

JACOB J. OLESON
The University of Iowa
College of Public Health
Department of Biostatistics
Iowa City, IA 52242
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Citizenship: USA

EDUCATION:

Ph.D.	Statistics	University of Missouri – Columbia	2002
M.A.	Statistics	University of Missouri – Columbia	1999
B.A.	Mathematics	Central College (Pella, Iowa)	1997

EMPLOYMENT:

2015 – present	Director of Graduate Studies, Department of Biostatistics, The University of Iowa
2014 – present	Director – Center for Public Health Statistics – College of Public Health – The University of Iowa
2012 – present	Associate Professor – Department of Biostatistics – College of Public Health – The University of Iowa
2004 – 2012	Assistant Professor – Department of Biostatistics – College of Public Health – The University of Iowa
2002 – 2004	Assistant Professor – Department of Mathematics & Statistics – Arizona State University
2000 – 2002	Research Assistant – University of Missouri - Columbia; Missouri Department of Conservation
1999 – 2002	Research Assistant – University of Missouri - Columbia; Biostatistics.
1997 – 2000	Graduate Instructor – University of Missouri - Columbia

COURSES

TAUGHT:

The University of Iowa

- 171:161 – Introduction to Biostatistics (3 terms)
- 171:162 – Introduction to Biostatistics WWW (online) (4 terms; supervisor 10 terms)
- 171:162 – Design and Analysis of Biomedical Studies (6 terms; supervisor 6 terms)
- 171:241 – Applied Categorical Data Analysis (2 terms)
- 171:202 – Biostatistical Methods II (3 terms)
- 171:281 – Independent Study (Spatial Statistics, Survey Statistics, Multivariate Statistics)
- 171:290 – Advanced Biostatistics Seminar: Spatial Statistics for Public Health Data
- BIOS:6310 – Introductory Longitudinal Data Analysis (1 term, supervisor 1 term)
- BIOS:7310 – Longitudinal Data Analysis (2 terms)

Arizona State University

- STP 533 – Applied Multivariate Analysis
- STP 226 – Elementary Statistics
- STP 420 – Introduction to Applied Statistics
- STP 421 – Probability

University of Missouri-Columbia

- STAT 150 – Introduction to Business Statistics I
- STAT 250 – Introduction to Business Statistics II

REFEREED PUBLICATIONS:

1. Carrel M, Zahrieh D, Young S, **Oleson JJ**, Ryckman K, Wels B, Simmons DL, Saftlas A. High prevalence of elevated blood lead levels in Iowa newborns: spatial patterns and area-level covariates. Accepted *PLOS One*, 2017.
2. Gantz B, Dunn C, **Oleson JJ**, Hansen M. Acoustic plus electric speech processing longitudinal results. Accepted *The Laryngoscope*, 2017.
3. Scheperle RA, Tejani V, Omtvedt J, Brown C, Abbas P, Hansen M, Gantz B, **Oleson JJ**, Ozanne M. Delayed changes in auditory status in cochlear implant users with preserved acoustic hearing. *Hearing Research* 350: 45-57, 2017
4. Frishman N, Caspers-Conway K, Andrews J, **Oleson J**, Mathews K, Ciafaloni E, Oleszek J, Lamb M, Matthews D, Paramsothy P, McKirgan L, Romitti P. Perceived quality of life among caregivers of children with a childhood onset dystrophinopathy: A double ABCX model of caregiver stressors and perceived resources. *Health and Quality of Life Outcomes*. Accepted, 2017.
5. Dumanch K, Holte L, O'Hollearn T, Walker E, Clark J, **Oleson J**. High risk factors associated with early childhood hearing loss: A three-year review. *American Journal of Audiology*. Accepted, doi:10.1044/2017_AJA-16-0116, 2017.
6. Hall J, McGregor KK, **Oleson JJ**. Weaknesses in lexical-semantic knowledge among college students with specific learning disabilities: Evidence from a semantic fluency task. *Journal of Speech, Language and Hearing Research*. 60, 640-653, 2017.
7. Walker EA, Spratford M, Ambrose SE, Holte L, **Oleson JJ**. Service delivery to children with mild hearing loss: Current practice patterns and parent perceptions. *The American Journal of Audiology*. 26, 38-52, 2017.
8. **Oleson JJ**, Cavanaugh JE, Tomblin JB, Walker EA, Dunn CC. Combining growth curves when a longitudinal study switches measurement tools. *Statistical Methods in Medical Research*, 25, 2925-2938, 2016
9. VanBuren J, **Oleson JJ**, Zamba GKD, Wall M. Integrating independent spatio-temporal replications to assess population trends in disease spread. *Statistics in Medicine*. 35(28):5210-5221, 2016.
10. McGregor KK, Langenfeld N, Van Horne S, **Oleson JJ**, Anson M, Jacobson W. The university experiences of students with learning disabilities. *Learning Disabilities Research & Practice*, 31(2):90-102, 2016.
11. McCreery R, Walker E, Spratford M, Kirby B, **Oleson JJ**, Brennan M. Stability of audiometric thresholds for children with hearing aids applying the AAA Pediatric Amplification Guidelines: Implications for safety. *Journal of the American Academy of Audiology*, 27(3):252-263, 2016.
12. Driscoll VD, Welhaven AE, Gfeller K, **Oleson JJ**, Olszewski CP. Music Perception of Adolescents Using Electroacoustic Hearing. *Otology & Neurotology*, 37(2), e141-e147, 2016.
13. Porter AT, **Oleson JJ**. A spatial epidemic model for disease spread over heterogeneous spatial support. *Statistics in Medicine*, 35(5) 721-733 DOI: 10.1002/sim.6730, 2016.
14. Gantz B, Dunn C, **Oleson JJ**, Hansen M, Parkinson A, Turner C. Multicenter clinical trial of the Nucleus Hybrid S8 Cochlear Implant: Final Outcomes. *The Laryngoscope* 126(1): 175-181, 10.1002/lary.25572, 2016.
15. Harrison M, Page TA, **Oleson JJ**, Spratford M, Berry L, Peterson B, Welhaven A, Arenas RM, Moeller MP. Factors affecting early services for children who are hard of hearing *Language, Speech, and Hearing Services in Schools*, 47(1):16-30. PMID: 26440475, 2016
16. Brown GD, **Oleson JJ**, Porter AT. An empirically adjusted approach to reproductive number estimation for stochastic compartmental models: A case study of two Ebola outbreaks. *Biometrics*, 72(2): 335-343, DOI: 10.1111/biom.12432, 2016.

