

CMORE Request for Intervenor Funds

March 14, 2018

EXHIBIT A

Curriculum vitae

William Ross Evans

Ornithologist

(Specializing in the study of nocturnal bird migration)

Biography & accomplishments:

Noted expert on bird vocalizations of eastern North America; co-authored the 2002 CD-Rom: Flight Calls of Migrant Landbirds (Eastern North America).

Over the past 30 years developed the method of studying nocturnal bird migration by monitoring avian flight calls. This expertise led to actions and research toward minimizing avian impact at communications towers and industrial-scale wind turbines since 1994.

Involvement with the issue of avian impacts from communications towers and artificial light since 1998:

Created www.towerkill.com (1998), a website for distributing information on the issue of avian mortality at communications towers.

Director of New York State Towerkill Survey evaluating whether large avian mortality events were still occurring at 15 tall television towers in central NY. Coordinated permissions, permits, and volunteer surveyors, and participated in surveys. Largest single night/single tower kill documented was ~250 songbirds. 1998-1999.

Co-organized the first conference toward mitigating avian mortality at communications towers – held during the 119th meeting of the American Ornithologist's Union at Cornell University in August 1999.

Became member of the US Fish & Wildlife Service's Communications Tower Working Group (CTWG) in 1999.

Received funding from the CTWG for research toward mitigating avian mortality at communications towers in 2003. This led to a novel study on the impact of artificial light on night migrating birds ([Evans et al. 2007](#)) that supported the legal case to move the US Federal Communication Commission (FCC) & US Federal Aviation Administration (FAA) to approve solely flashing aviation obstruction lighting, a regimen for communication towers that has less impact on night migrating songbirds. (FCC: Effects of Communications Towers on Migratory Birds, WT Docket No. 03-187).

Principal investigator on a grant from the Park Foundation to study the impact of artificial light on night migrating birds. Study involved thermal imaging and acoustic monitoring during changing artificial light conditions. 2008-2011.

Involvement with avian impacts at commercial wind farms since 1994:

Conducted avian impact studies for developers of 9 commercial wind farms in the US (see list of energy-related contracts below).

Provided consultation and critical review of environmental impact statements for opponents of six commercial wind projects (see list of energy-related consultation below).

Gave expert testimony at Hearings before the Maryland & West Virginia Public Service Commissions regarding the impacts of specific wind energy projects on night migrating birds (2002 & 2003).

Invited speaker for US Environmental Protection Agency organized conference (2006) "Toward Wildlife-Friendly Windpower". A conference toward minimizing wind-power effects on wildlife and toward developing consistent wind energy management approaches within the Great Lakes basin.

Invited speaker for New York State Energy Research and Development Authority and New York Department of Environmental Conservation conference (2006) "Wind and Wildlife Issues" workshop. A workshop identifying informational needs for assessing potential impacts of wind power development on birds and bats.

Principal investigator (subcontracted) for the US Government in building a datagap analysis for avian impacts of offshore wind energy along the US eastern coastal region (Michel et al. 2007 – see publications).

Co-authored 2009 letter to US and Canadian wildlife agencies regarding avian impact of a mass build out of commercial wind energy facilities in the near-shore region of northeastern Lake Ontario.

Principal investigator in a New York State Energy Research and Development Authority (NYSERDA) study of avian impacts at the Maple Ridge Wind Project in northern New York. (Evans 2012a & 2012b – see publications)

Retained as an expert by the Town of Cape Vincent in the New York State Article 10 proceeding regarding British Petroleum's Cape Vincent Wind Project in upstate New York. 2013.

Gave expert testimony before Ontario's Environmental Review Tribunal regarding four wind projects between 2013-2015 (Ostrander, Ernestown, White Pine, and Amherst Island Wind Projects).

Gave expert testimony before In the US District Court For The Western District Of Michigan Northern Division regarding the expansion of the Garden Peninsula Wind Project in northern Michigan. 2015.

My current research involves developing an independent population index for many species of night migrating birds based on long-term monitoring of the vocalizations they give in nocturnal migration. I am also involved with studies toward understanding the impacts of artificial light on night-migrating birds and the concentration dynamics of night-migrating birds along shorelines and their channeling in montane terrain. My research has been featured on BBC, CBC, NPR, PBS (NOVA), and in The New York Times, Science and numerous other science-news periodicals. I live with my wife and two children in Ithaca, NY.

Education: Oberlin College ('77-'81); University of Minnesota ('82-'86). No degrees sought.

Peer-reviewed publications:

Evans, W.R. 2012. An Evaluation of the Potential for Using Acoustic Monitoring to Remotely Assess Aerial Vertebrate Collisions at Industrial Wind Energy Facilities. New York State Energy Research and Development Authority, Albany, NY. NYSERDA Report 12-26. December 2012. 17 pp. Study and supporting material downloadable at <http://www.oldbird.org/nyserda/nyserda.htm>

Evans, W.R. 2012. Avian Acoustic Monitoring Study at the Maple Ridge Wind Project 2007-2008. New York State Energy Research and Development Authority, Albany, NY. NYSERDA Report 12-23. December 2012. 35 pp. <http://www.nyserda.ny.gov/-/media/Files/Publications/Research/Environmental/Avian-Acoustic-Monitoring-Study-Maple-Ridge.pdf>

Evans, W.R. 2010. Response by William R. Evans to: Green light for nocturnally migrating birds. *Ecology and Society* 15(3): r1. <http://www.ecologyandsociety.org/vol15/iss3/resp1/>

Evans, W.R., Y. Akashi, N.S. Altman, and A.M. Manville II. 2007. Response of night-migrating songbirds in cloud to colored and flashing light. *North American Birds* 60:476-488. <http://www.oldbird.org/pubs/lightstudy.pdf>

Michel, J., Dunagan, H., Boring, C., Healy, E., Evans, W., Dean, J.M., McGillis, A. and Hain, J. 2007. Worldwide Synthesis and Analysis of Existing Information Regarding Environmental Effects of Alternative Energy Uses on the Outer Continental Shelf. U.S. Department of the Interior, Minerals Management Service, Herndon, VA, MMS OCS Report 2007-038. 254 pp. (For online access, go to www.boem.gov (search for "2007-038").

Larkin, R.P., W.R. Evans, and R.H. Diehl, 2002. Nocturnal flight calls of Dickcissels and Doppler radar echoes over south Texas in spring. *Journal of Field Ornithology* 73:2-8.

Evans, W.R. 2000. Applications of Acoustic Bird Monitoring for the Wind Power Industry PNAWPPM-III. 2000. In Proc. of National Avian - Wind Power Planning Meeting III, San Diego, Calif., May 1998. Prepared for the Avian Subcommittee of the National Wind Coordinating Committee by LGL Ltd., King City, Ont. 202 pp. <http://old.nationalwind.org/publications/wildlife/avian98/21-Evans-Acoustics.pdf>

Evans, W.R. and K.V. Rosenberg. 2000. Acoustic monitoring of night-migrating birds: a progress report. In Bonney, Rick, David N. Pashley, Robert J. Cooper, and Larry Niles, eds. *Strategies of Bird Conservation: The Partners in Flight Planning Process*. Proceedings of the 3rd Partners in Flight Workshop; 1995 October 1-5; Cape May, NJ. Proceedings RMRS-P-16. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. http://birds.cornell.edu/pifcapemay/evans_roseberg.htm

Evans, W.R. and D.K. Mellinger. 1999. Monitoring grassland birds in nocturnal migration. *Studies in Avian Biology* 19:219-229. <http://www.oldbird.org/pubs/Grassland.pdf>.

Evans, W. R. 1994. Nocturnal flight call of Bicknell's Thrush. *Wilson Bulletin* 106:55-61.

Wind energy related contracts held:

For: Nebraska Public Power District (NPPD)

Position: Principal Investigator

Description: Acoustic monitoring of night migrating birds at a proposed wind farm, 1996-1997.

For: Wisconsin Public Service Corporation (WPSC)

Position: Principal Investigator

Description: Monitoring the species composition, altitude characteristics, and numbers of night-migrating birds for assessing the potential impact of wind turbines in Northern Wisconsin. 1999-2001. **Report available at:** http://docs.wind-watch.org/Howe_2002_wind-turbines-birds-bats-ne-wisc.pdf

For: Clipper Windpower, LLC

Position: Principal Investigator

Description: Monitoring the species composition, altitude characteristics, and numbers of night-migrating birds for assessing the potential impact of wind turbines in western Maryland. 2003.

For: Ecogen, LLC

Position: Principal Investigator

Description: Acoustic monitoring the species composition, altitude characteristics, and numbers of night-migrating bird. Carried out breeding bird study and developed post-construction monitoring plan. 2004-2009.

For: Catamount Energy (acquired by Duke Energy in 2008)

Position: Principal Investigator

Description: Monitoring the species composition, altitude characteristics, and numbers of night-migrating birds for assessing the potential impact at proposed wind energy facilities in Vermont and Pennsylvania 2004-2005.

For: Research Planning, Inc. (RPI)

Position: Principle Investigator

Description: Responsible for avian datagap analysis in the United States Minerals Management Service (MMS) contract "Worldwide Synthesis and Analysis of Existing Information Regarding Environmental Effects of Alternative Energy Uses on the Outer Continental Shelf". 2006-2007.

Report available at: www.boem.gov (search for "2007-038")

For: Pattern Renewables

Position: Principal Investigator

Description: Carried out breeding bird surveys, raptor surveys, avian night flight call survey, diurnal bird movement survey, avian risk assessment, and prepared post-construction monitoring plan for the proposed Hounsfield Wind Farm on Galloo Island in northeastern Lake Ontario 2007-2012.

For: New York State Energy Research Development Authority (NYSERDA)

Position: Principle Investigator

Description: Multi-year study investigating nocturnal bird migration through the Maple Ridge Wind Energy project in northern NY. This work was subcontracted through New Jersey Audubon Society. 2007-2012.

Report available at: <http://www.nyserda.ny.gov/-/media/Files/Publications/Research/Environmental/Avian-Acoustic-Monitoring-Study-Maple-Ridge.pdf>

For: Black Oak Wind Farm LLC

Position: Principal Investigator

Description: Multi-year study carrying out raptor migration study, breeding bird survey, diurnal bird movement study, avian risk assessment, post-construction monitoring plan. 2010-2012.

For: Hudson Energy Development

Position: Principal Investigator

Description: Study carrying out breeding bird survey, diurnal bird movement study, and avian risk assessment at the proposed Galloo Island Wind Project in northern NY. 2015.

Wind energy related consultation:

For: State of Vermont

Wind project: Proposed wind farm on Little Equinox Mountain, VT

Description: Prepared an assessment of the potential hazard to migrant birds.

For: Ripley Hawk Watch

Wind project: proposed Chautauqua Wind Energy Project (near Ripley, NY)

Description: Critically reviewed Draft Environmental Impact statements.

For: Alliance to Protect Nantucket Sound

Wind project: proposed Cape Wind Farm (Nantucket Sound)

Description: Critically reviewed Draft and Final Environmental Impact statements.

For: Wolfe Island Residents for the Environment

Wind Project: Wolfe Island Wind Project, Wolfe Island, ON

Description: Critically reviewed Draft and Final Environmental Impact statements.

For: Wind Power Ethics Group

Wind Project: St. Lawrence Wind Farm (near Cape Vincent, NY)

Description: Critically reviewed Draft and Final Environmental Impact Statement

Recent accepted invitations to speak at academic conferences

Ecological Society of America. Pittsburgh, PA 2010. Session titled: [Citizen Science to Remote Sensing: Emerging Programs and Methods for Establishing Broad-Scale Phenological Monitoring](#)

Acoustical Society of America. San Francisco, CA 2013. Session titled: Biological contributions to the Soundscape II.

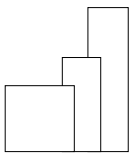
Current position

For: Old Bird Inc.

Position: Executive Director (since 2000)

Description: A 501(c)3 nonprofit corporation dedicated to facilitating acoustic monitoring of avian night flight calls. Current focus is developing a continent-wide avian nocturnal flight call monitoring network for research and education. www.oldbird.org

Contact Info: William R. Evans Old Bird Inc. PO Box 45 Ithaca, NY 14851 USA
admin@oldbird.org



PROFESSIONAL BIOGRAPHY

MICHAEL S. MCCANN, CRA

Michael S. McCann has been exclusively engaged in the real estate appraisal profession since 1980, and is the owner of McCann Appraisal, LLC.

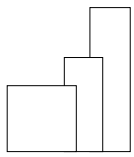
EXPERIENCE

His appraisal experience has included market value appraisals of various types of commercial, office, residential, retail, industrial and vacant property, along with a wide variety of unique or special purpose real estate, such as limestone quarries, hotels, contaminated properties, etc. He has gained a wide variety of experience in real estate zoning evaluations and property value impact studies, including analysis of utility scale wind turbine generating facilities, gas-fired electric generating plants, shopping centers, industrial facilities, limestone quarries, sanitary landfills and transfer station waste disposal facilities. He has been retained as an independent consultant to municipalities, government agencies, corporations, attorneys, developers lending institutions and private owners, and has spoken at seminars for the Appraisal Institute, the Illinois State Bar Association and Lorman Education Services on topics including the vacation of public right of ways (1986), and Property Taxation in the New Millennium (2000), Zoning and Land Use in Illinois (2005, 2006).

In addition to evaluation of eminent domain real estate acquisitions for a wide variety of property owners & condemning authorities, Mr. McCann has served as a Condemnation Commissioner (2000-2002) appointed by the United States District Court - Northern District, for the purpose of determining just compensation to property owners, under a federal condemnation matter for a natural gas pipeline project in Will County, Illinois.

EXPERT TESTIMONY

Assignments include appraisals, studies and consultation regarding real estate located in 21 states. He has qualified and testified as an expert witness in Federal Court, and for condemnation, property tax appeal and zoning matters in the Counties of Cook, Will, Boone, Lake, Madison, St. Clair, Iroquois, Fulton, McHenry, Ogle & Kendall Circuit Courts, as well as the Chicago and Cook County Zoning Boards of Appeal, the Property Tax Appeal Board (PTAB) and tax court & Commissions of Illinois, Wisconsin, and Ohio, Circuit Courts in New Jersey and Indiana, as well as zoning, planning, and land use and County Boards in Texas, Missouri, Idaho, Michigan, New Mexico and various metropolitan Chicago area locales. He has also been certified as an expert on the Uniform Standards of Professional Appraisal Practice (USPAP) by the Cook County, Illinois Circuit Court. Mr. McCann has substantial experience in large-scale condemnation and acquisition projects and project coordination at the request of various governmental agencies and departments. These include appraisals for land acquisition projects such as the Chicago White Sox Stadium project, the Southwest Transit (Orange Line) CTA rail extension to Chicago's Midway Airport, the United Center Stadium for the Chicago Bulls and Blackhawks, the minor league baseball league, Silver Cross Field stadium in Joliet, Illinois, as well as many other urban renewal, acquisition and neighborhood revitalization projects.



McCann Appraisal, LLC

REAL ESTATE EDUCATION

Specialized appraisal education includes successful completion of Real Estate Appraisal Principles, Appraisal Procedures, Residential Valuation, Capitalization Theory and Techniques Part A, Standards of Professional Practice Parts A, B and C, Case Studies in Real Estate Valuation, Highest and Best Use and Market Analysis, Advanced Income Capitalization, Subdivision Analysis and Special Purpose Properties, Eminent Domain and Condemnation, and Valuation of Detrimental Conditions in Real Estate offered by the Appraisal Institute. In addition, he has completed the Society of Real Estate Appraisers' Marketability and Market Analysis course, the Executive Enterprises - Environmental Regulation course, and a variety of continuing education real estate seminars.

