., 16, 18
Blommer M., 15	Crundall, D., 13
Boehm-Davis, D.A., 7	Cunill, M., 13
Bolling, A., 18, 19	Curry, R., 15
Bourhattas, M., 15	De Waard, D., 10
Boyle, J.M., 6	Dennis, W.M., 7
Braver, E.R., 20	Desjardins, D. , 9, 18, 21
Briem, V., 13	Desmond, K., 19
Brook-Carter, N., 7	Dickinson, L.V., 15
Brookhuis, K.A., 10	Dowd, J.D. , 16
Brooks, J., 7	Dressel, J., 7
Brown, T.L., 11	Drews, F.A. , 8, 9, 13, 15, 16, 17, 18
Burch, D., 19	Driscoll, P., 8
Burnett, J.K., 11	Dudley, P.M., 20
Burns, P.C., 14, 15, 19	Eby, D.W. , 8

Eiser, J.R., 8 Hernández-Gress, N., 10 Eizenman, M., 20 Ho, G., 7 Hockey, G.R.J., 7 Ellis, J.M., 18 **Emery, L.**, 11 **Hooijmeijer, V.**, 17, 23 Esbjörnsson, M., 15 Horrey, W.J., 14 Escobar, A., 8 Horwitt, D., 9 ExxonMobil, 18 Howarth, H., 12 Fang, M., 9, 20 Huang, H.F., 16, 19, 20, 21 **Feaganes, J.R.**, 19, 21 **Human Factors and Ergonomics Society** (**HFES**), 13, 14, 15, 16, 17 Fitzgerald, C., 11 **Friedman, D.**, 16, 21 Humphrey, D., 11 **Fuse, T.**, 10 **Hunter, W.W.**, 9, 16, 20, 21 Garcia-Larrea, L., 10 **Insurance Corporation of British** Garewal, D., 9 **Columbia (ICBC)**, 20, 21 **Geary, L.L.**, 7, 20 **Insurance Institute for Highway Safety** Gehrke, H., 9 (IIHS), 20 **Gish, K.**, 19 **Irwin, D.E.**, 7, 17 Irwin, M., 11 **Glaze, A.L.**, 18 **Glumm, M.**, 17 **Ishida, T.**, 11 **Godoy, P.**, 8 Jamson, A.H., 7 **Goodman, M.J.**, 6, 12 Jenkins, J.M., 20 **Graham, J.D.**, 8, 21 **Jenness, J.**, 10, 16 **Graham, R.**, 10 Johnson, M.B., 7 **Grant, P.**, 15 **Johnston, W.A.**, 9, 11, 17 Joint State Government Commission, Gras, M., 13 **Green, P.**, 8, 12, 16, 21 General Assembly of the Greenberg, J., 15 Commonwealth of Pennsylvania, 23 **Gugerty**, L., 7, 8 **Juhlin, O.**, 15 **Gustafsson, S.**, 14, 18 Just, M.A., 11 Haake, S., 11 **Kagaya, S.**, 11, 17 **Hagiwara, T.**, 11, 17 Kauranen, T., 12 **Hahn, R.W.**, 11, 18, 20, 22 **Keller, T.A.**, 11 **Haigney, D.E.**, 10, 11, 22 **Kelsh, M.**, 12 Hamlett, C., 19 Kersloot, T., 7 **Kilduff, P.**, 17 **Hammer**, **M.**, 19 Hammoud, S., 15 **Kircher, A.**, 7, 18, 19 **Hancock, P.A.**, 7, 8, 12, 17 **Kochhar, P.**, 15 **Hankey**, **J.**, 14 **Konig, W.**, 9 **Harbluk, J.L.**, 16, 20 **Kozak, K.**, 15 Harms, L., 8 **Kramer, A.**, 7, 17 Harris, P.R., 8 **Krauss, D.**, 13 Harvard Center for Risk Analysis, 21 Laakso, M., 12 **Hasemi, L.**, 12 Laberge, J., 14 Hedman, L.R., 13 **Laberge-Nadeau, C.**, 9, 15, 21 Heinrichs, B., 8 LaBerge-Nadeau, C., 18 **Hels, T.**, 15 **Lacey, J.H.**, 7