17. **Oleson JJ**, Cavanaugh JE, McMurray B, Brown G. Detecting time-specific differences between temporal nonlinear curves: Analyzing data from the visual world paradigm. Statistical Methods in Medical Research. PMID: 26400088, 2016.
18. Dixon BS, VanBuren JM, Rodrigue JR, Lockridge RS, Lindsay R, Pierratos A, Rocco MV, Oleson JJ, Paulsen JS, Stokes JB. Effect of frequent nocturnal hemodialysis or renal transplantation on cognition. BMC Nephrology, 2015.
19. Reynolds J Neighborhood and Family Social Capital and the Oral Health of Children in Iowa. American Journal of Public Health 43(6) 569-577, 2015.
20. Chrisman M, Nothwehr F, Janz K, Yang J, **Oleson JJ**. Perceived Resources and environmental correlates of domain-specific physical activity in rural Midwestern adults. Journal of Physical Activity and Health, 12(8). PMC: PMC4336828, PMID: 25153923, 2015.
21. Tomblin JB, Harrison M, Ambrose S, **Oleson JJ**, Walker EA, Moeller MP. Language outcomes in young children with mild to severe hearing loss. Ear and Hearing, 36(1S) 76S-91S, 2015.
22. McCreery R, Walker EA, Spratford M, Bentler R, Holte L, Roush P, **Oleson JJ**, VanBuren J, Moeller MP. Longitudinal predictors of aided speech audibility in infants and children. Ear and Hearing, 36(1S) 48S-59S, 2015.
23. McCreery R, Walker EA, Spratford M, **Oleson JJ**, Bentler R, Holte L, Roush P. Speech recognition and parent-ratings from auditory development questionnaires in children who are hard of hearing. Ear and Hearing, 36(1S) 60S-75S, 2015.
24. Ambrose S, Walker EA, Unflat-Berry LM, **Oleson JJ**, Moeller MP. Quantity and quality of caregivers' linguistic input to 18-month and 3-year-old children who are hard of hearing. Ear and Hearing, 36(1S) 48S-59S, 2015.
25. Walker EA, McCreery R, Spratford M, **Oleson JJ**, VanBuren J, Bentler R, Roush P, Moeller MP. Trends and predictors of longitudinal hearing aid use for children who are hard of hearing. Ear and Hearing, 36(1S) 38S-47S, 2015.
26. Drennan WR, **Oleson JJ**, Gfeller K, Crosson J, Driscoll VD, Won JH, Anderson ES, Rubinstein JT. Clinical evaluation of music perception, appraisal and experience in cochlear implant users. International Journal of Audiology , 54(2), 114-123, 2015.
27. Koehlinger K, Van Horne AO, **Oleson JJ**, McCreery R, Moeller MP. The role of sentence position, allomorph, and morpheme type on accurate use of s-related morphemes by children who are hard of hearing. Journal of Speech, Language, and Hearing Research, 58, 396-409, 2015.
28. Whipple CS, Gfeller K, Driscoll V, **Oleson JJ**, McGregor K. Do communications disorders extend to musical messages?: An answer from children with hearing loss or autism spectrum disorders. Journal of Music Therapy, 52(1), 78-116, 2015.
29. Kordus M, Tyler RS, Zera J, **Oleson JJ**. An influence of directional microphones on the speech intelligibility and spatial perception by cochlear implant users. Archives of Acoustics, 40(1), 81-92, 2015.
30. Val Abel KM, Dunn CC, Sladen DP, **Oleson JJ**, Beatty CW, Neff BA, Hansen M, Gantz BJ, Driscoll CL. Hearing preservation among patients undergoing cochlear implantation. Otology & Neurotology, 36(3), 416-421, 2015.
31. Bertrand LA, Warren GJ, Voelzke BB, Elliott SP, Myers JB, McClung CD, **Oleson JJ**, Erickson BA. Lower urinary tract pain and anterior urethral stricture disease: Prevalence and effects of urethral reconstruction. The Journal of Urology, 193(1), 184-189, 2015.
32. Chrisman M, Nothwehr F, Yang G, **Oleson JJ**. Environmental influences on physical activity in rural Midwestern adults: A qualitative approach. Health Promotion Practice, 16(1), 142-148, 2015.
33. Porter AT, **Oleson JJ**. A multivariate CAR model for mismatched lattices. Spatial and spatio-temporal epidemiology, 11, 79-88, 2014.
34. Kliethermes SA, **Oleson JJ**. A Bayesian approach to functional mixed effect modeling with binomial outcomes. Statistics in Medicine, 33, 3130-3146, 2014.