DESIGNATIONS & PROFESSIONAL AFFILIATIONS

Mr. McCann is a State Certified Associate Member of the Appraisal Institute, and the National Association of Review Appraisers & Mortgage Underwriters designated him as a Certified Review Appraiser (CRA). He was elected in 2003 as a member of Lambda Alpha International, an honorary land economics society, and he served several years as a member of the Appraiser's Council of the Chicago Board of Realtors.

LICENSES

State Certified General Real Estate Appraiser in the State of Illinois (License No. 533.001252) and is current with all continuing education requirements.

Curriculum Vitae
Jerry L. Punch, Ph.D.
January 2016

Professor Emeritus, Department of Communicative Sciences and Disorders
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517-353-8656 (office)
517-353-8780 (department)
517-881-0852 (mobile)
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EDUCATIONAL BACKGROUND

- A.A. – 1963 Gardner-Webb College (now Gardner-Webb University)
Boiling Springs, NC USA
- B.A. – 1965 Wake Forest College (now Wake Forest University)
Winston-Salem, NC USA
Major: Psychology
- M.S. – 1967 Vanderbilt University
Nashville, TN USA
Major: Audiology and Speech Pathology
Master's Thesis: An investigation of the speech
discrimination ability of elderly adults
Thesis Advisor: Freeman McConnell, Ph.D.
- Ph.D. – 1972 Northwestern University
Evanston, IL USA
Major: Audiology
Doctoral Dissertation: Forward masking under
homophasic, antiphasic and other listening conditions
Advisor: Raymond Carhart, Ph.D.

PROFESSIONAL BACKGROUND

TRAINEE AND STUDENT POSITIONS

Audiology Trainee, Veterans Administration, Winston-Salem, NC, June-August 1965
Clinical Audiologist and Supervisor, Bill Wilkerson Hearing and Speech Center, Nashville, TN,
February 1967-June 1968

Experience in salaried, part-time positions as ASHA-certified audiologist while a doctoral student/candidate; work settings included Chicago Hearing Society, Veterans Administration Research Hospital, Schwab Rehabilitation Hospital, and ENT practice of Dr. George Sisson, Chicago, IL, Fall 1968-Summer 1971

PROFESSIONAL POSITIONS

Assistant Professor of Audiology, University of Mississippi, Oxford, MS, September 1971-July 1973

Assistant Professor, Memphis State University (now University of Memphis), Memphis, TN, August 1973-April 1975

Research Associate, Biocommunications Laboratory, Department of Hearing and Speech Sciences, University of Maryland, College Park, MD, May 1975-June 1980

Project Director, American Speech-Language-Hearing Association, Rockville, MD, July 1980-June 1981

Director, Research Division, American Speech-Language-Hearing Association, Rockville, MD, July 1980-July 1984

Associate Professor and Chief, Audiology Section, Department of Otolaryngology-Head and Neck Surgery, Indiana University School of Medicine, Indianapolis, IN, July 1984-October 1987

Senior Research Audiologist, Audio-Diagnostics Division, Nicolet Instrument Corporation, Madison, WI, October 1987-December 1989

Associate Professor (tenured), Department of Audiology and Speech Sciences, Michigan State University, East Lansing, MI, January 1990-August 1994

Professor, Chair, and Clinic Director, Department of Audiology and Speech Sciences, Michigan State University, East Lansing, MI, August 1994-May 2000

Professor, Department of Audiology and Speech Sciences (renamed Department of Communicative Sciences and Disorders), Michigan State University, East Lansing, MI, June 2000-May 2011

Professor Emeritus, Department of Communicative Sciences and Disorders), Michigan State University, East Lansing, MI, June 2011-present

ACADEMIC COURSES TAUGHT (in alphabetical order)

Anatomy and Physiology of Hearing

Anatomy and Physiology of Speech and Hearing Mechanisms

Aural Rehabilitation

Clinical Audiometry/Hearing Assessment/Evaluation Procedures in Audiology (course and lab instruction)

Differential Diagnostic Audiology

Evaluation Procedures in Audiology (also with associated lab)

Hearing Aids/Hearing Amplification and Rehabilitation/Hearing Amplification I & II

Hearing Disorders

Industrial Audiology/Hearing Conservation

Introduction to Audiology

Introduction to Speech and Hearing
Medical Aspects of Audiology
Microcomputer Applications in Audiology and Speech Sciences
Pediatric Audiology/Special Populations in Audiology
Professional Ethics in Communicative Sciences and Disorders
Psychoacoustics
Research Design and Analysis/Research Methods/Research Methods in Communicative Sciences and Disorders
Seminar for Honors Undergraduates: Investigating Hearing Health Risks in the MP3 Generation

PUBLICATIONS

REFEREED ARTICLES

- Allen, J. et al. (Vanderbilt Hereditary Deafness Study Group) (1968). Dominantly inherited low-frequency hearing loss. *Archives of Otolaryngology*, 88, 242-250.
- Punch, J.L., & McConnell, F. (1969). The speech discrimination function of elderly adults. *Journal of Auditory Research*, 9, 159-166.
- Wilson, R.H., & Punch, J.L. (1971). Masked spondee thresholds: Variable duty cycle and mask intensity. *Journal of Auditory Research*, 11, 270-275.
- Punch, J., & Carhart, R. (1973). Influence of interaural phase on forward masking. *Journal of the Acoustical Society of America*, 54, 897-904.
- Punch, J.L., & Lawrence, W.F. (1977). Decibel notation with correlated and uncorrelated signals. *Journal of the American Audiology Society*, 3, 71-79.
- Punch, J.L. (1978). Quality judgments of hearing aid-processed speech and music by normal and otopathologic listeners. *Journal of the American Audiology Society*, 3, 179-188.
- Punch, J.L., Lawrence, W.F., & Causey, G.D. (1978). Measurement of attack-release times in compression hearing aids. *Journal of Speech and Hearing Research*, 21, 338-349.
- Punch, J.L. (1978). Masking of spondees by interrupted noise in hearing-impaired listeners. *Journal of the American Audiology Society*, 3, 245-252.
- Punch, J.L., & Howard, M.T. (1978). Listener-assessed intelligibility of hearing aid-processed speech. *Journal of the American Audiology Society*, 4, 69-76 (1978).
- Punch, J.L., & Beck, E.L. (1980). Low-frequency response of hearing aids and judgments of aided speech quality. *Journal of Speech and Hearing Disorders*, 45, 325-335.
- Punch, J.L., Montgomery, A.A., Schwartz, D.M., Walden, B.E., Prosek, R.A., & Howard, M.T. (1980). Multidimensional scaling of quality judgments of speech signals processed by hearing aids. *Journal of the Acoustical Society of America*, 68, 458-466.
- Punch, J.L., & Parker, C.A. (1981). Pairwise listener preferences in hearing aid evaluation. *Journal of Speech and Hearing Research*, 24, 366-374.
- Montgomery, A.A., Schwartz, D.M., & Punch, J.L. (1982). Tournament strategies in hearing aid selection. *Journal of Speech and Hearing Disorders*, 47, 363-372.
- Punch, J.L., & Howard, M.T. (1985). Spondee recognition threshold as a function of set size. *Journal of Speech and Hearing Disorders*, 50, 120-125.
- Punch, J.L., & Beck, L.B. (1986). Relative effects of low-frequency amplification on syllable recognition and speech quality. *Ear and Hearing*, 7, 57-62.

- Miyamoto, R.T., McConkey, A.J., Myres, W., Pope, M., & Punch, J.L. (1986). Long-term intracochlear implantation in man. *Otolaryngology-Head and Neck Surgery*, 95, 63-70.
- Pope, M.L., Miyamoto, R.T., Myres, W.A., McConkey, A.J., & Punch, J.L. (1986). Cochlear implant candidate selection. *Ear and Hearing*, 7, 71-73.
- Punch, J.L., Robbins, A.M., Myres, W., Pope, M.L., & Miyamoto, R.T. (1987). Relationships among selected measures of single-channel cochlear implant performance. *Ear and Hearing*, 8, 37-43.
- Punch, J.L. (1987). Matching commercial hearing aids to prescriptive gain and maximum output requirements. *Journal of Speech and Hearing Disorders*, 52, 76-83.
- Miyamoto, R.T., Myres, W.A., Wagner, M.L., & Punch, J.L. (1987). Vibrotactile devices as sensory aids for the deaf. *Otolaryngology-Head and Neck Surgery*, 97, 57-63.
- Hecox, K.E., & Punch, J.L. (1988). The impact of digital technology on the selection and fitting of hearing aids. *American Journal of Otology* (Supplement), 9, 77-85.
- Punch, J.L. (1988). CROS revisited. *Asha*, 35-37.
- Punch, J., Chi, C., & Allan, J. (1990). Signal averaging in real ear probe tube measurements. *Ear and Hearing*, 11, 327-331.
- Punch, J.L., Jenison, R.L., Allan, J., & Durrant, J.D. (1991). Evaluation of three strategies for fitting hearing aids binaurally. *Ear and Hearing*, 12, 205-215.
- Punch, J.L., & Robb, R. (1992). Prescriptive hearing aid fitting by parameter adjustment and selection. *Journal of the American Academy of Audiology*, 3, 94-100.
- Punch, J., & Rakerd, B. (1993). Loudness matching of signals spectrally shaped by a simulated hearing aid. *Journal of Speech and Hearing Research*, 36, 357-364.
- Punch, J.L., & Jarrett, A.M. (1994). Hearing aid licensing statutes and the audiologist. *American Journal of Audiology*, 3, 43-54.
- Punch, J.L., Robb, R., & Shovels, A.H. (1994). Aided listener preferences in laboratory versus real-world environments. *Ear and Hearing*, 15, 50-61.
- Punch, J.L., Shovels, A.H., Dickinson, W.W., Butcher, J., & Snead, C. (1995). Target-matched insertion gain derived from three different hearing aid selection procedures. *Journal of the American Academy of Audiology*, 6, 425-432.
- Punch, J.L., Robinson, D.O., & Katt, D.F. (1996). Development of a hearing performance standard for law enforcement officers. *Journal of the American Academy of Audiology*, 7, 113-119.
- Arsenault, M.D., & Punch, J.L. (1999). Nonsense-syllable recognition in noise using monaural and binaural listening strategies. *Journal of the Acoustical Society of America*, 105, 1821-1830.
- Rakerd, B., Punch, J., Hooks, W., Amlani, A., & VandeVelde, T.J. (1999). Loudness discrimination of speech signals spectrally shaped by a simulated hearing aid. *Journal of Speech, Language, and Hearing Research*, 42, 1285-1294.
- Punch, J.L., Rakerd, B., & Amlani, A. (2001). Paired-comparison hearing aid preferences: Evaluation of an unforced-choice paradigm. *Journal of the American Academy of Audiology*, 12, 190-201.
- Punch, J.L. (2001). Contemporary issues in hearing aid selection and fitting. *Speech and Hearing Review*, 2, 21-50 (Chinese version); 166-191 (English version) (by invitation).
- Punch, J. (2003). A universal hearing aid: Recommended technologic and functional features. *Iranian Audiology*, 2(1), 24-31. (Invited paper).

- Punch, J., Joseph, A., & Rakerd, B. (2004). Most comfortable and uncomfortable loudness levels: Six decades of research. *American Journal of Audiology, 13*, 144-157.
- Punch, J., Rakerd, B., & Joseph, A. (2004). Effects of test order on most comfortable and uncomfortable loudness levels for speech. *American Journal of Audiology, 13*, 158-163.
- Holcomb, S.S., & Punch, J. L. (2006). Multimedia Hearing Handicap Inventory: Test-retest reliability and clinical utility. *American Journal of Audiology, 15*, 3-13.
- Amlani, A., Rakerd, B., & Punch, J. (2006). Speech-clarity judgments of hearing-aid-processed speech in noise: Differing polar patterns and acoustic environments, *International Journal of Audiology, 45*, 319-330.
- Joseph, A., Punch, J., Stephenson, M., Paneth, N., Wolfe, E., & Murphy, W. (2007). The effects of training format on earplug performance. *International Journal of Audiology, 46*, 609-618.
- Callaway, S.L., & Punch, J.L. (2008). An electroacoustic analysis of over-the-counter hearing aids, *American Journal of Audiology, 17*, 14-24.
- Punch, J., Elfenbein, J., & James, R. (2011). Targeting hearing health messages for users of personal listening devices. *American Journal of Audiology, 20*, 69-82.

NON-REFEREED ARTICLES

- Causey, G.D., Punch, J.L., Schweitzer, H.C., & Beck, L.B. (Spring 1978). The clinical and acoustic parameters of hearing aid effectiveness. *Bulletin of Prosthetics Research*.
- Causey, G.D., Punch, J.L., Schweitzer, H.C., & Beck, L.B. (Spring 1979). The clinical and acoustic parameters of hearing aid effectiveness. *Bulletin of Prosthetics Research*.
- Causey, G.D., Punch, J.L., & Schweitzer, H.C. (Fall 1979). The development of improved techniques for the analysis of hearing aid performance. *Bulletin of Prosthetics Research*.
- Causey, G.D., & Punch, J.L. (Spring 1980). The clinical and acoustic parameters of hearing aid effectiveness. *Bulletin of Prosthetics Research*.
- Punch, J.L. (1980). Self-study of profession's service and training needs in the 1980's. *Asha, 22*, 849-850.
- Punch, J.L. (1981). Subjective approaches to hearing aid evaluation. *Hearing Instruments, 32*, 12-14, 65 (Invited paper).
- Rees, N.S., Punch, J.L., & Snope, T.L. (1981). Report of Advisory Committee for the self-study project. *Asha, 23*, 899-902.
- Punch, J.L., & Gelatt, J.P. (1982). Federal funding agencies and speech-language-hearing. *Asha, 24*, 325-331.
- Punch, J. (1983). Characteristics of ASHA members. *Asha, 25*, 31.
- Punch, J. (1983). The prevalence of hearing impairment. *Asha, 25*, 27.
- Punch, J. (1983). The geographic distribution of speech-language-hearing personnel. *Asha, 25*, 31.
- Punch, J. (1983). Sociodemographic and health characteristics of the hearing-impaired population. *Asha, 25*, 15.
- Punch, J. (1983). Occupational mobility of speech-language pathologists and audiologists: Part I. *Asha, 25*, 31.
- Punch, J.L., & Fein, D.J. (1984). Profile of educational programs in speech-language pathology and audiology. *Asha, 26*, 43-48.