Lähdeniemi, E., 10 Monk, C.A., 7 **Lam, L.**, 10 Monteressi, C., 18 **Lamble**, **D.**, 12 Moray, N., 12 **Lange, J.E.**, 7 Mouloua, M., 17 **Lansdown, T.**, 7, 15 **Mrad, R.J.**, 12 **Lapierre, S.**, 9, 15, 18 **Murray, J.**, 11 **Latour, R.**, 18 National Conference of State Legislatures **Lattanzio, R.**, 10, 16 (NCSL), 22, 23 Lee, J.D., 11, 14 **National Highway Traffic Safety Legg, S.**, 9 Administration (NHTSA), 6 **Lehman, R.**, 17 National Transportation Safety Board Lerner, N., 6 (**NTSB**), 19 **Lesch, M.**, 7, 8, 17 NHTSA, 6 **NHTSA Driver Distraction Internet Lin, J.**, 11 Lissy, K.S., 21 Forum. 6 **Nilsson, L.**, 7, 10, 13, 18, 19 **Liu, Y.**, 9 **Llamazares, I.**, 10, 20 **Nowakowski, C.**, 16, 21 **Luke, T.**, 14 **Nov, Y.I.**, 20 Luukkanen, L., 14 Nunes, L., 9, 10, 11 **Lyda, L.**, 10 O'Toole, M., 10, 16 **Maag, U.**, 9, 18, 21 Onodera, Y., 11 Macuga, K.L., 10 Osborne, V.M., 10 Ostlund, J., 7 **Malmström, T.**, 18, 19 **Manser, M.P.**, 20 Owens, J.M., 17 Marois, R., 7 Pachiaudi, G., 23 Marshall, J.R., 13 **Park, M.Y.**, 21 **Parkes, A.M.**, 11, 14, 15, 17, 19, 23 Matsuki, Y., 10 Matsunaga, K., 10 Pasupathi, M., 13 **Patten, C.**, 7, 8, 18, 19 Matsuura, T., 11 Matthews, R., 9 **Pauzié, A.**, 23 **Pax, C.**, 10 Mayser, C., 9 **Mazzae**, E., 14 Perchet, C., 10 McCarley, J., 7 **Perrin, F.**, 10 McCarley, J.S., 17 Petersen, A., 22 McCartt, A.T., 7, 20 Piechulla, W., 9 **McKnight, A.J.**, 13, 22 **Pillalamarri, R.**, 17 **McKnight, A.S.**, 7, 13, 22 **Planes, M.**, 13 McPhee, L.C., 7 Poirier, L-F., 15 **Meadows, T.**, 19 Pöysti, L., 6 Prieger, J.E., 18 Mercadante, M., 19 **Messier, S.**, 9, 15, 18, 21 **Pringle, H.**, 7, 17 **Michael, J.B.**, 9, 22 **Rajalin, S.**, 6, 14 **Minnesota House of Representatives** Rakauskas, M., 7, 8 Research Department, 23 **Ranney, T.**, 12, 14 **Monash University Accident Research Read, L.**, 9 Centre, 19 **Recarte, M.**, 9, 10, 11

Redelmeier, D.A., 12	Swedish National Road Administration
Reed, M., 12	(SNRA), 7, 15, 18, 19
Regan, M., 19	Tauson, R., 17
Reimer, B., 10, 20	Taylor, D., 9
Reinfurt, D. , 19, 21	Taylor, N. , 10, 16
Reinfurt, D.W., 21	Taylor, R.G., 11, 22
Reyes, M.L., 14	Tetlock, P.C., 11, 22
Richard, C., 8	Texas Transportation Institute (TTI), 20
Rienzi, B., 10	The Gallup Organization, 6
Rodgman, E., 19, 21	Thulborn, K.R., 11
Royal Society for the Prevention of	Thulin, H., 14, 18
Accidents, 22	Tibshirani, R.J., 12
Royal, D. , 6	Tijerina, L., 6, 12, 15
Sagberg, F., 11	Tokunaga, R.A. , 11, 17
Saïdi, A., 9, 21	Törnros, J., 18, 19
Salminen, S., 10	Trachtman, D., 13
Salvucci, D.D., 10	Tractinsky, N., 5, 6
Salzberg, P., 20	Traffic Injury Research Foundation
Scallen, F., 12	(TIRF), 19
Schreiner, C.S., 14	Transport Canada 20
Scialfa, C., 7, 14	Transport Canada, 20 Transport Research Laboratory, 10, 20
Sepúlveda, E.D., 20	Transport Research Laboratory, 19, 20,
Sheffert, S.M., 15	23 Tyberiah D. 16
Shidoji, K., 10	Trbovich, P., 16
Shimojo, A., 17	Treffner, P., 22
Shinar, D., 5, 6	Troglauer, T., 15
Siegmund, G., 8	Tsimhoni, O., 8
Simmons, L., 8, 12, 17	Uchida, K., 17
Simpson, H.M., 19	Umezaki, K., 10
Sisiopiku, V.P., 17	Underwood, G., 13
Smid, E., 16	University of Michigan Transportation
Smiley, A., 12	Research Institute (UMTRI), 21
Smith, D., 8	University of Montreal, 21
Smith, E., 21	University of North Carolina, Highway
Smith, R., 14, 19	Safety Research Center (UNC HSRC),
Smyth, C., 17	20, 21
Sodhi, M. , 10, 20	University of Rhode Island, 20
Spence, C., 9	Utter, D., 6
Staplin, L. , 19, 21	Vais, M., 7, 17
Statistical Society of Canada, 15	Vanderwolf, P., 6
Strayer, D. , 7, 8, 9, 11, 13, 15, 16, 17, 18	Vavrik, J., 8
Stutts, J.C. , 9, 16, 19, 20, 21, 23	Violanti, J.M., 12, 13
Sullman, M., 8, 13	Virginia Commonwealth University
Summala, H., 6, 12, 14	(VCU), 18
Svensson, O., 19	Vivoda, J.M., 8
	Voas, R.B. , 7

Vogel, K., 18, 19

VTI/Swedish National Board and

Transport Research Institute, 18

Ward, N., 8, 11

Washington Traffic Safety Commission, 20

Watson, G., 14

Waugh, J., 17

Weinstein, M.C., 12

Westerman, S.J., 7, 10, 11

Wetzel, J.M., 15

White, C., 14

White, M.P., 8

Wickens, C.D., 14

Wierwille, W.W., 6, 12

Wiggins, S., 9, 20

Wightman, J., 14

Wilcox, S.B., 18

Wilson, J., 9, 20

Wisconsin State Patrol, 19

Witte, M., 8

Woo, T.H., 11

Wood, C., 11

Yi, D-J., 7

Young, K., 19

Zajac, H., 11

Zheng, Y., 8, 9