35. Porter AT, **Oleson JJ**, Stanier CO. On the Spatio-Temporal Relationship Between MODIS AOD and PM2.5 Particulate Matter Measurements. Journal of Data Science, 12(2), 2014.
36. Chrisman M, Nothwehr F, Yang G, **Oleson JJ**. Perceived correlates of domain-specific physical activity in rural adults in the Midwest. The Journal of Rural Health, 30 (4), 352-358, 2014.
37. Anderson KR, **Oleson JJ**, Anthony TR. Variability in coefficient of restitution in human facial skin. Skin Research and Technology, 20(3), 355-362, 2014.
38. Kopelovich JC, Reiss LA, **Oleson JJ**, Lundt ES, Gantz BJ, Hansen MR. Risk factors for loss of ipsilateral residual hearing after Hybrid cochlear implantation. Otology & Neurotology. 35(8), 1403-1408, 2014.
39. Ambrose SE, Berry LM, Walker EA, Harrison M, **Oleson JJ**, Moeller MP. Speech sound production in two-year-olds who are hard of hearing. American Journal of Speech-Language Pathology, 23(2), 91-104, 2014.
40. Tomblin JB, **Oleson JJ**, Ambrose S, Walker E, Moeller MP. The influence of hearing aids on speech and language development in children with hearing loss. Journal of the American Medical Association: Otolaryngology, 140(5), 403-409, 2014.
41. Walker EA, Holte L, Spratford M, **Oleson JJ**, Welhaven A, Harrison M. Timeliness of Service Provision for Children with Late-identified Mild to Severe Hearing Loss. The American Journal of Audiology, 23, 116-128, 2014.
42. Dunn CC, Walker EA, **Oleson JJ**, Kenworthy M, Van Voorst T, Tomblin JB, Ji H, Kirk KI, McMurray B, Hanson M, Gantz BJ. Longitudinal Speech Perception and Language Performance in Pediatric Cochlear Implant Users: the Effect of Age at Implantation. Ear and Hearing, 35 (2), 148-160, 2014.
43. Smith RS, Driscoll VD, Gfeller K, Kliethermes SA, **Oleson JJ**. Speech Intonation and Melodic Contour Recognition in Children with Cochlear Implants and with Normal Hearing. Otology and Neurotology, 34(3), 490-498, 2013.
44. McGregor K, **Oleson JJ**, Bahnsen A. Children with Developmental Language Impairment Have Vocabulary Deficits Characterized by Limited Breadth and Depth. International Journal of Language & Communication Disorders. 48: 307-319, 2013.
45. Walker EA, Spratford M, Moeller MP, **Oleson JJ**, Ou H, Roush P, Jacobs S. Predictors of hearing aid use time in children with mild-severe hearing loss. Language, Speech, and Hearing Services in Schools, 44, 73-88, 2013.
46. **Oleson JJ**, Kumar N, Smith BJ. Spatio-temporal modeling of irregularly spaced Aerosol Optical Depth data. Environmental and Ecological Statistics. 20, 297-314, 2013.
47. Porter AT, **Oleson JJ**. A path-specific SEIR model for use with general latent and infectious time distributions. Biometrics. 69: 101-108, 2013.
48. **Oleson JJ**, Wikle CK. Predicting infectious disease outbreak risk via migratory waterfowl vectors. Journal of Applied Statistics. 40. 656-673, 2013.
49. Gfeller K, Turner C, **Oleson JJ**, Kliethermes SA, Driscoll V, Gantz BJ. Accuracy of cochlear implant recipients on speech reception in background music. Annals of Otology, Rhinology & Laryngology. 121, 782-791, 2012.
50. Stanier C, Singh A, Adamski W, Baek J, Caughey M, Carmichael G, Edgerton E, Kenski D, Koerber M, **Oleson J**, Rohlf T, Lee SR, Riemer N, Shaw S, Sousan S, Spak S. Overview of the LADCO Winter Nitrate Study: Hourly ammonia, nitric acid and PM2.5 composition at an urban and rural site pair during PM2.5 episodes in the U.S. Great Lakes Region. Atmospheric Chemistry & Physics. 12: 11037-11056, 2012.
51. Holte L, Walker E, **Oleson J**, Spratford M, Moeller MP, Roush P, Tomblin JB. Factors influencing follow-up to newborn hearing screening for infants who are hard-of-hearing. American Journal of Audiology. 21: 163-174, 2012 PMID: 22585937
52. Gfeller K, Jiang D, **Oleson JJ**, Driscoll V, Olszewski C, Knutson JK, Turner C, Gantz BJ. The effects of musical and linguistic components in recognition of “real-world” musical excerpts by