- Karr, S., & Punch, J. (1984). PL 94-142 state child counts. *Asha*, 26, 33.
- Punch, J. (1984). Occupational mobility of speech-language pathologists and audiologists: Part II. *Asha*, 26, 29.
- Punch, J.L. (1984). Salaries in the speech-language pathology and audiology profession. *Asha*, 26, 41-46.
- Mansour, S., & Punch, J. (1984). Research activity among ASHA members. *Asha*, 26, 41.
- Miyamoto, R.T., Myres, W.A., & Punch, J.L. (1987). Tactile aids in the evaluation procedure for cochlear implant candidacy. *Hearing Instruments*, 38, 33, 36-37.
- Miyamoto, R.T., Myres, W.A., Carotta, C.C., Robbins, A.M., Pope, M.L., Punch, J.L., & Steck, J. (November 1987). Cochlear implants in children. *Insights in Otolaryngology*, 2.
- Williamson, M., & Punch, J. (1990). Speech enhancement in digital hearing aids. *Seminars in Hearing*, 11, 68-78.
- Punch, J., Chi, C., & Patterson, J. (1990). A recommended protocol for prescriptive use of target gain rules. *Hearing Instruments*, 41, 12, 14, 16, 18-19.
- Punch, J., Birman, M., & Balmer, W. (1990). Comparative evaluation of substitution and equivalent substitution methods of hearing aid analysis. *The Hearing Journal*, 43, 28-29, 32-33.
- Punch, J.L., & Weinstein, B.E. (1996). The Hearing Handicap Inventory: Introducing a multimedia version. *The Hearing Journal*, 49(10), 35-36, 38-40, 44-45.
- Punch, J.L. (2001). Technologic and functional features of hearing aids: What are their relative costs? *The Hearing Journal*, 54(6), 32, 34, 36-38, 42, 44.
- Punch, J. (2001). Committee Report: A low-cost hearing aid for developing countries. *Hearing International*, 10(3), 4-5.
- Punch, J. (2002). The differences between analog and digital hearing aids. *Hearing International*, 10(4), 4-5 (Part I); *Hearing International*, 11(1), 8 (Part II).
- Punch, J. (2002). Technology Note: Linear vs nonlinear hearing aids. *Hearing International*, 11(2), 8.
- Punch, J. (2002). Technology Note: Output-limiting vs wide dynamic range compression. *Hearing International*, 11(3), 8.
- Punch, J. (2002). Technology Note: Acoustic modifications in hearing aids. *Hearing International*, 11(4), 7.
- Punch, J. (2002). Viewpoint: The virtues of virtual learning. *Audiology Today*, 14(5), 18.
- Punch, J. (2003). Survey of hearing aid manufacturers. *Hearing International*, 12(1), 7-8.
- Punch, J. (2003). Technology Note: Hearing aids and the audibility index. *Hearing International*, 12(2), 8-9.
- Punch, J. (2003). Technology Note: Assistive listening devices. *Hearing International*, 12(3), 7-8.
- Punch, J. (2004). Technology Note: Understanding hearing aid standards organizations. *Audiology Today*, 16(4), 15.
- Punch, J. (2005). Providing high-quality, low-cost hearing aids for developing countries. *Hearing International*, 14(3), 5.
- Punch, J. (2006). Providing high-quality, low-cost hearing aids for developing countries: A status report 2. *Hearing International*, 14(4), 4-5.
- Punch, J., James, R., & Pabst, D. (2010). Wind-turbine noise: What audiologists should know. *Audiology Today*, 22(4), 20-31.

Punch, J. & James, R. (2014). Adverse health effects of noise from industrial wind turbines. HearingHealthMatters.org, Three-part series in Hearing Health & Technology Matters.

MONOGRAPHS

Amlani, A.M., Punch, J.L., & Ching, Y.C. (2002). Methods and applications of the audibility index in hearing aid selection and fitting. *Trends in Amplification*, 6, 81-129.

BOOK CHAPTERS

Punch, J. (2004). High-quality, low-cost hearing aids. In *Hearing Impairment: An Invisible Disability*. Suzuki, J, Kobayashi, T, & Koga, K. (Eds). New York: Springer-Verlag.

Punch, J. (2004). Hearing International project on high-quality, low-cost hearing aids. In *Hearing Impairment: An Invisible Disability*. Suzuki, J, Kobayashi, T, & Koga, K. (Eds). New York: Springer-Verlag.

MANUSCRIPTS UNDER REVIEW OR IN PREPARATION

Punch, J. & James, R. R. (2015). Wind turbine noise and human health: a four-decade history of evidence that wind turbines pose risks (under review).

PRESENTATIONS

INVITED PRESENTATIONS

INTERNATIONAL LEVEL

Punch, J.L. (March 31, 2001). An analysis of hearing aid costs. Invited presentation at meeting of Committee on Management and Rehabilitation of Hearing Loss, Hearing International, Singapore.

Punch, J (January 31, 2002). Challenges of developing and distributing a low-cost hearing aid. Invited paper, written by J. Punch and presented by Jun-Ichi Suzuki (J.I. Suzuki & J. Punch: View from the HI Rehabilitation Committee), Hearing International, Pattaya, Thailand.

NATIONAL LEVEL

Punch, J. (December 1-2, 1976). Elements of hearing aid performance and aural rehabilitation. Invited workshop participant, Little Rock, AR.

Punch, J. (March 17-19, 1983). Hearing aid selection: Listener judgments of speech quality and intelligibility. Invited participant at Three Rivers Conference on Communicative Disorders, Pittsburgh, PA.

Punch, J. (April 15-16, 1988). Introduction to digital signal processing concepts and terminology, and Summary: Project Phoenix approach in developing and evaluating the

- performance of a digital hearing aid. Invited speaker at convention of Iowa Hearing Aid Society, Des Moines, IA.
- Punch, J. (October 1, 1988). Recent advances in digital hearing aids. Invited speaker at program sponsored by George Washington University Medical Center and George Washington University, Washington, DC.
- Punch, J. (May 20, 1989). Comparing and contrasting digital hearing aid systems. Invited participant in panel discussion at meeting of Academy of Dispensing Audiologists, Phoenix, AZ.
- Punch, J. (June 16, 1989). Digital hearing aids. Invited speaker at Amplification '89 Conference, Central Michigan University, Mt. Pleasant, MI.
- Punch, J. (October 26-27, 1990). How can digital hearing aids benefit the hearing impaired? Invited presentation, Iowa Hearing Aid Society, Des Moines, IA.
- Punch, J. (March 12-13, 1993). DSP-based hearing aid fitting procedures. Invited presentation at Technology Summit: Sound Advice on Amplification, Starkey Laboratories, Brookland Park, MN.
- Bentler, R.A., Fortune, T., Humes, L.E., McCarthy, P, Punch, J., & Van Vliet, D. (November 1994). Hearing aid fittings: A time for change. Invited miniseminar presentation to convention of American Speech-Language-Hearing Association, New Orleans, LA.
- Punch, J. (March 22-25, 1995). A hearing performance standard for police officers. Invited panel presentation at Hearing Conservation Conference III/XX, as part of Forum "The Americans with Disabilities Act: Recruiting, Retaining, and Protecting Workers with Hearing Impairment," Cincinnati, OH.
- Punch, J. (December 7, 2002). Contemporary issues in hearing aid fittings. Invited presentation to Palm Springs Hearing Seminars, Palm Springs, CA.

REGIONAL/STATE/LOCAL LEVEL

- Punch, J. (April 26, 1980). Hearing aid evaluation: Development of alternative strategies. Invited participant at meeting of Maryland Speech-Language-Hearing Association, Annapolis, MD.
- Punch, J. (January 22, 1987). Cochlear implants: Case studies. Invited speaker at Indiana University Faculty Colloquium, Bloomington, IN.
- Punch, J. (April 14, 1988). Digital hearing aids. Invited speaker at convention of Indiana Speech and Hearing Association, Ft. Wayne, IN.
- Punch, J. (April 29, 1988). Development and evaluation of a digital hearing aid. Invited speaker at convention of Speech and Hearing Association of Alabama, Orange Beach.
- Punch, J. (July 21, 1988). Signal processing and digital programmable hearing aids. Invited speaker at meeting of Texas Speech and Hearing Association, Vail, CO.
- Punch, J. (September 7, 1988). Digital hearing aids. Invited speaker at meeting of audiology staff of Jewish Hospital and Washington University School of Medicine, St. Louis, MO.
- Punch, J. (September 23, 1988). Digital signal processing. Invited speaker at Cleveland Hearing and Speech Center, Cleveland, Ohio.
- Punch, J. (November 14, 1988). Use of real ear data in hearing aid fitting. Invited speaker at Real Ear Workshop for Aurora Users, Madison, WI.

- Punch, J. (March 10, 1989). Integrating digital hearing aids into clinical practice. Invited speaker at meeting of Kentucky Speech and Hearing Association, Lexington, KY.
- Punch, J. (March 31, 1989). Digital hearing aids. Invited speaker at meeting of Texas Speech and Hearing Association, El Paso, TX.
- Punch, J. (October 26-27, 1990). Software approaches to prescriptive hearing aid fitting. Invited presentation, Iowa Hearing Aid Society, Des Moines, IA.
- Punch, J.L. (June 10-12, 1991). Sound, psychophysics, and audition, and federal and state regulations. Two CAOHC training presentations, Buick-Oldsmobile-Cadillac Plant, Lansing, MI.
- Punch, J. (September 1991). CCC examination review lectures (2), Sponsored by Michigan Speech-Language Hearing Association, Michigan State University.
- Punch, J. (March 12, 1992). Characteristics of well-fitted hearing aids, recent developments in hearing aids, and hearing aid troubleshooting. Invited presentation to Jackson, MI, chapter of Self-Help for the Hard-of-Hearing (SHHH).
- Punch, J.L. (May 2, 1993). Hearing loss and hearing aids. Invited presentation to Michigan Department of Social Services, Lansing, MI.
- Punch, J.L. (July 24, 1993). Roundtable facilitator at Committee on Institutional Cooperation (CIC) Summer Research Opportunities Program (SROP) Conference, Michigan State University.
- Punch, J. (September 18, 1993). CCC examination review lecture, Sponsored by Michigan Speech-Language-Hearing Association, Michigan State University.
- Punch, J. (August 8, 1994). Current audiological research in the U.S. Invited presentation to international visitors (London) to Michigan State University.
- Punch, J. (September 16, 1995). CCC examination review lecture, Sponsored by Michigan Speech-Language-Hearing Association, Michigan State University.
- Punch, J. (March 19, 1999). Student forum. Presented at convention of Michigan Speech-Language-Hearing Association, Troy, MI.
- Punch, J. (June 13, 2000). What about my hearing? Invited presentation at meeting of University Club members, Lunch and Learn Series, Michigan State University, East Lansing, MI.
- Punch, J. (October 23-24, 2000). Current practices in hearing aid selection and fitting, Invited presentation at meeting of Hearing International, East Lansing, MI.
- Punch, J. (October 24, 2001). Hearing loss and hearing aids. Invited presentation at Valley Court Community Center, East Lansing, MI.
- Punch, J. (September 17, 2002). Making the most of your hearing aids. Invited presentation at Foster Community Center. Sponsored by Self Help for the Hard of Hearing, Lansing, MI.
- Punch, J. (September 9, 2003). What did you say? Invited presentation at meeting of University Club members, Lunch and Learn Series, Michigan State University, East Lansing, MI.
- Punch, J. (March 13, 2004). Advances in hearing aids. Invited presentation at convention of Ohio Speech-Language-Hearing Association, Columbus, OH.
- Punch, J. (July 1, 2004). Hearing loss and hearing aids. Invited presentation at Hanna Community Center, East Lansing, MI.
- Punch, J. (October 10, 2006). Hearing conservation. Invited presentation at Department of Music, Michigan State University, East Lansing, MI.
- Punch, J. (June 8, 2007). Technological features of modern hearing aids. Invited presentation at 2007 Golden Grads Alumni Breakfast, Michigan State University, East Lansing, MI.

- Punch, J. (August 22, 2008). Hearing, hearing loss, and the audiogram. Invited presentation at Michigan Association of Disability Examiners, Lansing Community College West Campus, Lansing, MI.
- Punch, J. (October 21, 2008). Hearing Loss and Over-the-Counter Hearing Aids. Invited presentation at Michigan State University Colloquy, University Club, East Lansing, MI.
- Punch, J. (November 10, 2008). Hearing Loss and Hearing Aids. Invited presentation at Foster Community Center, Sponsored by Lansing-Area Chapter of Hearing Loss Association of America (HLAA), Lansing, MI.
- Punch, J. (March 15, 2010). Invited presentation on variety of personal and professional topics, Sponsored by American Sign Language (ASL) class, Lansing Community College, Arts and Sciences Building, Lansing, MI.
- Punch, J. (October 21, 2010). Hearing protection issues. Invited presentation at meeting of Michigan Agricultural Aviation Association, Lansing, MI.
- Punch, J. (March 10, 2011). Wind Turbine Information and Issues Forum. Invited presentation at West Shore Community College, Ludington, MI (Mason County), hosted by Great Lakes Renewable Energy Association (GLREA), A Few Friends for the Environment of the World (AFFEW), and West Shore Community College.
- Punch, J. L. (June 14, 2011). Does wind turbine noise cause adverse health effects? Invited presentation to Zoning Commission, Riga Township, Palmyra, MI (Lenawee County).

SUBMITTED PRESENTATIONS

INTERNATIONAL LEVEL

- Punch, J.L. (November 1982). Computer-based information services for ASHA members. The computer and speech and hearing services: Administrative applications. Miniseminar presented at convention of American Speech-Language-Hearing Association, Toronto, Canada.
- Punch, J.L. (June 24-27, 1993). Aided listener preferences in laboratory vs. real-world environments. Paper presented at International Hearing Aid Conference II: Signal Processing, Fitting, and Efficacy, University of Iowa, IA.

NATIONAL LEVEL

- Stream, R.W., et al. (1968). Hereditary low frequency hearing loss. Paper presented at convention of American Speech and Hearing Association, Denver, CO.
- Punch, J.L., & D'Agostino, A. (1972). Influence of word number on spondee threshold in normal listeners. Paper presented at convention of American Speech and Hearing Association, San Francisco, CA.
- Punch, J.L., & Rushing, C. (November 1974). Effect of poor-ear occlusion on sound field speech discrimination scores. Paper presented at convention of American Speech and Hearing Association, Las Vegas, NV.
- Punch, J.L., & Page, J. (November 1974). Evaluation of the efficiency of three hearing screening measures. Paper presented at convention of American Speech and Hearing Association, Las Vegas, NV.

- Punch, J.L., & Studebaker, G.A. (November 1975). Comparison of hearing aid and hearing aid-processed frequency response in ear canals. Paper presented at convention of American Speech and Hearing Association, Washington, DC.
- Punch, J.L. (1976). Evaluation of the Zwislocki coupler and KEMAR for use in hearing aid processing. Paper presented at 91st Meeting of Acoustical Society of America, Washington, DC.
- Punch, J.L., & Lawrence, W.F. (November 1976). Procedural considerations in the measurement of attack-release times. Paper presented at convention of American Speech and Hearing Association, Houston, TX.
- Punch, J.L., & Ciechanowski, J.M. (November 1977). Reliability of paired-comparison quality judgments in hearing aid evaluation. Paper presented at convention of American Speech and Hearing Association, Chicago, IL.
- Punch, J.L., & Howard, M.T. (1977). Listener-assessed intelligibility of hearing aid-processed speech. Paper presented at 94th Meeting of Acoustical Society of America, Miami Beach, FL.
- Punch, J.L., Montgomery, A.A., & Howard, M.T. (November 1978). Relationships between hearing aid electroacoustic characteristics and speech quality judgments. Paper presented at convention of American Speech and Hearing Association, San Francisco, CA.
- Punch, J.L., Talkin, D.T., & Lawrence, W.F. (November 1978). Measurement and analysis of hearing aid impulse response. Paper presented at convention of American Speech and Hearing Association, San Francisco, CA.
- Punch, J.L., & Parker, C.A. (November 1979). Validity of paired-comparison listener preferences in hearing aid evaluation. Paper presented at convention of American Speech-Language-Hearing Association, Atlanta, GA.
- Punch, J.L., & Beck, E.L. (November 1979). Aided speech quality judgments: Effect of varying low-cutoff frequency. Paper presented at convention of American Speech-Language-Hearing Association, Atlanta, GA.
- Howard, M.T., & Punch, J.L. (November 1980). Spondee threshold as a function of word number. Poster presented at convention of American Speech-Language-Hearing Association, Detroit, MI.
- Beck, L.B., Leatherwood, R.W., & Punch, J.L. (November 1980). Aided low-frequency response: Speech quality and speech intelligibility. Paper presented at convention of American Speech-Language-Hearing Association, Detroit, MI.
- Punch, J.L., Levitt, H., Mahaffey, R.B., & Wilson, M.S. (November 1983). Computer technology: The revolution has started without us. Miniseminar presented at convention of American Speech-Language-Hearing Association, Cincinnati, OH.
- Miyamoto, R.T., McConkey, A.J., Myres, W., Pope, M., & Punch, J.L. (May 1985). Long-term intracochlear implantation in man. Paper presented at meeting of American Neurotologic Society, Miami, FL.
- Punch, J.L., & Miyamoto, R.T. (November 1985). Supplementary use of hearing aids by cochlear implantees. Poster presented at convention of American Speech-Language-Hearing Association, Washington, DC.
- Punch, J.L., McConkey, A., Myres, W., Pope, M.A., & Miyamoto, R.T. (November 1985). Relationships among selected pre- and post-implant measures. Paper presented at convention of American Speech-Language-Hearing Association, Washington, DC.