- cochlear implant recipients and normal hearing adults. Journal of Music Therapy, 49: 68-101, 2012.
53. Jiang D, **Oleson JJ**. Simulation study of power and sample size for repeated measures with multinomial outcomes: An application to sound direction identification experiments (SDIE). Statistics in Medicine, 30(19):2451-2466, 2011. PMID: 21751232 NIHMSID: 355820
 54. Vosburgh DJH, Boysen DA, **Oleson JJ**, and Peters TM. Airborne particle concentrations in the manufacturing of polytetrafluorethylene (PTFE). Journal of Occupational & Environmental Hygiene, 8(3):139-146, 2011. PMID: 21347955
 55. Woodson EA, Dempewolf RD, Gubbels SP, Porter AT, **Oleson JJ**, Hansen MR, Gantz BJ. Long-term hearing preservation following microsurgical excision of vestibular Schwannoma. Otology & Neurotology, [Epub ahead of print], July 31, 2010. PMID: 20679955
 56. Gfeller K, Jiang D, **Oleson JJ**, Driscoll V, Knutson JF. Temporal stability of music perception and appraisal scores of adult cochlear implant recipients. Journal of the American Academy of Audiology, 21(1):28-34, 2010. PMID: 20085197 PMCID: PMC2844251
 57. Brown C, Abbas P, Etler C, O'Brien S, **Oleson J**. Effects of long-term use of a cochlear implant on the electrically evoked compound action potential. Journal of the American Academy of Audiology, 21(1): 2010. PMID: 20085195 PMCID: PMC2881552
 58. **Oleson JJ**. Bayesian credible intervals for binomial proportions in a single patient trial. Statistical Methods in Medical Research, 19(6):559-574, 2010. PMID: 20181779 NIHMSID: 355814
 59. Gantz BJ, Hansen MR, Turner CW, **Oleson JJ**, Reiss LA, Parkinson AJ, Hybrid 10 clinical trials: Preliminary results. Audiology and Neurotology, 14 Suppl 1:32-38, 2009. PMID: 19390173 PMCID: PMC3010181 *Awarded Top Cited Paper Impact Factor 2011.*
 60. Driscoll V, **Oleson JJ**, Jiang D, and Gfeller KG. The effects of training on recognition of musical instruments presented through cochlear implant simulations. Journal of the American Academy of Audiology, 20(1):71-82, 2009. PMID: 19927684 PMCID: 2784659
 61. **Oleson JJ**, Breheny PJ, Pendergast JF, Ryan S, Litchfield RE, Myers-Gaedelmann J. Impact of travel distance on WISEWOMAN intervention attendance for a rural population. Preventive Medicine, 47:565-569, 2008. PMID: 18672000
 62. Smith BJ and **Oleson JJ**. Geostatistical hierarchical model for temporally integrated data measured with error. Journal of Agricultural, Biological, and Environmental Statistics, 13:140-158, 2008.
 63. Spencer L and **Oleson JJ**. Early listening and speaking skills predict later reading proficiency in pediatric cochlear implant users. Ear and Hearing, 29(2):270-280, 2008. PMID: 18595191 PMCID: PMC3210570
 64. Gfeller KG, **Oleson JJ**, Knutson JF, Breheny P, Driscoll V, Olszewski C. Multivariate predictors of music perception and appraisal by adult cochlear implant users. Journal of the American Academy of Audiology, 19(2):120-134, 2008. PMID: 18669146 (*Audiology Literature Best of 2008: Cochlear Implants, The Hearing Journal*) PMCID: PMC167551
 65. Kim H and **Oleson JJ**. A Bayesian dynamic spatio-temporal interaction model: An application to prostate cancer incidence. Geographical Analysis, 40:77-96, 2008.
 66. **Oleson JJ** and He CZ. Adjusting nonresponse bias at subdomain levels using multiple response phases. Biometrical Journal, 50(1):58-70, 2008. PMID: 1784938
 67. Tyler RS, **Oleson JJ**, Noble W, Coelho C, Ji H. Clinical trials for tinnitus: Study populations, designs, measurement variables, and data analysis. Progress in Brain Research, 166:499-509, 2007.
 68. **Oleson JJ**, He CZ, Sun D, and Sheriff S. Bayesian estimation in small areas when the sampling sub-domain differs from the study sub-domain. Survey Methodology, 33:173-186, 2007.
 69. Gfeller K, Turner C, **Oleson JJ**, Zhang X, Gantz B, Froman R, Olszewski C. Accuracy of Cochlear Implant Recipients on Pitch Perception, Melody Recognition, and Speech Reception in

- Noise. Ear and Hearing, 28(3):412-423, 2007. PMID: 17485990
70. **Oleson JJ**, Smith BJ, Kim H. Joint spatio-temporal modeling of low incidence cancers sharing common risk factors. Journal of Data Science, 6(1):105-123, 2007.
 71. Gfeller KE, Olszewski C, Turner C, Gantz B and **Oleson JJ**. Music perception with cochlear implants and residual hearing. Audiology & Neurotology 11 Suppl 1:12-15, 2006. PMID: 17063005
 72. **Oleson JJ**, Hope D, Gries C and Kaye J. Estimating soil properties in heterogeneous land-use patches: A Bayesian approach. Environmetrics, 17:517-525, 2006.
 73. Hope D, Gries C, **Oleson JJ**, Kaye J, Jenerette D, Zhu W, Grimm N and Baker L. Spatial variation in soil inorganic nitrogen across an arid urban ecosystem. Urban Ecosystems 8:251-273, 2005.
 74. Blinn-Pike L, Berger TJ, Hewett JE, and **Oleson JJ**. Sexually abstinent adolescents: An 18 month follow-up. Journal of Adolescent Research 19:495-511, 2004.
 75. **Oleson JJ** and He CZ. Hierarchical Bayesian modeling in dichotomous processes in the presence of nonresponse. Biometrics 60:50-59, 2004. PMID: 15032773
 76. **Oleson JJ** and He CZ. Space-time modeling for the Missouri Turkey Hunting Survey. Environmental and Ecological Statistics 11:85-101, 2004.
 77. Cavanaugh JE and **Oleson JJ**. A diagnostic for assessing the influence of cases on the prediction of missing data. Journal of the Royal Statistical Society D. 50:1-14, 2001.

SUBMITTED PUBLICATIONS:

1. Hall J, McGregor KK, **Oleson JJ**. The semantic fluency of college students with developmental language impairments. *Journal of Speech, Language, and Hearing Research (In Revision)*.
2. Seedorff M, **Oleson JJ**, McMurray B. Detecting when timeseries differ: Using the Bootstrapped Differences of Timeseries (BDOTS) to analyze visual world paradigm data (and more). *Journal of Memory and Language (In Revision)*.
3. McGregor KK, Gordon K, Eden N, Arbisi-Kelm T, **Oleson JJ**. Encoding deficits impede declarative learning and memory in adults with developmental language disorders. *Journal of Speech, Language, and Hearing Research (In Revision)*.
4. Wu Y, Stangl E, Chipara O, Shabih-Hasan S, **Oleson J**. Modeling real-world speech listening situations for adults with mild-to-moderate hearing loss. *Submitted*.
5. Harrison M, Page T, **Oleson JJ**, Spratford M, Arenas R, Peterson B, Moeller M. Factors affecting services for pre-school and school-age children who are hard of hearing. *Submitted*.
6. Brown GD, Porter AT, **Oleson JJ**. Approximate Bayesian computation for spatial SEIR(S) epidemic models. *Submitted*.
7. Arenas RM, Walker E, **Oleson JJ**. Developmental stuttering in children who are hard of hearing. *Language, Speech, and Hearing Services in Schools (In Revision)*.
8. Walker EA, Ambrose SE, **Oleson JJ**, Moeller MP. False Belief Development in children who are hard of hearing compared to peers with normal hearing. *Journal of Speech, Language, and Hearing Research (In Revision)*.
9. Tomblin JB, **Oleson JJ**, Ambrose SE, Walker EA, Moeller MP. Examining reading resilience in children who are hard of hearing. *Submitted*.
10. Bayesian point process modeling to quantify excess risk. Zahrieh D, **Oleson JJ**, Romitti P. *Submitted*.

NON-PEER REVIEWED:

1. Gfeller K, Buzzell A, Driscoll V, Kinnaird B, Oleson J. The Impact of Voice Range and Instrumental Background Accompaniment on Recognition of Song Lyrics. 7th Asia Pacific Symposium on Cochlear Implants and Related Sciences, *Proceedings*. Singapore, December 2009.
2. 2009 Iowa Health Fact Book, University of Iowa College of Public Health and the Iowa Department of Public Health. Oleson JJ (Ed.) July 2009.
3. 2007 Iowa Health Fact Book, University of Iowa College of Public Health and the Iowa Department of Public Health. Oleson JJ (Ed.) July 2007.
4. Hope D, Gries D, Warren P, Katti M, Stuart G, Oleson J, Kaye J. How do humans restructure the biodiversity of the Sonoran desert? In: Connecting Mountain Islands and Desert Seas: Biodiversity and Management of the Madrean Archipelago II, 2004 May 11-15, Tucson, AZ. *USDA Forest Service Proceedings RMRS-P-26*: 189-194 (Fort Collins, CO), 2005.
5. 2005 Iowa Health Fact Book, University of Iowa College of Public Health and the Iowa Department of Public Health. Oleson JJ (Ed.) July 2005.
6. Machabée LG, Oleson JJ, and Kinzig AP. Neighborhood park uses by Phoenix residents: An exploration of socio-demographic differences. Conference proceeding of the George Wright Society Biennial Conference on Parks, Protected Areas, and Cultural Sites, Philadelphia, PA, 2005.

BOOK REVIEWS:

- Congdon, Peter. “Bayesian Statistical Modelling”, 2nd ed. JASA Reviews, Mattson Publishing. 2007

GRANT SUPPORT:

Principal Investigator:

- Oleson JJ; NIH R01 TW010500, “Epidemic Modeling Framework for Complex, Multi-Species Disease Process and the Impact of Vertical and Vector Transmission”; \$2,499,599 total; 5% effort; 2016-2021.
- Oleson, JJ; Boys Town National Research Hospital R01 DC015056; “A Test of Children’s English/Spanish Speech Perception in Noise or Speech Maskers”; \$48,850 total (Subcontract); 10% effort; 2016-2017.
- Oleson JJ; Iowa Department of Public Health Contract #5887NB90, “Screening Data Management”, \$5,775,433 total; 7% effort; 2015-2017.
- Oleson JJ, American Statistical Association, Biometrics Section, “Developing the Next Generation of Biostatisticians: The Iowa Field of Dreams Conference”; \$3,000 total; 2008-2009.
- Oleson JJ, College of Liberal Arts and Sciences, Arizona State University, “Bayesian Modeling for Survey Nonresponse”; \$6,000 total; 2004.
- Oleson JJ; “Central Area Phoenix-Long Term Ecological Research Program”, \$6,000 total; 2004.
- Oleson JJ; “Central Area Phoenix-Long Term Ecological Research Program”, \$6,000 total; 2003.