- Punch, J.L. (November 1985). Matching commercial hearing aids to prescriptive gain and SSPL requirements. Paper presented at convention of American Speech-Language-Hearing Association, Washington, DC.
- Miyamoto, R.T., & Punch, J. (October 1986). Current issues in cochlear implantation of adults and children. Miniseminar presented at Crossroads Conference on Communicative Disorders. National Student Speech-Language-Hearing Association. Purdue University, West Lafayette, IN.
- Punch, J.L., Miyamoto, R.T., & Myres, W.A. (November 1986). Lipreading ability vs. auditory advantage with cochlear implants. Paper presented at convention of American Speech-Language-Hearing Association, Detroit, MI.
- Brown, D.B., Miyamoto, R.T., & Punch, J.L. (November 1986). Intraoperative ABR monitoring during vestibular nerve sections. Paper presented at convention of American Speech-Language-Hearing Association, Detroit, MI.
- Punch, J.L., Stone, R.E., Jr., Horii, Y., & Miyamoto, R.T. (November 1987). Oral-nasal coupling in the speech of cochlear implantees. Poster presented at convention of American Speech-Language-Hearing Association, New Orleans, LA.
- Myres, W.A., Miyamoto, R.T., & Punch, J.L. (November 1987). Auditory performance of a binaural cochlear implant recipient. Paper presented at convention of American Speech-Language-Hearing Association, New Orleans, LA.
- Punch, J., Chi, C., & Patterson, J. (November 1988). Factors affecting individualized target-gain based prescription of hearing aids. Miniseminar presented at convention of American Speech-Language-Hearing Association, Boston, MA.
- Punch, J., Allan, J., Sammeth, C., Palmer, R., Williamson, M., & Hecox, K. (November 1988). High-frequency limiting: Effects on laboratory and real-world performance. Paper presented at convention of American Speech-Language-Hearing Association, Boston, MA.
- Birman, M., Punch, J., & Balmer, W. (November 1988). Equivalent substitution method vs. a commonly used electroacoustic method. Paper presented at convention of American Speech-Language-Hearing Association, Boston, MA.
- Allan, J., Punch, J., & Chi, C. (November 1988). Signal averaging in real-ear measurements. Paper presented at convention of American Speech-Language-Hearing Association, Boston, MA.
- Chi, C., Balmer, W., Punch, J., & Williamson, M. (November 1988). Analysis of hearing aids: Complex signal vs. pure tone. Paper presented at convention of American Speech-Language-Hearing Association, Boston, MA.
- Allan, J., Punch, J., Lasky, R., & Chertoff, K. (November 1989). Effects of stimulus condition on preferred signal-processing characteristics. Paper presented at convention of American Speech-Language-Hearing Association, St. Louis, MO.
- Durrant, J., Punch, J., & Allan, J. (November 1989). Comparison of digital noise reduction algorithm vs. binaural processing. Paper presented at convention of American Speech-Language-Hearing Association, St. Louis, MO.
- Punch, J., Allan, J., & Jenison, R. (November 1989). Comparative evaluation of three binaural hearing aid fitting strategies. Paper presented at convention of American Speech-Language-Hearing Association, St. Louis, MO.

- Punch, J., Levitt, H., & Studebaker, G. (November 1989). Paired-comparison judgments in hearing aid evaluation: A status report. Miniseminar presented at convention of American Speech-Language-Hearing Association, St. Louis, MO.
- Benedict, E., Punch, J., Lasky, R., & Chi, C. (November 1989). The sliding scale: A preference based hearing aid fitting procedure. Paper presented at convention of American Speech-Language-Hearing Association, St. Louis, MO.
- Codd, M.B., Sammeth, C.A., Ochs, M.T., & Punch, J.L. (April 25-28, 1991). Effects of reduced low-frequency amplification on speech recognition thresholds and perceived sound quality in noise. Poster presented at convention of American Academy of Audiology, Denver, CO.
- Punch, J.L. (June 21-23, 1991). Prescriptive hearing aid fitting by parameter adjustment and selection. Paper presented at International Hearing Aid Conference: Signal Processing, Fitting, and Efficacy, University of Iowa, IA.
- Punch, J., & Rakerd, B. (November 1991). Loudness matching of signals in a simulated multimemory hearing aid. Paper presented at convention of American Speech-Language-Hearing Association, Atlanta, GA.
- Punch, J.L., Robinson, D. O., & Katt, D.F. (November 1992). Hearing performance standard for law enforcement officers: Aided and unaided. Poster presented at convention of American Speech-Language-Hearing Association, San Antonio, TX.
- Punch, J.L., & Robb, R. (November 1992). A DSP-based approach to clinical hearing aid research. Poster presented at convention of American Speech-Language-Hearing Association, San Antonio, TX.
- Punch, J.L., & Hooth, A.J. (November 1992). Hearing aid fitting: A validation study. Poster presented at convention of American Speech-Language-Hearing Association, San Antonio, TX.
- Punch, J., Congdon, S., Nelson-Wade, E., & O'Connor, T. (November 1992). Comparison of three clinical hearing aid fitting procedures. Poster presented at convention of American Speech-Language-Hearing Association, San Antonio, TX.
- Hamill, T., & Punch, J. (1994). Toward valid hearing aid evaluation procedures. Instructional course presented at convention of American Academy of Audiology, Richmond, VA.
- Patterson, J.P., & Punch, J. (November 1994). Launching multimedia applications: Issues in design and development. Miniseminar presented at convention of American Speech-Language-Hearing Association, New Orleans, LA.
- Punch, J., & Weinstein, B. (November 1994). Hearing handicap inventory for the elderly: A multimedia version. Miniseminar presented at convention of American Speech-Language-Hearing Association, New Orleans, LA.
- Arsenault, M., & Punch, J. (September 11-13, 1995). Speech recognition performance in noise under monaural and binaural listening conditions. Poster presented at First Biennial Conference, Hearing Aid Research and Development, National Institutes of Health, Bethesda, MD.
- Rakerd, B., Punch, J., Hooks, W., & Vander Velde, T. (November 1996). Speech loudness changes associated with a programmable hearing aid. Presented at convention of American Speech-Language-Hearing Association, Seattle, WA.
- Weinstein, B., & Punch, J. (April 2-5, 1998). www.phd.msu.edu/hearing. Presented at convention of American Academy of Audiology, Los Angeles, CA.

- Amlani, A., Punch, J., & Rakerd, B. (March 16-19, 2000). Reliability and transitivity of forced- and unforced-choice paired-comparison preferences. Student Research Forum. Presented at convention of American Academy of Audiology, Chicago, IL.
- Shogren, S., & Punch, J. (March 16-19, 2000). Test-retest reliability of the Multimedia Hearing Handicap Inventory. Student Research Forum. Presented at convention of American Academy of Audiology, Chicago, IL.
- Jarrett, A., & Punch, J. (March 16-19, 2000). Development of a Hearing Risk Inventory for Infants. Student Research Forum. Presented at convention of American Academy of Audiology, Chicago, IL.
- Amlani, A., & Punch, J. (April 4, 2003). A web-based Audibility-Index (AI) calculator. Poster presented at convention of American Academy of Audiology, San Antonio, TX.
- Amlani, A., Punch, J., & Rakerd, B. (April 5, 2003). Polar-pattern preferences in real-world environments. Presented at convention of American Academy of Audiology, San Antonio, TX.
- Joseph, A., Punch, J., & Rakerd, B. (April 5, 2003). Effects of test order & instructions on MCL-S & UCL-S. Poster presented at convention of American Academy of Audiology, San Antonio, TX.
- Punch, J. (April 5, 2003). Hearing standards for hearing-critical occupations. Roundtable presentation at convention of American Academy of Audiology, San Antonio, TX.
- Joseph, A.R., Punch, J.L., Stephenson, M.R., Paneth, N., Murphy, W.J., & Wolfe, E. (November 1, 2005). The effect of training modality on earplug attenuation and fit. Poster presented at annual meeting of Association of Medical Service Corps Officers of the Navy (AMSCON) and Association of Military Surgeons of the United States (AMSUS), Nashville, TN.
- Joseph, A., Stephenson, M., Punch, J., & Murphy, W. (February 17, 2006). The effect of training modality on earplug attenuation. Paper presented at annual conference of National Hearing Conservation Association (NHCA), Tampa, FL.
- Joseph, A.R., Punch, J.L., Stephenson, M.R., & Murphy, W.J. (February 16-18, 2006). The Sound Attenuation Fit Estimator (SAFE₅₀₀). Poster presented at annual conference of National Hearing Conservation Association (NHCA), Tampa, FL.
- Atienza, H., Bhagwan, S., Kramer, A., Morris, A., Pabst, D., Warren, A., Williams, N., Punch, J.L., & Elfenbein, J.L. (April 2-5, 2008). Preferred MP3 listening levels: Earphones and environments. Poster presented at annual conference of American Academy of Audiology, Charlotte, NC.
- Callaway, S.L. & Punch, J.L. (April 2-5, 2008). Prescriptive fitting of over-the-counter hearing aids. Poster presented at annual conference of American Academy of Audiology, Charlotte, NC.
- Punch, J.L., James, R., & Pabst, D. (November 19-21, 2009). Wind turbines: What you can't hear can hurt you. Paper presented at annual convention of American Speech-Language-Hearing Association, New Orleans, LA.
- Alkhamra, R.A., Rakerd, B., Punch, J., Zwolan, T., & Elfenbein, J. (July 24 - 29, 2011). Cognitive effort and the perception of speech by adult cochlear implant users: A survey. Poster presented at Conference on Implantable Auditory Prostheses 2011, Pacific Grove, CA.

- Rakerd, B., Alkhamra, R., Zwolan, T, Punch, J, & Elfenbein, J. (November 17-19, 2011). Cognitive effort and perception of speech by cochlear implant users. Paper presented at annual convention of American Speech-Language-Hearing Association, San Diego, CA.
- Schutte, D., Rivard, J., Dykstra Goris, E., Schmidt, S, Punch, J., & Schutte, B. (March 7-10, 2013). Examining hearing as a potential predictor of agitation in persons with dementia: feasibility of a comprehensive hearing assessment in persons with cognitive impairment, Paper to be presented at annual meeting of Midwest Nursing Research Society, Chicago, IL.
- Hitt, R., Punch, J., & Smith, S.W., Effects of hearing impairment on quality of life. (March 28-30, 2013). Poster presented at D.C. Health Communication Conference, Fairfax, VA.

REGIONAL/STATE/LOCAL LEVEL

- Miyamoto, R.T., and other members of the Cochlear Implant Team (April 17, 1986). Cochlear implants as sensory aids for deaf children. Session presented at meeting of Indiana Speech and Hearing Association, Nashville, TN.
- Robinson, D.O., Punch, J.L., & Katt, D.F. (March 1992). Michigan Law Enforcement Officers Training Council's hearing performance standard: Aided and unaided. Poster presented at Conference of Michigan Speech-Language-Hearing Association, Kalamazoo, MI.
- Punch, J.L., & Jarrett, A.M. (March 25-27, 1993). State hearing aid licensing statutes and the audiologist. Poster presented at Conference of Michigan Speech-Language-Hearing Association, Shanty Creek Resort, Bellaire, MI.
- Weinstein, B., & Punch, J. (May 2-5, 1996). A multimedia approach to marketing hearing health care services for older adults. Presented at convention of New York State Speech-Language-Hearing Association, Albany, NY.
- Punch, J., & Weinstein, B. (March 13-15, 1997). Hearing Handicap Inventory: From milk carton to multimedia. Presented at convention of Michigan Speech-Language-Hearing Association, Kalamazoo, MI.
- Artymovich, A., Frost, T, Jeong, M, Lin, F., Patel, N., & Sweet, E. (Mentors: J. L. Elfenbein & J. Punch) (April 13, 2007). Listening to music: University students' device preferences. Poster presented at University Undergraduate Research and Arts Forum, Michigan State University.
- Artymovich, A., Frost, T, Jeong, M, Lin, F., Patel, N., & Sweet, E. (Mentors: J. L. Elfenbein & J. Punch) (April 13, 2007). University students' patterns of MP3 player use: Is there hearing health risk? Poster presented at University Undergraduate Research and Arts Forum, Michigan State University.
- Atienza, H., Bhagwan, S., Kramer, A., Morris, A., Pabst, D., Warren, A., & Williams, N. (Mentors: J. Punch & J. L. Elfenbein) (March 9, 2007). Output levels of the Apple iPod® for three types of earphones. Poster presented at convention of Michigan Speech-Language-Hearing Association, Ypsilanti, MI.
- Atienza, H., Bhagwan, S., Kramer, A., Morris, A., Pabst, D., Warren, A., & Williams, N. (Mentors: J. Punch & J. L. Elfenbein) (April 13, 2007). Output levels of the Apple iPod® for three types of earphones. Poster presented at University Undergraduate Research and Arts Forum, Michigan State University.

- Atienza, H., Bhagwan, S., Kramer, A., Morris, A., Pabst, D., Warren, A., & Williams, N. (Mentors: J. Punch & J. L. Elfenbein) (April 13, 2007). Preferred listening levels of MP3 music with three types of earphones. Poster presented at University Undergraduate Research and Arts Forum, Michigan State University.
- Atienza, H., Bhagwan, S., Kramer, A., Morris, A., Pabst, D., Warren, A., & Williams, N. (Mentors: J. Punch & J. L. Elfenbein) (April 20, 2007). Output levels of the Apple iPod® for three types of earphones. Poster presented at Pediatric and Human Development Research Day, Michigan State University.
- Atienza, H., Bhagwan, S., Kramer, A., Morris, A., Pabst, D., Warren, A., & Williams, N. (Mentors: J. Punch & J. L. Elfenbein) (April 20, 2007). Preferred listening levels of MP3 music with three types of earphones. Poster presented at Pediatric and Human Development Research Day, Michigan State University.
- Punch, J. (February 7, 2014). Wind turbine noise: Can sounds we can't hear hurt us? Lecture presented at Research Colloquium, Department of Communicative Sciences and Disorders, Michigan State University.

MASTER'S THESES DIRECTED

- D'Agostino, A.D. (1972). Effect of word number on spondee threshold in normal listeners (Master's thesis, University of Mississippi, 1972).
- Guckert, S.A. (1973). The development and evaluation of a filtered speech test for use in hearing screening. (Master's thesis, University of Mississippi, 1973).
- Rushing, C. (1973). The effects of single ear occlusion on sound field speech discrimination scores (Master's thesis, University of Mississippi, 1973).
- Shogren, S. (1999). Test-retest reliability and clinical utility of the Multimedia Hearing Handicap Inventory (Master's thesis, Michigan State University, 1999).
- Callaway, S.L. (2007). How well do over-the-counter hearing aids benefit the hearing impaired? (Master's thesis, Copenhagen University, Denmark, 2007). Thesis co-adviser, Copenhagen University: Niels Reinholt Petersen, Ph.D.

Ph.D. DISSERTATIONS DIRECTED

- Amlani, A. (2003). Paired-comparison preferences for polar directivity patterns in different listening environments (Doctoral dissertation, Michigan State University, 2003).
- Joseph, A. (2004). Attenuation of passive hearing protection devices as a function of group versus individual training. (Doctoral dissertation, Michigan State University, 2004).

HONORS AND AWARDS

Fellow, American Speech-Language-Hearing Association

American Men and Women of Science

Dedicated Service Award, Michigan Law Enforcement Officers Training Council, January 1993

Editor's Award, American Auditory Society, September 1987. Relative effects of low-frequency amplification on syllable recognition and speech quality, *Ear and Hearing*, 7, 57-62 (1986), with Lucille B. Beck

Who's Who in America

The National Distinguished Service Registry: Speech, Language and Hearing

Student Research Forum Award for submission to convention of American Academy of Audiology. Sara Shogren & Jerry Punch, Test-retest reliability of the Multimedia Hearing Handicap Inventory, March 17, 2000, Chicago, IL.

Merit Recognition Award for poster presented at University Undergraduate Research and Arts Forum, Michigan State University (Authors: Atienza, H., Bhagwan, S., Kramer, A., Morris, A., Pabst, D., Warren, A., & Williams, N.; Mentors: J. Punch & J. Elfenbein), April 13, 2007. Output levels of the Apple iPod® for three types of earphones.

James Jerger Award for Excellence in Student Research for poster presented at convention of American Academy of Audiology. Susanna L. Callaway & Jerry L. Punch, Prescriptive fitting of over-the-counter hearing aids, April 2-5, 2008, Charlotte, NC.

PROFESSIONAL MEMBERSHIPS/CREDENTIALS/AFFILIATIONS

INTERNATIONAL ORGANIZATIONS

Member, Editorial Board, *Iranian Audiology*; October 2003-present.

NATIONAL ORGANIZATIONS

Member, American Speech-Language-Hearing Association (ASHA)

Certificate of Clinical Competence (CCC) in Audiology, ASHA

Member, American Auditory Society

Fellow, American Academy of Audiology

Member, Acoustical Society of America, 1976-1991; 2000-present

STATE ORGANIZATIONS

Member, Michigan Speech-Language-Hearing Association (MSHA); early 1990s; currently a non-member

Hearing Aid Dealers License (#17000751A), State of Indiana, May 16, 1985-June 30, 1988

Hearing Aid Dealers License (#3501003452), State of Michigan, November 2001-November 2005

Audiologist License (#1601000461), State of Michigan, May 2007-December 2009

COMMITTEE APPOINTMENTS, CONSULTANTSHIPS, AND RELATED PROFESSIONAL SERVICE ACTIVITIES

INTERNATIONAL LEVEL

Member, Hearing International, September 2000-2007; Member, Committee on Management and Rehabilitation of Hearing Loss, Hearing International, September 2000-2007; Chair, Subcommittee on High-Quality, Low-Cost Hearing Aids
Invited reviewer of promotional materials of Dr. Wahab Owolawi Owolawi, King Saud University, Saudi Arabia, June 2007

NATIONAL LEVEL

Congressional Action Contact (CAC) of ASHA, July 1972-June 1973
ASHA Committee on Audiometric Evaluation, January 1978-June 1980
Chair, ASHA Task Force on Information Services, 1982-83
Ex-officio Member: ASHA Committee on Scientific Affairs, ASHA Committee on Personnel and Service Needs in Communication Disorders, ASHA Committee on Educational Technology, July 1982-July 1984
Consultant to Deafness, Speech and Hearing Publications (DSHP) Board, ASHA, October 1982-July 1984
Chair, ASHA Task Force on Personnel Supply, Demand and Utilization, 1983-1984
Chair, Forum on Allied Health Data, Spring 1983-Spring 1984
Steering Committee, American Speech-Language-Hearing Foundation Conference, "The Personal Computer as a Professional Tool," 1983-1984
Member, ASHA Task Force on Personnel Supply, Demand and Utilization, July 1984-April 1986
Editorial Consultant, *Journal of the Acoustical Society of America*, 1987-1989, June 2014-present
Reviewer of NIH-SBIR research grant proposals, Washington, DC, March 14-15, 1995
Reviewer of House Ear Institute research proposal, March 1997
Editorial Consultant, *Journal of Speech-Language-Hearing Research* (periodic)
Editorial Consultant, *Ear and Hearing* (periodic)
Editorial Consultant, *American Journal of Audiology* (periodic)
Editorial Consultant, *Iranian Audiology* (periodic)
Editorial Consultant, *International Journal of Audiology* (March 2006-present)
Editorial Consultant, *Pediatrics*, February 2013
Editorial Consultant, *International Journal of Environmental Research and Public Health*, June 2014-present

STATE LEVEL

Member, Clinic, Hospital, and Private Practice Ad Hoc Committee, Indiana Speech and Hearing Association, September 1986-October 1987
Member, Program Committee, Indiana Speech and Hearing Association, 1986-1987, 1987-1988
Member, Michigan Speech-Language-Hearing Association, 1991-1997
Member, Audiology Committee, Michigan Speech-Language-Hearing Association, 1991
Vice-President for Membership, Executive Council, Michigan Speech-Language-Hearing Association, January 1991-December 1992

- Consultant, Michigan Law Enforcement Officers Training Council re hearing standards, 1991-1992; 2003.
- Michigan representative for Membership Recruitment Network, American Academy of Audiology, 1992
- Consultant to Department of Veterans Affairs (DVA), Audiology Section, Ann Arbor, Michigan, 1992
- Consultant to Michigan Department of Social Services, Hearing and Hearing Aid Reimbursement Program, Lansing, Michigan, 1993-1995
- Reviewer, Sertoma Communicative Disorders Scholarship Applications, Michigan Region, Sertoma International, 1994-95, April 1994
- Participant in first MSHA-sponsored Legislative Day, May 4, 1994, contacting offices of Senators Debbie Stabenow and Fred Dillingham and Representative Lynn Jondahl
- Member, Advisory Board for Occupational Noise-Induced Hearing Loss, State of Michigan, 1995-present
- Member, Audiology Advisory Panel, Michigan Department of Community Services, 1995-1996
- Participant, with Nigel Paneth, M.D., in gaining approval of Michigan Chapter of American Academy of Pediatrics to implement resolution that pediatricians refer all children to audiologists for audiological and hearing aid evaluations, 1997
- Consultant to Pyle, Rome, Lichten, & Eurenberg, P.C., Attorneys at Law, Boston, MA, re cases of occupational hearing loss in law enforcement officers and firefighters, January 1999-January 2002.
- Consultant, SHL, Contractor with Commonwealth of Massachusetts, Evaluation of hearing standards for police officers and firefighters, May 28, 2002
- Member and Chair, Wind and Health Technical Work Group, Bureau of Energy Systems, Department of Energy, Labor, and Economic Growth (DELEG), State of Michigan, March 2010-June 2011

UNIVERSITY LEVEL

- Participant in CIC Predoctoral Fellows Conference, Michigan State University, November 1993
- Participant in Focus Group meeting of Committee on Improving, Evaluating and Rewarding Teaching (CIERT), Michigan State University, December 1993
- Member, Ad Hoc Committee on University-Wide Performance Indicators, Michigan State University, May-June 1995
- Member, Clinical Services Group, Evaluating Quality Outreach Working Group, Michigan State University, February-May 1999
- Faculty Tenure Committee, Michigan State University, 1993-1995
- University Committee on Research in Human Subjects (UCRIHS), Fall Semester 2000, January 2011-present
- Member, Ad Hoc Working Group on Institutional Indicators for Evaluating Quality Outreach, Michigan State University, February-May, 1999
- Faculty Participant in Freshman Orientation Program, Michigan State University, June 29, 1999
- Member (interim), Faculty Council, Michigan State University, January-May 2005
- Member (interim proxy), Academic Council, Michigan State University, January-May 2005
- Member, University Committee on Academic Policy (UCAP), May 2007-May 2009

Representative, Academic Council (from University Committee on Academic Policy), August 2007-May 2008

COLLEGE/DEPARTMENTAL LEVEL

Departmental committees (Michigan State University): Audiology Faculty Position Search Committee (1993-94); Clinical Affairs Committee (1990-94); Clinical Specialist Position Search Committee (1993); Curriculum Committee (1991-92); Faculty Advisory Committee (1990-91); Graduate Studies and Admissions Committee (1990-2010, periodically serving as Chair); Neuropathology Faculty Position Search Committee (1990-91)

College committees (Michigan State University): Intracollegiate Planning Committee (1992-1994); CAS Technology Advisory Committee (2002-2003)

Revised Departmental Handbook, Fall 2003

College Reappointment, Tenure, and Promotion Committee (2006-2007)

Member, Admissions Committee, Department of Communicative Sciences and Disorders, 2008

Member, Committee to Review Health Communication Program, College of Communication Arts and Sciences, September 2008-January 2009

Member and Chair, Admissions Committee, Department of Communicative Sciences and Disorders, 2009

MEDIA EVENTS

Interview on WJLM-TV, Channel 6, Lansing, Michigan, Better Hearing and Speech Month, May 20, 1997.

Interview on WLAN-TV, Channel 6, Lansing, Michigan, Segment on Hearing Loss, February 4, 1999.

Interview with Broadcast/Photo Division of MSU's Office of University Relations, Dennis Krolik, February 5, 1999.

MSU State News, Study Finds Hearing Loss in Youth, September 15, 2005.

Detroit News, Hearing under Assault, January 3, 2006.

Wall Street Journal, Behind the Music, iPods and Hearing Loss, January 10, 2006.

Newstips provided to Melanie Lynne Trusty (via e-mail), MSU Journalism student, February 6, 2006, concerning Apple's iPod lawsuit.

Interview with MSU Focal Point on Listening with iPods, Jamie Lauren Kandel, February 22, 2006.

Not All Hearing Aids Are Created Equal, article appearing in:

MSU News, <http://news.msu.edu/story/5621/>, August 13, 2008

ScienceDaily, <http://www.sciencedaily.com/releases/2008/08/080813164634.htm>, August 14, 2008

CHINA ORG.CN, http://www.china.org.cn/health/2008-08/14/content_16223170.htm, August 14, 2008

Detroit Free Press,

<http://www.freep.com/apps/pbcs.dll/article?AID=/20080815/NEWS06/80815034>

6/1008/NEWS06, August 15, 2008 (appearing under title, Drugstore Hearing Aids May Do Harm)

Hearing Review Insider, http://www.hearingreview.com/insider/2008-08-28_08.asp;
August 28, 2008

(This article also appeared on numerous additional Web sites and blogs.)

Interview with Naomi Schalit, Executive Director and Senior Reporter,
Maine Center for Public Interest Reporting, Hallowell, ME on topic of wind-turbine
noise, July 27, 2010.

Interview with Bob Allen, Interlochen Public Radio, Interlochen, Michigan, on topic of health
effects of wind-turbine noise, January 14, 2011.

Interview with Mark Bashore, Wind Turbines Pose Health Risks, Current State, WKAR,
Michigan State University, February 11, 2014.

Interviews on WKAR-AM Radio Call-In Show, Michigan State University:

<u>Topic/Theme</u>	<u>Date</u>
Better Hearing and Speech Month	May 1991
Audiology Topics	September 3, 1992
Audiology Topics	March 31, 1993
Better Hearing and Speech Month	May 17, 1993
Hearing Topics: Children and Adults	July 9, 1993
Hearing Aids	September 27, 1993
Audiology Topics	January 10, 1994
Audiology Topics	March 2, 1994
Better Hearing and Speech Month	May 3, 1994
Hearing Loss and Hearing Aids	July 19, 1994
Auditory Perception Disorders and Hearing Aids	December 29, 1994
Hearing, Hearing Loss, Prevention of Hearing Loss	March 30, 1995
Better Hearing and Speech Month	May 1, 1997
Better Hearing and Speech Month	May 10, 1999
Better Hearing and Speech Month	May 16, 2000

BOOK REVIEWS

Probe Microphone Measurements: Hearing Aid Selection and Assessment (1992), by H. Gustav
Mueller, David B. Hawkins, & Jerry L. Northern, San Diego, CA: Singular Publishing
Group, Inc. In (1992) *Ear and Hearing*, 13, 467-468.

RESEARCH PROPOSALS, GRANTS, AND CONTRACTS

- Faculty Research Grant, "Investigation of Adequacy of Audiometric Calibration in Hearing Conservation Programs," University of Mississippi, 1971-72 (funded)
- Faculty Research Grant, "Development and Evaluation of a Filtered Speech Screening Test," University of Mississippi, 1972-73 (funded)
- Principal Investigator, Veterans Administration Contract, "The Clinical and Acoustic Parameters of Hearing Aid Effectiveness," University of Maryland, October 1976-June 1980 (funded)
- Project Director, "Speech-Language Pathology and Audiology: An Educational Perspective for the Future," American Speech-Language-Hearing Association, July 1980-June 1981 (funded \$222,433)
- Co-author of, and consultant to, project funded by Department of Education, "Leadership Training in Computer Technology: A Tri-Level Multidisciplinary Program for Special Educators and Speech-Language Pathologists and Audiologists," ASHA National Office, January 1983-June 1984 (funded \$122,875)
- Co-author of, and consultant to, project funded by Department of Education, "Validation of a Model to Evaluate Microcomputer Software for Communicatively Handicapped Students," ASHA National Office, December 1983-June 1984 (funded \$154,489)
- Primary writer of a grant proposal funded by NINCDS-NIH, "Comparison of Sensory Aids in Deaf Children," Indiana University School of Medicine, January 1987 (funded \$348,869)
- Principal Investigator of project funded by NIDCD-NIH, "A DSP-Based Approach to the Study of Hearing Aid Fitting," Michigan State University, January 1991-December 1992 (funded \$63,946)
- Project Director, "Development of a Multimedia-Based Version of the Hearing Handicap Inventory for the Elderly," All-University Outreach Grant, Michigan State University, July 1992-December 1993 (funded \$14,947)
- Project Director, "Accommodation of the Communicative Needs of Hearing-Impaired Students and Faculty at Michigan State University," Project funded (for support of Graduate Assistant) by Office of the Provost, Michigan State University, January 1995-August 1995 (funded)
- Member, Project Team, Strategic Partnership Grant to Fund Hearing Research Center, Michigan State University, July 1, 1996-June 1997 (funded ~\$210,000)
- Lead Investigator (with Brad Rakerd and Aryn Amlani), "Intelligibility Testing of Digitized Sound Files Provided by IC Tech," Contract with IC Tech, Inc., Okemos, MI, February 6-May 31, 2001 (funded)
- NIH-NIDCD Proposal, "Real-World Based Fitting of a Multimemory Hearing Aid," 2002 (unfunded)
- Sponsor, NIH fellowship (1 F31 DC05429-01) to Michigan State University to support doctoral dissertation project of Aryn Amlani, "Predicting Speech Intelligibility from Directivity Index," February 2002-January 2003 (funded \$25,783)
- NIH-STTR Fast-Track Proposal, "High-Quality, Affordable Hearing Aids for World Markets," 2003 (unfunded)
- NIH-NINCD Proposal, "Development of a Quality-of-Life (QoL) Inventory for Hearing-Impaired Adults," 2009 (unfunded)

PROGRAM SITE VISITS

Department of Audiology and Speech Sciences, Purdue University, October 19-21, 1994 (Invited by School of Liberal Arts)

Selected Audiology programs in state of Louisiana, commissioned by Louisiana Board of Regents (March 18-23, 2002; January 15, 2003); reviewed programs include Louisiana Tech University, Louisiana State University, and Louisiana State University Health Sciences Center

ACCOMPLISHMENTS AS STAFF MEMBER OF ASHA NATIONAL OFFICE (1980-84)

Served as Project Director during first year of a federally funded three-year study of service and training needs in the profession of speech-language pathology and audiology

Conducted study of employment and salary trends in the profession, May 1982

Edited a comprehensive review of literature relative to incidence and prevalence of speech, language and hearing disorders entitled, "The Prevalence of Communicative Disorders: A Review of the Literature"

Co-compiled a comprehensive report on federal and private funding sources in speech, language, and hearing, "Profiles of Funding Sources"

Served as ASHA representative to Forum on Allied Health Data (FAHD), a consortium of federal, professional and private organizations devoted to establishing databases on manpower in medically related health professions; Chair of FAHD, May 1983-May 1984

Coordinated survey of graduate training programs for publication, *Guide to Graduate Education 1983*

Coordinated development of guidelines for conduct of ASHA surveys by committees, boards, councils, and National Office staff members

Developed proposal for comprehensive investigation of work force supply and demand in speech-language pathology and audiology profession (approved by ASHA Executive Board)