Co-Investigator:

- Zamba GK, NIH R25 HL131467, “Iowa Summer Institute for Research Education in Biostatistics”; \$993,833 total; 0% effort (Mentor); 2016-2019.
- Gantz B, NIH-NIDCD P50 DC000242, “Iowa Cochlear Implant Clinical Research Center Project VI”; \$50,812,878 total; 15% effort; 1985-2017
- Romitti P, CDC RFA-DD14-001/U01 DD001119, “Surveillance and Research of Muscular Dystrophies and Neuromuscular Disorders, Component A: Core (Existing MD Surveillance and Research Programs)”; \$1,434,996 total; 5% effort; 2014-2019.
- Romitti P, CDC U01 DD001035, “Birth Defects Study to Evaluate Pregnancy ExposureS”; \$2,695,000 total; 5% effort; 2013-2018.

- Tomblin JB, NIH R01 DC009560, “Outcomes of School Aged Children Who are Hard of Hearing”, \$14,746,618 total; 15% effort; 2013-2018.
- Chaloner K, NIH T15 HL097622, “Iowa Summer Institute in Biostatistics”, \$1,277,170 total; 4% effort; 2013-2016.
- McGregor K, NIH R01 DC011742, “Memory and Word Learning”, \$2,586,971 total; 8% effort; 2012-2017.
- Chaloner K, NIH T15 HL097622, “Iowa Summer Institute in Biostatistics”, \$1,277,170 total; 8% effort; 2009-2012.
- Stokes J, NIH R01 DK074715, Cognitive Function in Dialysis Patients: Ancillary Study to the FHN Trial, \$2,187,588 total; 5 % effort; 2006-2012.
- Tomblin JB, NIH R01 DC009560, “Moderators of Functional Outcomes in Children with Mild to Severe Hearing Loss”, \$14,746,618 total; 15% effort; 2008-2013.
- Stanier C, US EPA RD-83386501, “Applying Data Assimilation and Adjoint Sensitivity to Epidemiological and Policy Studies of Airborne Particulate Matter”, \$899,401 total; 10% effort; 2008-2013.
- Gantz B, NIH P50 DC000242, Iowa Cochlear Implant Center Project V, \$50,812,878 total; 15% effort; 2006-2011.
- Pendergast JP, Social Security Administration, SSA-OPDR-03-01, “Smart Start”, 30% effort; 2004-2007.

Supporting/Biostatistician:

- McCreery R and Walker E, NIH R01 DC013591, “Complex Listening Skills in School-Age Children Who are Hard of Hearing”; \$531,572 total; 10% effort; 2013-2018.
- Hansen M, DOD/Iowa City Veterans Affairs Research Foundation, “Cochlear Implants”, \$4,734; 3% effort; 2014-2017.
- Gantz B, NIH P50 DC000242, “Iowa Cochlear Implant Center Project VI”, \$50,812,878 total; 15% effort; 2012-2017.
- Brown CB and Abbas P, NIH R01 DC12082, “Evoked Potential and Music Perception: Effects of Hearing Loss and Training”; \$946,581 total; consultant fees charged; 2012-2016.
- Pendergast JP, Iowa Department of Public Health, Breast and Cervical Cancer, Early Detection Program, Data and Entry Analysis, WISEWOMAN Enhanced Study Design; \$100,000 total; 10% effort; 2009-2010.
- Kumar N, NIH R21 ES014004, “Mortality and Air Quality Regulation in Two Indian Cities”; \$289,486 total; 15% effort; 2009-2010.
- Gantz B, NIH, “Research Training Program for Otolaryngology”, \$4,963,306 total; 0% effort; 2008-2009.
- Chaloner K, NIH T32 GM077973, “Statistics in Microbiology, Infectious Diseases, & Bioinformatics”; \$643,511 total; 0% effort (Mentor); 2006-2011.

INVITED TALKS:

Oleson JJ (September 2016) Understanding health data and overview of the Iowa Health Fact Book. Iowa Health Fact Book: Tapping Iowa health data for news reporting, Iowa City, Iowa.

Oleson JJ (April 2016) Making connections: The value and values of public health. Iowa Public Health Association, Des Moines, Iowa.

Oleson JJ (February 2014) A spatio-temporal model for infectious disease spread applied to a mumps epidemic. Department of Geographical and Sustainability Sciences Colloquium, University of Iowa, Iowa City, Iowa.

Oleson JJ (October 2013) A path specific approach to spatial SEIR modeling. Department of Statistics and Actuarial Science Colloquium, University of Iowa, Iowa City, Iowa.

Oleson JJ (October 2013) The Science of Uncertainty. Mathematics Colloquium, Coe College. Cedar Rapids, Iowa.

Oleson JJ (September 2013). Modeling speech recognition through longitudinal fixation curves resulting from eye-tracking data. Frontiers in Methodological and Applied Statistics, Department of Statistics, University of Missouri, Columbia, Missouri.

Oleson, JJ. (March 2012). Modeling the longitudinal change in speech recognition ability of Cochlear Implant users. Midwest Statistics Research Colloquium. Madison, Wisconsin.

Oleson, JJ. (February 2012). The Wide Wide World of Biostatistics. Mathematics Department Colloquium, Coe College. Cedar Rapids, Iowa.

Oleson, JJ, Breheny, P, and Pendergast, J. (September 2009). Impact of travel distance on WiseWOMAN intervention attendance for a rural population. CDC, Atlanta, Georgia.

Oleson, JJ. (August 2009). An interactive web-based introduction to biostatistics for health practitioners. Joint Statistical Meetings, Washington D.C.

Oleson JJ. (March 2007) The role of a biostatistician: Boundless research opportunities. Plenary speaker at Midwest Undergraduate Mathematics Symposium. Simpson College, Indianola, Iowa.

Oleson, JJ. (March 2007) Mapping of cancers in Iowa that are related to excessive alcohol and tobacco use. Plenary speaker at Midwest Undergraduate Mathematics Symposium. Simpson College, Indianola, Iowa.

Oleson, JJ. (February 2007) Joint spatio-temporal modeling of low incidence cancers sharing common risk factors. Department of Statistics Colloquium, Iowa State University, Ames, Iowa.

Oleson, JJ. (August 2006) Joint spatio-temporal modeling of low incidence cancers sharing common risk factors. Department of Statistics and Actuarial Science Colloquium, University of Iowa, Iowa City, Iowa.

Oleson, JJ. (February 2005). Bayesian spatial models for wildlife harvests with stratification: Application to the Missouri Turkey Hunting Survey. University of Iowa. Department of Geography. Iowa City, Iowa.

Oleson, JJ. (October 2004). A Bayesian approach to modeling survey nonresponse. University of Minnesota. Department of Biostatistics. Minneapolis, Minnesota.

Oleson, JJ., and He. CZ. (August 2004). Bayesian estimates for survey nonresponse. Invited Poster Session at Joint Statistical Meetings, Toronto, Canada.

Oleson, JJ., He, CZ., and Sun, D (November 2003). Bayesian estimates of small areas under pre- and post-stratification: An application to the 1998 Missouri Turkey Hunting Survey. University of Chicago, Department of Health Studies, Chicago, Illinois.

Oleson, JJ., He, CZ., and Sun, D (July 2003). Bayesian estimates of small areas under pre- and post-stratification. Sixth North American Meeting of New Researchers, Davis, California.

Oleson, JJ. and Cavanaugh, JE. (November 2002). A diagnostic for assessing the influence of cases on the prediction of missing data. Arizona Chapter of the American Statistical Association, Tempe, Arizona.

Oleson, J., He, CZ., and Sun, D. (September 2001). Small area estimation for pre- and post-stratified data. The Wildlife Society Annual Meeting, Reno, Nevada.

CONTRIBUTED

TALKS:

Oleson JJ. and Wikle C. (March 2011). Predicting infectious disease outbreak carried by migratory waterfowl. Topic Contributed Session at Joint Statistical Meetings, Miami, Florida.

Oleson, JJ., Kumar N, Smith B (March 2008). A spatio-temporal model for irregularly spaced Aerosol Optical Depth data. ENAR, Alexandria, Virginia.

Oleson JJ. and Kim H (August 2006). A Bayesian dynamic spatio-temporal interaction model. Joint Statistical Meeting. Seattle, Washington.

Oleson, JJ. Hope, D., Gries, C. and Kaye, J. (August 2004) Spatial variation in soil nitrate and carbon levels in metropolitan Phoenix and the surrounding deserts. Topic Contributed Session at Joint Statistical Meetings, Toronto, Canada.

Oleson, JJ., He, C.Z., and Sun, D (August 2003) Bayesian estimates of small areas under pre- and post-stratification. Topic Contributed Session at Joint Statistical Meetings, San Francisco, California.

Oleson, JJ., He, C. Z., and Sun, D. (August 2001). Bayesian spatial models for wildlife harvests with stratification. Topic Contributed Session at Joint Statistical Meetings, Atlanta, Georgia.

Oleson, JJ., He, C. Z., and Sun, D. (September 2001). Estimating hunting success rates using spatial correlations. The Wildlife Society Annual Meeting, Reno, Nevada (poster).

R PACKAGES:

- Seedorff MS, Oleson JJ, Brown G, Cavanaugh JE, McMurray B. Bootstrapped Differences of Time Series (BDOTS). Available on CRAN.
- Brown G, Oleson JJ. ABSEIR. Available on Github.

STUDENT ADVISING: The University of Iowa

- Have served on 33 PhD committees (non-chair) (Biostatistics (11), Audiology (1), Nursing (3), Occupational & Environmental Health (3), Otolaryngology (2), Music (3), Psychology (1), Chemical & Biochemical Engineering (1), Community & Behavioral Health (1), Communications Sciences & Disorders (2), Pharmacy (1), Statistics & Actuarial Science (1), Marketing (1), Epidemiology (1), Environmental Studies (1))
- Have served on 4 MS committees (2 Epidemiology, Geography, Dental Public Health)
- Supervisor for Biostatistics Preceptorships (20 students)
- Supervisor for Iowa Summer Institute in Biostatistics 2008 – present (17 students, 7 groups)

Arizona State University

- Served on 2 PhD committees
- Served on 2 MA committees

DOCTORAL DISSERTATIONS DIRECTED:

- Aaron Porter, “A Path-Specific Approach to SEIR Modeling,” Department of Biostatistics, University of Iowa. Defended May 2012.
- Stephanie Kliethermes, “Bayesian Functional Mixed Effects Modeling for Longitudinal Growth Curves.” Department of Biostatistics. University of Iowa. Defended May 2013.
- Grant Brown, “Application of Heterogeneous Computing Techniques to Compartmental Spatiotemporal Epidemic Models.” Biostatistics, University of Iowa, Defended May 2015.