Instituted "Data Page" feature in *Asha*, a regular feature devoted to reporting data on ASHA membership, the speech-language pathology and audiology profession, and the communicatively impaired

Coordinated development, creation, publication, and distribution of *Research Bulletin*, newsletter for member and nonmember scientists

Conducted survey and completed co-authored report on consolidation of ASHA's scholarly publications, "National Office Report of Journals Survey"

Conducted survey and completed report on *dsh Abstracts*, Report of 1980 *dsh Abstracts* Survey

Coordinated special issue of *Asha* on science theme (December 1984); participated in interview, "Asha Interviews: Janis Costello, Jerry Punch, Teris Schery, Lawrence Shriberg;" and co-authored "Data Page" feature on that issue

Developed proposal for initiating computer-based information services for use of ASHA members, and coordinated ASHA Task Force on Information Services (1982-83)

Coordinated effort to structure and initiate the Research Information Service (RIS), a computerized database containing information on research career opportunities, research technology resources, and research funding opportunities

OTHER NOTABLE PROJECTS

Web site (<http://www.msu.edu/~asc/hhi>); originally developed in conjunction with Hearing Research Center, Michigan State University, September 1997; includes Web-based Hearing Handicap Inventory

Hearing Handicap Inventory: Multimedia Version, developed in February 1998 by J.L. Punch and B.E. Weinstein. Interactive CD-ROM program designed to screen for hearing handicap, and as an outcomes-assessment measure, in young and elderly adult populations; available through MSU's Instructional Media Center

Developed ASC 843C, Hearing Amplification I (<http://vu.msu.edu/preview/asc843c/>), online course offered for credit and non-credit, beginning summer 2002-fall 2006

Developed ASC 843I, Hearing Amplification II (<http://vu.msu.edu/preview/asc843i/>), online course offered for credit and non-credit beginning summer 2002-spring 2006

FORENSIC ACTIVITIES

Legal deposition, Dana Rowe v. North Reading Fire Department, Boston, MA, July 29, 1999

Legal deposition, Boston Police Department v. Richard Dahill, Boston, MA, July 30, 1999

Legal Consultant, Montana Advocacy Program, Phil Hohenlohe, Staff Attorney, Helena, MT, 2004-2009 (no testimony given)

Legal Consultant, Stephen J. Vujcevic v. Oglebay Norton Marine Services Company, LLC et al., Eastern District of Michigan, Southern Division, May 2007-December 2008

Legal Consultant, Bonfiglio v. Northridge Church, et al, Hohaus Law Firm, Rochester, Michigan, May 2008-December 2009

Reviewed and commented on hearing standard proposed by American College of Occupational and Environmental Medicine (ACOEM), at invitation of Daniel G. Samo, MD, Medical Director, Health Promotion and Corporate Services, Northwestern Memorial Hospital, Northwestern University Feinberg School of Medicine, February-May 2009

Legal testimony, Application of Highland Wind Farm, LLC, to construct a 102.5 MW wind electric generation facility and associated electric facilities, to be located in the Towns of Forest and Cylon, St. Croix County, Wisconsin; Hearing by Public Service Commission, Madison, Wisconsin, Docket 2535-CE-100, Towns of Forest and Cylon represented by Glenn Reynolds; Direct testimony, 8/30/12 (PSC Ref# 171133); Surrebuttal testimony, 10/3/12 (PSC Ref# 173730); Testimony re Shirley Wind, 1/15/13 (PSC Ref# 17149), Rebuttal testimony, 1/22/13 (PSC Ref# 179627).

Legal testimony on behalf of Union Neighbors United, Inc., Robert and Diane McConnell, and Julia F. Johnson, In the Matter of the Application of Champaign Wind LLC to Install Electricity Generating Wind Turbines in Champaign County, Ohio, Hearing by Power Siting Board, Columbus, Ohio, Case No. 12-0160-EL-BGN, Union Neighbors United, Inc. represented by Jack A. Van Kley and Christopher A. Walker; Direct testimony, 10/31/12; Oral deposition, 11/7/12; Cross examination, 11/19/12.

- Legal deposition, 7/24/13, Charles and Debby Wiltzer, and Seager Wiltzer (represented by Chester E. Kasiborski, Jr., and Susan Hlywa Topp, vs. Heritage Sustainable Energy and Heritage Stoney Corners Wind Farm LLC (represented by Robert G. Chaklos, Jr., and Kurt M. Bowden).
- Legal testimony, 12/5/13, Daubert Hearing, Charles and Debby Wiltzer, and Seager Wiltzer (represented by Chester E. Kasiborski, Jr., and Susan Hlywa Topp) vs. Heritage Sustainable Energy and Heritage Stoney Corners Wind Farm LLC (represented by Robert G. Chaklos, Jr., and Kurt M. Bowden); qualified as expert witness, 12/16/13.
- Retained as expert witness, Reuters v. Osceola Windpower, Iowa; Abby Walleck, attorney for plaintiff, 6/30/14; Steve Hamilton currently serves as plaintiff's attorney.
- Legal testimony on behalf of United Citizens for Livingston County (represented by Phillip Luetkehans) vs. Pleasant Ridge Wind Farm (Invenergy represented by Michael S. Blazer), Livingston County Zoning Board of Appeals, Livingston County, IL; Direct testimony, 1/21/15; cross-examination 1/22/15; additional cross-examination, 2/23/15.
- Legal deposition on behalf of Daniel Brian Williams (represented by James McCandlish) vs. Invenergy LLC, Portland, Oregon, 7/2/15.

CONTINUING EDUCATION ACTIVITIES

(Listed in chronological order, since 1990; does not include attendance at annual professional conventions or local hearing aid update meetings, at which attendance was regular prior to retirement)

- ASHA Audio Teleconference, Amplification for Difficult to Fit Clients: A Case Study Exchange, July 20, 1990
- Van Riper Lectures in Speech Pathology and Audiology, Signal Processing Hearing Aids: Bridging the Clinical-Research Gap, Western Michigan University, Kalamazoo, MI, October 4-5, 1990
- Introduction to the IBM Mainframe Computing System, Michigan State University, Fall 1990
- International Hearing Aid Conference: Signal Processing, Fitting, and Efficacy, University of Iowa, Iowa City, IA, June 21-23, 1991
- MSUnet: An Introduction to Communications and Networking, Michigan State University, Summer 1991
- Using Multimedia for Instruction and Presentation, Michigan State University, Fall 1991
- Au.D. Audio Teleconference, Sponsored by Purdue University, October 30, 1991
- Middle Ear Disorders in Children: An Update on Treatment and Management, ASHA Teleconference, February 26, 1993
- Participant, Meet Michigan, guided tour of northeastern Michigan outreach programs receiving support from Michigan State University, May 10-13, 1993
- International Hearing Aid Conference II: Signal Processing, Fitting, and Efficacy, University of Iowa, Iowa City, IA, June 24-27, 1993
- Lilly Faculty Seminar Programs, Sheila Tobias, Conversations about Teaching and Learning: Testing Workshop, Michigan State University, January 21, 1994

- Lilly Faculty Seminar Programs, Ann Austin, Teaching for Understanding: Building on What Students Bring to the Classroom, Michigan State University, February 11, 1994
- Telecommunication and Community Health Care for Michigan, Conference sponsored by Michigan State University, June 17-18, 1994
- Student Information System Training Course, Michigan State University, August 16 & 18, 1994
- Leadership Workshop for Chairs and Directors, Sponsored by Office of the Provost, Michigan State University, September 16, 1994
- Leadership Workshop for Chairs and Directors, Sponsored by Office of the Provost, Michigan State University, October 14, 1994
- Facilitator, Faculty retreat in Department of Audiology and Speech Sciences, October 22, 1994
- Expanding Educational Opportunities Conference, Sponsored by ASHA, Bethesda, MD, January 28-29, 1995
- Leadership Workshop for Chairs and Directors, Sponsored by Office of the Provost, Michigan State University, February 3, 1995
- Leadership Workshop for Chairs and Deans, Peter Seldin and Linda Annis, Improving Teaching: What Works and What Doesn't, Sponsored by Office of the Provost, Michigan State University, February 3, 1995
- Workshop, Sponsored by National Consortium for Universal Newborn Screening, TEOAE-Based Universal Newborn Hearing Screening, Georgetown University Medical Center, Washington, DC, November 16-18, 1995
- Visited University College London, London, England, to establish Study Abroad semester program for MSU undergraduate students, June 24-July 6, 1996
- Leadership Workshop for Chairs and Deans, Lou Anna K. Simon, The Continuing Dialogue on Motivating Change, Sponsored by Office of the Provost, Michigan State University, August 29, 1996
- Leadership Workshop for Chairs and Deans, Jude West, Leadership Skills in a Changing Academic Environment, Sponsored by Office of the Provost, Michigan State University, October 2, 1996
- Leadership Workshop for Chairs and Deans, Robert Church, Enhancing the Teaching Mission with Technology: Issues and Challenges, Sponsored by Office of the Provost, Michigan State University, November 12, 1996
- Leadership Workshop for Chairs and Deans, Terry Curry, Faculty Performance Reviews, Sponsored by Office of the Provost, Michigan State University, February 19, 1997
- Seminar, Internet Tools for Distance Learning, Michigan State University, April 17, 1997
- Conference, Reaching for Cultural and Social Diversity in Speech Pathology and Audiology: Assessing Cultural and Social Values, Ronald Jones, Ph.D., Co-sponsored by Department of Audiology and Speech Sciences, Michigan State University, and Speech Pathology and Audiology Program, Norfolk State University, Michigan State University, April 21, 1997
- Conference, Preventive Ethics, Sponsored by Office of the Provost, Michigan State University, April 23, 1997

- Graduate Program Director Workshop on Financing Graduate Education, Sponsored by the Graduate School, Michigan State University, April 30, 1997
- Leadership Workshop for Chairs and Directors, Sponsored by Office of the Provost, Michigan State University, September 23, 1997
- Leadership Videoconference, The Nonprofit Leader of the Future: A Seminar in Social Sector Leadership, Peter Druker, Sponsored by Office of the Provost, Michigan State University, September 25, 1997
- Leadership Workshop for Chairs and Directors, Drug-Free Workplace, ADA, Sexual Harassment Prevention, and EAP Issues, Sponsored by Office of the Provost, Michigan State University, October 23, 1997
- Communication and Aging: Interdisciplinary Approaches to Keep Elders Communicating, Van Riper Lectures in Speech Pathology and Audiology, Western Michigan University, October 24, 1997
- Leadership Workshop for Chairs and Directors, Technology and Computing at the Unit Level: Issues and Opportunities, Paul Hunt, Sponsored by Office of the Provost, Michigan State University, November 11, 1997
- Instructional Videoconference, Putting Your Course Online, Sponsored by Office of the Provost, Michigan State University, November 13, 1997
- Workshop, Using Computers in Instruction, Sponsored by Office of the Provost, Michigan State University, November 18, 1997
- Workshop, Technology in the Classroom, Frank Tate, Sponsored by Instructional Media Center, Michigan State University, January 12, 1998
- Workshop, Effective Teaching, Sandi Smith, Sponsored by Office of the Provost, Michigan State University, January 29, 1998
- Workshop, Writing Faculty Performance Reviews, Terry Curry, Sponsored by Office of the Provost, Michigan State University, February 2, 1998
- Workshop, Getting Things Done: Delegating and Accountability, Michael Polzin and Tina Riley, Sponsored by Office of the Provost, Michigan State University, February 18, 1998
- Workshop, Getting New Faculty Started, Ann E. Austin, Sponsored by Office of the Provost, Michigan State University, October 23, 1998
- Workshop, Faculty Course Portfolios: From Teaching to Learning, Deborah M. Langsam, Sponsored by Office of the Provost, Michigan State University, October 26, 1998
- Workshop, Using Learning Theory to Inform Teaching Practice, Marilla Svinicki, Sponsored by Office of the Provost, Lilly Faculty Seminar Programs, Michigan State University, November 6, 1998
- Workshop, Writing Faculty Performance Review: What We Have Learned in One Year, Terry Curry, Sponsored by Office of the Provost, Michigan State University, February 9, 1999
- Workshop, The Chairs Plague: Dealing with Difficult People, George A. Lopez, Sponsored by Office of the Provost, Michigan State University, March 3, 1999
- Workshop, Survival Skills for Administrators, Kristina Gunsalus, Sponsored by Office of the Provost, Michigan State University, April 28, 1999

- Audiology Curriculum Conference, Wendell Johnson Speech and Hearing Center, University of Iowa, July 9-11, 1999
- Participant, Parent Panel for Parent Orientation Program (POP), Michigan State University, June 29, 1999
- Educational Seminar, Directional Microphone Usage in Hearing Aids, Unitron Industries, Inc., Grand Rapids, MI, July 8, 1999
- Academic Leaders Program, Presented by Faculty of the Wharton School of Business and Institute for Research on Higher Education, University of Pennsylvania, Grand Rapids, MI, August 19-21, 1999
- Leadership Workshop for Chairs and Deans, Lou Anna K. Simon, The Continuing Dialogue on Motivating Change, Sponsored by Office of the Provost, Michigan State University, September 28, 1999
- Sexual Harassment Workshop, Sponsored by Office of the Provost, Michigan State University, October 8, 1999
- Dreamweaver2, Levels 1 and 2 (Web Publishing Software), Seminars for Faculty on Instructional Technology, Libraries, Computing and Technology, Michigan State University, January 6, 2000
- Virtual Universities: Online and On Target?, Video Teleconference, Sponsored by Dallas County Community College District, February 3, 2000
- Fulbright Scholar Program, Sponsored by Michigan State University Office of International Studies and Programs, May 9, 2000
- Blackboard II (Advanced Features), Mary Longcore, Sponsored by Office of Libraries, Computing and Technology, Michigan State University, July 2000
- Creating a High Impact Classroom Climate, James Eison, Lilly Faculty Seminar Programs, Michigan State University, September 15, 2000
- Copyrights and Wrongs for the Web and the Classroom, Michael Seadle, Explorations in Instructional Technology Series, Michigan State University, September 22, 2000
- Blackboard I (October 26, 2000) & Blackboard II (November 15, 2000), Ben Goodsell, Sponsored by Office of Libraries, Computing and Technology, Michigan State University
- Cerumen-Related Hearing Aid Repairs, Offered by Michael Phillips, Phonak, Inc., East Lansing Marriott, November 10, 2000
- Teaching Online, One-week seminar offered by William A. Draves, LERN organization (<http://www.lern.org>), February 5-9, 2001
- Using Video to Enhance Lectures and Courses, WKAR Staff, Michigan State University, March 23, 2001
- Visited Singapore to attend meeting of *Hearing International*, March 2001
- Unison Digital Systems Training Seminar, Unitron Hearing, August 19, 2002
- Angel A and B, Anne Hunt, Sponsored by Office of Libraries, Computing and Technology, Michigan State University, May 6, 2003
- Web Page Design, Sponsored by Office of Libraries, Computing and Technology, Michigan State University, June 3 & 5, 2003
- Web Accessibility, Sponsored by Office of Libraries, Computing and Technology, Michigan State University, June 6, 2003

- Fireworks MX, Level 1, Sponsored by Office of Libraries, Computing and Technology, Michigan State University, June 16, 2003
- Dreamweaver MX, Level 1, Sponsored by Office of Libraries, Computing and Technology, Michigan State University, June 17 & 19, 2003
- Dreamweaver MX, Level 2, Sponsored by Office of Libraries, Computing and Technology, Michigan State University, July 24, 2003
- Socrates in Cyberspace, Cecil Mackey, Explorations in Instructional Technology Series, Michigan State University, October 3, 2003
- Grant-Writing Strategies in the Social Sciences and Education, Sponsored by The University Research Council and The Office of Faculty and Organizational Development, Kellogg Center, Michigan State University, March 30, 2004
- Three Proven Approaches to Web-Supported Teaching, MSU Virtual University Design and Technology (vuDAT) Breakfast Series, February 28, 2005
- Maintaining, Storing and Using Sensitive Data, Sponsored by MSU Libraries, Computing & Technology, October 25, 2005
- Human Participant Protections Education for Research Teams, Sponsored by the National Cancer Institute, NIH, Certification awarded December 19, 2005
- Output Levels of Personal Stereo Systems, and What Audiologists Need to Know, Brian Fligor, Live Online Videoconference Sponsored by Audiology Online eLearning, February 22, 2006
- Constructing Knowledge through Inquiry: Teaching Students the Art of Asking Questions in the Disciplines, Laura Greene, Sponsored by Office of the Provost, Michigan State University, May 16, 2006
- Grants.gov Workshop, Sponsored by Office of Contracts and Grants Administration, Michigan State University, August 16, 2006
- LSE Workshop, Sponsored by Department of Epidemiology, Michigan State University, July 10, 2007
- Developing and Operating an Online Course for Over 1000 Students per Year, Sponsored by Explorations in Instructional Technology Series, Michigan State University, November 9, 2007
- LSE Workshop, Sponsored by Department of Epidemiology, Michigan State University, November 29, 2007
- Hear the Difference: What Audiologists Need to Know about the Baha Implantable Hearing Solution. Workshop sponsored by Cochlear Americas, Lansing, Michigan, May 7, 2008
- Visited University of Dakar (UCAD) to assist in establishing a special-education program at the graduate level, March 23-June 2, 2008 (with Ida Stockman, Ph.D.)
- Completed continuing-education unit (CEU) requirements for continued certification by ASHA and licensing by state of Michigan as an audiologist (completed 3.5 CEUs; 3.0 CEUs required for certification and licensing), December 2008
- CITI Collaborative Institutional Training Initiative (most recent update), April 1, 2009
- Data Analysis Using SPSS, Sandra Herman, Sponsored by Center for Statistical Training & Consulting, Michigan State University, October 9, 2009

- Funding and Proposal Writing Resources, Jon Harrison, MSU Libraries, Michigan State University, September 18, 2009
- Workshop: The Grant Process, Maria Lapinski, College of Communication Arts and Sciences, Michigan State University, October 23, 2009
- Completed continuing-education unit (CEU) requirements for continued certification by ASHA as an audiologist, December 2011
- IRB Retreat, Michigan State University, June 8, 2013
- IRB Administrative Workshops, Quali Coeus IRB Blueprint Sessions 1 and 2, Michigan State University, October 31 and November 4, 2013
- Audiology Online, Continuing-education credits completed toward renewal of ASHA Certificate of Clinical Competence, October 2014
- Hearing Technology: Stream On, Conference sponsored by Department of Otolaryngology, University of Michigan, East Lansing Marriott, East Lansing, Michigan, October 14, 2015

January 5, 2017

Gary A. Abraham,
Law Office of Gary A. Abraham
4939 Conlan Rd.
Great Valley, NY 14741

Subject: Qualifications of R. James

Dear Mr. Abraham:

I am the Owner and Principal Consultant for E-Coustic Solutions, LLC, of Okemos, Michigan. I have been a practicing acoustical engineer for over 40 years. My career started as an acoustical engineer working for the Chevrolet Division of General Motors Corporation in the early 1970s. Since that time my clients include many large manufacturing firms, such as, General Motors, Ford, Goodyear Tire & Rubber, and others who have manufacturing facilities community noise and worker noise exposure. In addition, I have worked for many small companies and private individuals. I have been actively involved with the Institute of Noise Control Engineers (INCE) since it's formation in the early 1970's and am currently a Member Emeritus.

My academic credentials include a degree in Mechanical Engineering (BME) from General Motors Institute, Flint Michigan (now Kettering Institute). I was an adjunct Instructor to the Speech and Communication Science Department at Michigan State University from 1985 to 2013 and am currently an adjunct Professor for the Department of Communication Disorders at Central Michigan University.

Specific to wind turbine noise, I have worked for clients on wind turbine related projects in over 60 different communities.

Written and oral testimony was provided in approximately 30 of those cases. I have also authored or co-authored four papers covering wind turbine noise topics including:

- Criteria for wind turbine projects necessary to protect public health (2008),
- Demonstrating that wind turbine sound immissions are predominantly comprised of infra and low frequency sound (2011), and
- A peer reviewed historical review of other types of low frequency noise sources with similar sound emission characteristics, such as large HVAC systems (fans) which caused noise induced Sick Building Syndrome and other noise sources that have known adverse health effects on people exposed to their sound. (2012).
- A peer reviewed paper published in 2016 describing research conducted over the last 40 years showing that wind turbine noise has specific characteristics that pose risks of adverse impacts on a community if wind turbines are located too close to homes. It focuses on the arguments presented by the wind industry when it asserts that wind turbines pose no risks to the public's health and welfare.

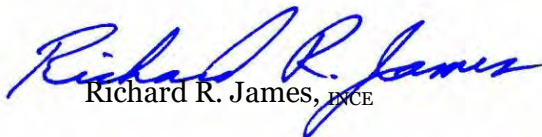
I have been qualified as an expert in acoustics for hearings and court proceedings in several countries including several in New York. Qualifications in Canada and the U.S are shown in the table below.:

Jurisdiction	Before	Qualified as:
Ontario, CA (January 2014)	Ministry of Environment (MOE) and Environmental Review Tribunal (ERT)	Qualified to provide evidence on matters related to acoustics and noise control engineering and wind turbines
Alberta, CA (Dec. 2013)	Alberta Utilities Commission (AUC)	an acoustical engineer and acoustician with expertise in the field of sound including noise, low frequency noise, sounds emitted from industrial wind turbines and human response to noise.
Michigan, US	Michigan Circuit Court	<ol style="list-style-type: none">1. acoustician with expertise in measurement of wind turbine noise and its effects on people. (Dec. 2013)2. acoustician qualified to opine that the plaintiff's symptoms were caused by the defendant's wind turbines. After special Daubert Hearing (Dec. 2013)

I have attached two documents to support my qualifications and experience. The first is a set of documents covering my qualifications, a summary of cases and jurisdictions where I have provided testimony related to community noise, and a list of my more recent publications. The second is a copy of my statement filed in the hearing before the New Hampshire Siting Evaluation Committee regarding the application for the Antrim Wind, project as Exhibit JL-RJ-1.

Sincerely,

E-Coustic Solutions LLC



Richard R. James, ENCE

BIOGRAPHICAL SKETCH

NAME	POSITION TITLE	BIRTHDATE
Richard R. James	Principal Consultant, E-Coustic Solutions, LLC (2006-)	3/3/48

ACADEMIC CREDENTIALS

INSTITUTION	DEGREE/POSITION	YEAR	FIELD
General Motors Institute, Flint, MI	B. Mech. Eng.	1966-1971	Noise Control Engineering
Michigan State University, East Lansing, MI	Adjunct Instructor	1985-2013	Acoustics and Effects of Noise on People
Central Michigan University, Mount Pleasant, MI	Adjunct Professor	2012-2017	Wind Turbine Noise and its Impact on People

RESEARCH AND PROFESSIONAL EXPERIENCE:

Richard R. James has been actively involved in the field of noise control since 1969, participating in and supervising research and engineering projects related to control of occupational and community noise in industry. In addition to his technical responsibilities as principal consultant, he has developed noise control engineering and management programs for the automotive, tire manufacturing, and appliance industries. Has performed extensive acoustical testing and development work in a variety of complex environmental noise problems utilizing both classical and computer simulation techniques. In 1975 he co-directed (with Robert R. Anderson) the development of SOUND™, an interactive acoustical modeling computer software package based on the methods that would be later codified in ISO 9613-2 for pre and post-build noise control design and engineering studies of in-plant and community noise. The software was used on projects with General Motors, Ford Motor Company, The Goodyear Tire & Rubber Co., and a number of other companies for noise control engineering decision making during pre-build design of new facilities and complaint resolution at existing facilities. The SOUND™ computer model was used by Mr. James in numerous community noise projects involving new and existing manufacturing facilities to address questions of land-use compatibility and the effect of noise controls on industrial facility noise emissions. He is also the developer of ONE*dB™ software. He was also a co-developer (along with James H. Pyne, Staff Engineer GM AES) of the Organization Structured Sampling method and the Job Function Sound Exposure Profiling Procedure which in combination form the basis for a comprehensive employee risk assessment and sound exposure monitoring process suitable for use by employers affected by OSHA and other governmental standards for occupational sound exposure. Principal in charge of JAA's partnership with UAW, NIOSH, Ford, and Hawkwa on the HearSaf 2000™ software development CRADA partnership for world-class hearing loss prevention tools.

- 1966-1970 Co-operative student: General Motors Institute and Chevrolet Flint Metal Fabricating Plant.
- 1970-1971 GMI thesis titled: "Sound Power Level Analysis, Procedure and Applications". This thesis presented a method for modeling the effects of noise controls in a stamping plant. This method was the basis for SOUND™.
- 1970-1972 Noise Control Engineer-Chevrolet Flint Metal Fabricating Plant. Responsible for developing and implementing a Noise Control and Hearing Conservation Program for the Flint Metal Fabricating Plant. Member of the GM Flint Noise Control Committee which drafted the first standards for community noise, GM's Uniform Sound Survey Procedure, "Buy Quiet" purchasing specification, and guidelines for implement-ing a Hearing Conservation Program.
- 1972-1983 Principal Consultant, Total Environmental Systems, Inc.; Lansing, MI. Together with Robert R. Anderson formed a consulting firm specializing in community and industrial noise control.
- 1973-1974 Consultant to the American Metal Stamping Association and member firms for in-plant and community noise.
- 1973 Published: "Computer Analysis and Graphic Display of Sound Pressure Level Data For Large Scale Industrial Noise Studies", Proceedings of Noise-Con '73, Washington, D.C.. This was the first paper on use of sound level contour 'maps' to represent sound levels from computer predictions and noise studies.
- Nov. 1973 Published: "Isograms Show Sound Level Distribution in Industrial Noise Studies", Sound & Vibration Magazine
- 1975 Published: "Computer Assisted Acoustical Engineering Techniques", Noise-Expo 1975, Atlanta, GA which advanced the use of computer models and other computer-based tools for acoustical engineers.
- 1976 Expert Witness for GMC at OSHA Hearings in Washington D.C. regarding changes to the "feasible control" and cost-benefit elements of the OSHA Noise Standard. Feasibility of controls and cost-benefit were studied for the GMC, Fisher Body Stamping Plant, Kalamazoo MI.
- 1977-1980 Principal Consultant to GMC for the use of SOUND™ computer simulation techniques for analysis of design,

- layout, and acoustical treatment options for interior and exterior noise from a new generation of assembly plants. This study started with the GMAD Oklahoma City Assembly Plant. Results of the study were used to refine noise control design options for the Shreveport, Lake Orion, Bowling Green plants and many others.
- 1979-1983 Conducted an audit and follow-up for all Goodyear Tire & Rubber Company's European and U.K. facilities for community and in-plant noise.
- 1981-1985 Section Coordinator/Speaker, Michigan Department Of Public Health, "Health in the Work Place" Conference.
- 1981 Published: "A Practical Method for Cost-Benefit Analysis of Power Press Noise Control Options", Noise-Expo 1981, Chicago, Illinois
- 1981 Principal Investigator: Phase III of Organization Resources Counselors (ORC), Washington D.C., Power Press Task Force Study of Mechanical Press Working Operations. Resulted in publishing: "User's Guide for Noise Emission Event Analysis and Control", August 1981
- 1981-1991 Consultant to General Motors Corporation and Central Foundry Division, Danville Illinois in community noise citation initiated by Illinois EPA for cupola noise emissions. Resulted in a petition to the IEPA to change state-wide community noise standards to account for community response to noise by determining compliance using a one hour L_{eq} instead of a single not-to-exceed limit.
- 1983 Published: "Noise Emission Event Analysis-An Overview", Noise-Con 1983, Cambridge, MA
- 1983-2006 Principal Consultant, James, Anderson & Associates, Inc.; Lansing, MI. (JAA), Together with Robert R. Anderson formed a consulting firm specializing in Hearing Conservation, Noise Control Engineering, and Program Management.
- 1983-2006 Retained by GM Advanced Engineering Staff to assist in the design and management of GM's on-going community noise and in-plant noise programs.
- 1984-1985 Co-developed the 1985 GM Uniform Plant Sound Survey Procedure and Guidelines with James H. Pyne, Staff Engineer, GM AES.
- 1985-2013 Adjunct instructor in Michigan State University's Department of Communicative Sciences and Disorders from 1985-2013
- 1986-1987 Principal Consultant to Chrysler Motors Corporation, Plant Engineering and Environmental Planning Staff. Conducted Noise Control Engineering Audits of all manufacturing and research facilities to identify feasible engineering controls and development of a formal Noise Control Program.
- 1988-2006 Co-Instructor, General Motors Corporation Sound Survey Procedure (Course 0369)
- 1990 Developed One*dB^(tm), JAA's Occupational Noise Exposure Database manager to support Organizational structured sampling strategy and Job Function Profile (work-task) approach for sound exposure assessment.
- 1990-1991 Co-developed the 1991 GM Uniform Plant Sound Survey Procedure and Guidelines with James H. Pyne, Staff Engineer, GM AES. Customized One*dB^(tm) software to support GM's program.
- 1990-2006 Principal Consultant to Ford Motor Company to investigate and design documentation and computer data management systems for Hearing Conservation and Noise Control Engineering Programs. This included bi-annual audits of all facilities.
- 1993-2006 GM and Ford retain James and JAA as First-Tier Partners for all non-product related noise control services.
- 1993 Invited paper: "An Organization Structured Sound Exposure Risk Assessment Sampling Strategy" at the 1993 AIHCE
- 1993 Invited paper: "An Organization Structured Sound Exposure Risk Assessment Database" at the Conference on Occupational Exposure Databases, McLean, VA sponsored by ACGIH
- 1994-2001 Instructor for AIHA Professional Development Course, "Occupational Noise Exposure Assessment"
- 1996 Task Based Survey Procedure (used in One*dB^(tm)) codified as part of ANSI S12.19 Occ. Noise Measurement
- 1995-2001 Coordinate JAA's role in HearSaf 2000tm CRADA with NIOSH, UAW, Ford, and HAWKWA
- 1997-2007 Board Member, Applied Physics Advisory Board, Kettering Institute, Flint, Michigan
- 2002-2006 Member American National Standards Institute (ANSI) Accredited Standards Committee S12, Noise
- 2006 Closed James, Anderson and Associates, Inc. (JAA) and founded E-Coustic Solutions (E-CS)
- 2006-Present Consultant to local communities and citizen's groups on proper siting of Industrial Wind Turbines. This includes presentations to local governmental bodies, assistance in writing noise standards, and formal testimony at zoning board hearings and litigation.
- 2008 Paper on "Simple guidelines for siting wind turbines to prevent health risks" for INCE Noise-Con 2008, coauthored with George Kamperman, INCE Bd. Cert. Emeritus, Kamperman Associates.

- 2008 Expanded manuscript supporting Noise-Con 2008 paper titled: "The "How To" Guide To Siting Wind Turbines To Prevent Health Risks From Sound"
- 2009 "Guidelines for Selecting Wind Turbine Sites," Kamperman and James, Published in the September 2009 issue of Sound and Vibration.
- 2010 Punch, J., James, R., Pabst, D., "Wind Turbine Noise, What Audiologists should know," Audiology Today, July-August 2010
- 2011 Jerry L. Punch, Jill L. Eifenbein, and Richard R. James, "Targeting Hearing Health Messages for Users of Personal Listening Devices," Am J Audiol 0: 1059-0889_2011_10-0039v1
- 2011 Bray, W., HEAD Acoustics, James, R., "Dynamic measurements of wind turbine acoustic signals, employing sound quality engineering methods considering the time and frequency sensitivities of human perception," invited paper for Noise-Con 2011, Portland OR
- 2012 James, R., "Wind Turbine Infra and Low Frequency Sound: Warning Signs that were not Heard," April 2012, Bulletin of Science, Technology and Society
- 2012 Appointed to position as Adjunct Professor in the Department of Communication Disorders at Central Michigan University.