- Melissa Pugh, “A Bayesian Approach to Detect Time-Specific Group Differences Between Nonlinear Temporal Curves.” Department of Biostatistics, University of Iowa, Defended May 2016.
- John VanBuren, “Integrating Independent Spatio-Temporal Models to Assess Population Trends.” Biostatistics, University of Iowa, Defended May 2016.
- David Zahrieh, “Bayesian point process modeling for environmental epidemiology.” Biostatistics, University of Iowa, Anticipated May 2017
- Lauren Sager, (co-advisor Dan Sewell), Biostatistics, University of Iowa, Anticipated May 2018
- Michael Seedorff, Biostatistics, University of Iowa, Anticipated May 2018
- Marie Ozanne (co-advisor Grant Brown), Biostatistics, University of Iowa, Anticipated May 2019

EDITORIAL ACTIVITIES:

- Referee for *The Journal of Official Statistics*; *Statistics in Medicine*; *Survey Methodology*; *Annals of Epidemiology*; *Environmental and Ecological Statistics*; *Journal of Speech, Language, and Hearing Research*; *Journal of Statistical Planning and Inference*; *Substance Abuse Treatment, Prevention and Policy*; *Journal of Agricultural, Biological, and Environmental Statistics*; *Soil Sciences Society of America Journal*; *Journal of Applied Statistics*; *Spatial Statistics*; *Applied Spatial Analysis and Policy*; *American Journal of Audiology*; *Journal of Spatial and Spatio-Temporal Epidemiology*; *Communications in Statistics-Case Studies and Data Analysis*, *American Journal of Tropical Medicine & Hygiene*, *Pediatrics*
- Statistical consultant for *Journal of Speech Language, and Hearing Research* (2007-2010)
- Reviewer for grant proposals submitted to the National Science Foundation
- Reviewed textbooks: Kokoska’s *Introductory Statistics: A Problem Solving Approach*, Mann’s *Introductory Statistics 5e*, Kinney’s *Probability*.

PROFESSIONAL

ORGANIZATIONS: **American Statistical Association**, Section of Bayesian Statistical Science, Section of Survey Research Methods, Section of Statistics & The Environment, Biometrics Section, Iowa Chapter, Section of Teaching Statistics in the Health Sciences **Institute of Mathematical Statistics**, **International Biometric Society**, Eastern North American Region

PROFESSIONAL SERVICE:

The University of Iowa

- Director of Graduate Studies, Department of Biostatistics (2015 – present)
- Chair of the Admissions Committee, Department of Biostatistics (2012 – 2016).
- Member of the Recruitment and Admissions Committee (2005 – 2012)
- Member of MS Exam committee (2004-2013)
- Chair MS Exam Committee (Fall 2009, Fall 2012)
- Member PhD Exam Committee (2014)
- Chair PhD Exam Committee (2015, 2016)
- Member of the internal College of Public Health review committee to evaluate the Department of Community and Behavioral Health (2007)
- Member of the internal College of Public Health review committee to evaluate the Department of Occupational and Environmental Health (2012)
- Biostatistician for the Iowa Cochlear Implant Center (2005 – current)
- Biostatistician for multi-site Outcomes of Children with Hearing Loss (2007 – current)
- Member of Biostatistics Computing Committee (2005-2008)
- Member College of Public Health Computation & Informatics Committee (2005-2007)
- Member Biostatistics Diversity Committee (2007 – current)
- Co-chair College of Public Health Distance Learning and Continuing Education Committee (2007-2011)

- Judge for 2007 Outstanding Graduate Student as Mentors Award (2007)
- Judge for Alliance for Graduate Education and Professoriate Presentations (2007)

Arizona State University

- Member of 2 PhD committees
- Member of 2 MA committees
- Undergraduate advisor for statistics (2003-2004)
- Member panel discussion exposing different areas of mathematical sciences to graduate students (2003)
- Member of Committee on Statistics (2002–2004)
- Member of Department of Mathematics & Statistics undergraduate committee (2002–current)
- Member of Department of Mathematics & Statistics computing facilities committee (2003–2004)

University of Missouri – Columbia

- President 2 years, Vice-President 1 year, and member 5 years Statistics Graduate Student Association
- Member Department of Statistics Alumni/Public Relations Committee (1999 – 2001)
- Member Department of Statistics Computing Committee (2001)

AWARDS:

The University of Iowa

- 2016 Editors of Ear and Hearing, Special Recognition Award to the Outcomes in Children with Hearing Loss Supplement
- 2015 Inducted into Delta Omega Honorary Society in Public Health.
- 2012 Editors’ Award for the *American Journal of Audiology* for article “Factors Influencing Follow-up to Newborn Hearing Screening for Infants Who Are Hard of Hearing.”
- Recipient of the College of Public Health Faculty Award for Teaching (2012).
- Top Cited Paper Impact Factor for 2011(Hybrid 10 Clinical Trial), Audiology & Neurotology
- Recipient of Thank a Teacher note of appreciation through Center for Teaching (2008, 2009, 2010, 2013)
- One of the Best Papers of 2008 Audiology Literature, Cochlear Implants.

University of Missouri – Columbia

- Recipient of the Donald K. Anderson Graduate Research Assistant Award (2002) –one of 2 campus-wide
- Recipient of the Donald K. Anderson Graduate Student Teaching Award (2000)

Central College

- Intercollegiate Athletics – Basketball, 4 yr letter-winner