Professional Affiliations/Memberships/Appointments

Research Fellow - Metrosonics, Inc.	American Industrial Hygiene Association (through 2006)
National Hearing Conservation Association (through 2006)	Institute of Noise Control Engineers (Full Member)
American National Standards Institute (ANSI) S12 Working Group (through 2006)	Founder and Board Member of the Society for Wind Vigilance, Inc.
Adjunct Professor, CMU 2012-2017	Adjunct Instructor, MSU 1985-2013

**Summary of Court and Administrative Agency Cases
for Richard R. James, INCE Since 2010
Dec. 12, 2016**

Description	Date	Case No.	Topic
Chatham Ontario, Kent Breeze Wind	February 1, 2010	Hearing before Ontario Environmental Board of Review: Case No: 10-121/10-122	Hearing on whether project complies with Ontario regulations to protect health under the Green Energy Act.
Town of Albany, VT	February 1, 2011	Hearing before Public Services Commission, Docket No. 7628	Hearing before PUC on application for permit by Green Mountain Power Corp. for Kingdom Mountain Wind, LLC.
State of Maine	July 7, 2011	Hearing before the Maine Board of Environmental Protection	Hearing before the BEP on a Petition for Rule Change for Maine's Chapter 375 Noise Regulations to add specific Rules for wind turbine noise.
State of Michigan Circuit Court of Leelanau county	Nov. 8-10, 2011	Michigan Circuit Court, Leelanau County. Case No: 11-8456-CZ	Complaint of Nuisance Noise and other effects of a 100kW Residential class wind turbine
Illinois, Bureau County, Friesland Farms, LLC, Pierson, Plaintiff, v. Big Sky Wind, LLC)	Dec. 30, 2011 (filed testimony) Feb. 1, 2012 Deposed	US District Court, Central District of Illinois, Peoria. Case No. 10-01232	Complaint of noise annoyance and adverse health effects. Case to be heard in early 2013.
Escanaba Twp. (Gladstone MI) vs. Wells Lions Race Track	March 2012 field study and June 2012 report to town attorney	Township enforcement actions	Complaint of noise annoyance related to ice racing race track adjoining residentially zoned property.
Vermonters for a Clean Environment vs. U.S.D.A. Forest Service,	July 23, 2012 filed testimony for Appeal of Decision	US District Court, District of Vermont Civil Action No. 1:12-cv-73	USFWS Failed to properly consider impact of Deerfield Wind Project on Aiken Wilderness Area in its Decision to Approve said project.
Intervenors opposing Application for Certification: Pursuant to RSA 162-H of ANTRIM WIND ENERGY, LLC	PFT and oral testimony presented Aug. 23, 2012. Additional oral testimony on Nov. 29, 2012.	State of New Hampshire Site Evaluation Committee. Docket No. 2012-01	Application for Certification: Pursuant to RSA 162-H of ANTRIM WIND ENERGY, LLC. Testimony on behalf of North Branch Residents Intervenors Group, Abutting Property Owners Intervenors Group, and Katharine Elizabeth Sullivan. Case to be heard Oct. 2012.
Union Neighbors United, Intervenors opposing Application of Champaign Wind LLC before Ohio Power Siting Board	PFT and oral testimony presented Nov. 2012	State of Ohio, Power Siting Board Case No: 12-0160-EL-BGN	Testimony on behalf of Union Neighbors United in opposition to 2nd Phase of Buckeye Wind project. Champaign County, Ohio.
Private lawsuit by Wiltzer family against Stoney Creek Wind Project, McBain, Michigan	Affidavits and other documents	Lawsuit pending	Testimony on behalf of family who has vacated their home as a result of a 2.5 MW wind turbine being operated at 1350 feet from their home.
Private Lawsuit by Zawadzki family vs. Noble Bliss Wind Park and Town of Eagle, New York	Affidavits, noise studies and other related testimony.	Before the State of New York, Supreme Court, Wyoming County, NY, Index No. 43260/10	Testimony on behalf of family who allege that the subject wind utility causes sleep interference and other adverse effects from operation of wind turbines located approximately 1500 feet from home.
MOE Public Hearing for St. Columban Wind Project,	Critical review of Noise Impact Assessment conducted by Zephyr North for St. Columban Wind.	Ontario EBR Registry Number 011-7629, Ministry Reference Number: 6602-8V9P97	Written testimony on behalf of residents living in or near the foot print of the St. Columban project, Huron County, Ontario, Canada
Wisconsin, Public Service Commission, Hearing on Application of Highland Wind Farm, Towns of Forest and Cylon, Wisconsin.	Supplemental Direct Testimony and additional statements to WPSC. Oral testimony pending on January 17, 2013.	WPSC Docket No. 2353-CE-100	Testimony on behalf of Forest Voice on advanced analysis methods and findings from use of those methods to analyze the calibrated audio files collected by the PSC selected Team at homes of affected families in Shirley Wind Project, Glenmore, Wisconsin.
Michigan 28th Circuit Court: Wiltzer vs. Heritage Sustainable Energy, LLC	July 7, 2013 through April 3, 2014	Case No. 12 8205 CZ	Deposition by Heritage July 7, 2013 Daubert Hearing: Oct. 24, 2013 and Dec. 5, 2013 2nd Deposition: April 3, 2014

**Summary of Court and Administrative Agency Cases
for Richard R. James, INCE Since 2010
Dec. 12, 2016**

Description	Date	Case No.	Topic
Paulus vs. Citicorp, Bank data processing center backup diesel generator noise	Deposition: Dec. 18, 2013 Declarations and assistance with motions	Case No. 2:12-cv-856 Settled out of court by mitigation	Deposition by Citibank on Dec. 18, 2013 Judge's response to motions for summary judgment and Daubert Hearing on James' qualifications for noise related to combustion engine noise and human response.
Dixon et. al v. Director, MOE and Middlesex- Lambton Wind Action Group Inc. et. al. v. Director, MOE	Sept. 26, 2013	Case Nos. 13-084-13- 087 and Case. Nos. 13- 088-13-089	Hearing on Application under Ontario Renewable Energy Act for St. Columban Wind project approval.
Cooper vs. Comer, Onandaga Race Track, Leslie, MI	Noise Study: Oct. 12, 2013, Hearing: Mar. 17, 2014, June 22, and Aug. 24, 2015, Feb. 4, 2016 and Mar. 28, 2016	File No: 13-1193-ND	Noise study of drag strip events and hearing with audio visual demonstration of noise at three test sites.
Drennan v. Director, Ministry of the Environment	Oct. 21, 2013	Case Nos. 13-097/13- 098	Hearing on Application under Ontario Renewable Energy Act for Kings Bridge 2 Wind Project approval.
Michigan, 28th Circuit Court for County of Missaukee. Wiltzer vs. Heritage Sustainable Energy. Daubert Hearing	Oct. 24, 2013 and Dec. 5, 2013	Case No. 12 8205 CZ	Deposition: July 22, 2013 Daubert Hearing: Dec. 5, 2013 2nd Deposition: April 3, 2014
Alberta, CA, Alberta Utility Commission, Bull Creek Wind	Nov. 18, 2013-Dec.	Proceeding ID No. 1955	Testimony on behalf of Killarney Lake Group regarding deficiencies in Application for Bull Creek Wind and other reasons the application should be rejected.
Koeplin v. Director, Ministry of the Environment (ARMOW)	January 8, 2014	Case: 13-124/13-125	Hearing on Application under Ontario Renewable Energy Act for ARMOW Wind Project approval.
Rueter v. Osceola Windpower, LLC Iowa District Court/Osceola County	Deposition: original date of Aug. 21, 2014 postponed at defendant's request. To be rescheduled	EQCV0018304	Noise Nuisance lawsuit against wind energy utility
Cham Shan Temple v. Director, Ontario Ministry of Environment (MOE)	Dec. 19, 2014 via Skype	ERT File: 13-140/13-141/13-142.	Hearing on impact of Sumac project wind turbines on Buddhist pilgrimage meditation practices.
Dingeldein v. Director, Ontario Ministry of Environment and Climate Change (MOECC)	May 6, 2015 at Grey Highlands Zero Power ERT	ERT File:15-011	Hearing on impact of Grey Highland Zero Power Project.
Fohr v. Director, Ontario Ministry of Environment and Climate Change (MOECC)		ERT File: 15-026	Hearing on Impact of Grey Highland Clean Energy Project. Oral testimony not given due to problems with teleconference equipment.
Daniel Brian Williams v. Invenergy LLC, et al.	Written testimony, deposition, and preparations for trial Nov. 7-10, 2016. Case settled out of court.	Case No. 2:13-cv-01391- AC US District Court, District of Oregon	Written Testimony and Deposition.
Intervenors v. Walnut Ridge Wind LLC (BHE Renewables)	July 23, 2105 and August 12, 2105	BCZBA-WRW Bureau County, IL, USA	Oral and written testimony before Bureau County Zoning Board of Appeals regarding Walnut Ridge Wind Project.
Alliance to Protect Prince Edward County (APPEC) et al v. Director, MOECC	Nov. 19, 2015	ERT Case Nos. 15-068/15-069	Oral and written testimony before Ontario Environmental Review Tribunal regarding appeal of permit
Walker et al v. Kingfisher Wind, LLC,et al	Deposition Dec. 2015, Case dismissed	Case No. 14-cv-914-D	US District Court, Western District of Oklahoma
Falmouth v Falmouth (Anderson) and (Ohkagawa)	Pending outcome of appeal of ZBA denial of new permit	Docket no. BACV2013-00281-A	Suit filed against Falmouth, MA regarding actions or inactions of Zoning Board of Appeals

**Summary of Court and Administrative Agency Cases
for Richard R. James, INCE Since 2010
Dec. 12, 2016**

Description	Date	Case No.	Topic
Apex Clean Energy, Inc Lighthouse Wind LLC application to NYPSC on behalf of Save Our Shores (SOS)	In Process, initial response to Preliminary Scoping Statements filed Jan. 12, 2016. Additional comments filed through attorney.	Case No. 14-F-0485 filed Nov. 2015	Expert testimony for Save Our Shores, a citizens group intervening in the Lighthouse Wind, LLC application.
Alberta, CA, Alberta Utility Commission, Grizzly Bear Creek Wind Power Project	Nov. 18, 2013- Dec. Continuation of Application filed in 2014, suspended until 2015. Written testimony filed Jan. 31, 2016, oral testimony on Mar. 15 16, 17, 2016	Proceeding ID No. 3329-Do1	Testimony on behalf of Grizzly Bear Coulee Protection Group (GBCPG), an Alberta citizen group intervenor to the E.ON Climate and Renewables Ltd. (E.ON) Grizzly Bear Creek Wind Project (GBCWP or the Project).
Application for New Market Brookman Corners Compressor Station	Written testimony submitted Feb. 9, 2016	SEQRA Review before Minden Twp. Board	Written testimony on behalf of Ostego 2000, Inc. intervenors on behalf of Minden Twp. Residents.
Alliance to Protect Prince Edward County, V. Director MOECC. White Pines Wind Project	Written testimony submitted Sept. 9, 2015, and Dec. 12, 2015. Oral Testimony Nov. 11, 2015	Reference No.: 2344- 9R6RWR, ERT Case No.: 15- 068, ERT Case Name: Hirsch v. Ontario (Environment and Climate Change)	Oral and written testimony before Ontario Environmental Review Tribunal regarding appeal of permit
Alliance to Protect Amherst Island (APAI) v. Director, MOECC	Written Statement submitted April 21, 2016, Oral testimony on April 22, 2016	ERT Case No: 15-084	Oral and written testimony before Ontario Environmental Review Tribunal regarding appeal of permit
Penn Forest Wind Application for Permit in Penn Forest, PA	Oral testimony July 23, 2016 with Powerpoint testimony and exhibits	Hearing before Penn Forest, PA Zoning Board	Oral and written testimony before Zoning Board on behalf intervenors
Timbermill Wind, LLC, Perquimans and Chowan Counties, NC	Written testimony submitted jointly by R. James and R. Rand, Sept. 21, 2016	Hearing before Perquimans County, NC Zoning Board	Written testimony on behalf of Perquimans County, N.C. intervenors
Dan's Mountain	Written testimony of May 23, 2016, Oral testimony presented Sept. 16, 2016 before .	Case No: 9413	Oral and written testimony before Maryland Public Service Commission.
Antrim Wind Hearing	Written and oral testimony (10-20-2016) before NH Site Evaluation Committee	SEC Hearing 2015-02	Testimony regarding opinions on proposed Antrim Wind Energy Project's application under revised NH rules.

¹ This list is not intended as a definitive list of all work. It lists the primary cases where testimony was provided. It may also have incomplete or inaccurate information as a result of rescheduling or other changes.

List of Recent Publications

Oct. 10, 2016

- 2008 Paper on guidelines for siting wind turbines to prevent health risks for INCE Noise-Con 2008, co-authored with George Kamperman, Kamperman Associates.
- 2008 Expanded manuscript supporting Noise-Con 2008 paper titled: "The 'How To' Guide To Siting Wind Turbines To Prevent Health Risks From Sound"
- 2009 "Guidelines for Selecting Wind Turbine Sites," Kamperman and James, Published in the September 2009 issue of Sound and Vibration.
- 2010 Punch, J., James, R., Pabst, D., "Wind Turbine Noise, What Audiologists should know," Audiology Today, July-August 2010
- 2011 Jerry L. Punch, Jill L. Elfenbein, and Richard R. James , "Targeting Hearing Health Messages for Users of Personal Listening Devices," Am J Audiol 0: 1059-0889_2011_10-0039v1
- 2011 Bray, W., HEAD Acoustics, James, R., "Dynamic measurements of wind turbine acoustic signals, employing sound quality engineering methods considering the time and frequency sensitivities of human perception," invited paper for Noise-Con 2011, Portland OR
- 2012 James, R., "Wind Turbine Infra and Low Frequency Sound: Warning Signs that were not Heard," April 2012, Bulletin of Science, Technology and Society, <http://bsts.sagepub.com>, DOI:10.1177/0270467611421845
- 2016 Punch, J. L., James, R.R., "Wind turbine noise and human health: a four-decade history of evidence that wind turbines pose risks," Journal of Hearing Health and Technology Matters, October 4, 2016, <http://hearinghealthmatters.org/journalresearchposters/files/2016/09/Final-Final-16-09-30-Wind-Turbine-Noise-Final-Manuscript-HHTML-Punch-James.pdf>.



Dennis C. Vacco



- Partner at Lippes Mathias Wexler Friedman LLP
- Former New York State Attorney General and Former United States Attorney for Western District of New York
- Successfully argued physician assisted suicide is not a constitutional right before Supreme Court in *Vacco v. Quill*
- Land/Farm owner
- Extensive municipal law and executive law experience and focuses much of his practice on government investigations and regulatory compliance and complex litigation

Dennis C. Vacco | dvacco@lippes.com | 716-853-5100



LMWF's Article 10 Team – Mark C. Davis



- Partner at Lippes Mathias Wexler Friedman LLP
- Frequently represents municipalities on matters involving zoning or land use issues, Article 78 proceedings and complex litigation
- Former Town Attorney for the Town of Lewiston

Mark C. Davis | mdavis@lippes.com | 716-853-5100



LMWF's Article 10 Team – Benjamin E. Wisniewski



- Associate Attorney at Lippes Mathias Wexler Friedman LLP
- Focused on representing clients participating in the Article 10 Electric Generation facility siting process
- B.S. in Atmospheric Science from Cornell University
- U.S. Navy veteran. Served as an officer, navigator, and engineer
- Currently pursuing a Masters of Law at University at Buffalo Law School, focusing on Article 10, land use law, and environmental law

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