

**JACOB J. OLESON**  
The University of Iowa  
College of Public Health  
Department of Biostatistics  
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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:**

2018 – present	Professor – Department of Biostatistics – College of Public Health – The University of Iowa
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 – 2018	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**

- 171:162 – Introduction to Biostatistics WWW (online) (4 terms; supervisor 10 terms)
- 171:162 – Design and Analysis of Biomedical Studies (6 terms; supervisor 7 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 (1 term)
- BIOS:4120 (171:161) – Introduction to Biostatistics (4 terms)
- BIOS:6310 – Introductory Longitudinal Data Analysis (1 term, supervisor 1 term)
- BIOS:7310 – Longitudinal Data Analysis (3 terms)
- BIOS:7600 – Advanced Biostatistics Seminar: Spatial Biostatistics (1 term)
- BIOS:6420 – Survey Design and 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. Weeks KS, Lynch CF, West MM, Carnahan RM, O'Rourke M, **Oleson JJ**, McDonald ME, Charlton ME. Impact of surgeon type and rurality on treatment and survival of ovarian cancer patients. American Journal of Clinical Oncology. 2021
2. Tejani V, Yang H, Kim JS, Hernandez H, **Oleson JJ**, Hansen M, Gantz B, Abbas P, Brown C. Access and polarization electrode impedance changes in relation to delayed loss of acoustic hearing in electrode-acoustic stimulation cochlear implant users. Journal of the Association for Research in Otolaryngology. 2021
3. Calandruccio L, Beninate I, **Oleson JJ**, Miller M, Leibold LJ, Buss E, Rodriguez BL. A simplified approach to quantifying a child's bilingual language experience. American Journal of Audiology. 2021
4. Thomas A, Ambrose S, Marvin C, **Oleson JJ**, Moeller MP. Evaluation of Parent-Researcher Agreement on the Vocal Development Landmarks Interview. Journal of Speech, Language, and Hearing Research. 64(7): 2623-2636, 2021.
5. Jay M, **Oleson JJ**, Charlton M, Arab A. A Bayesian approach for estimating age-adjusted rates for low prevalence diseases over space and time. Statistics in Medicine 40(12): 2922-2038, 2021.
6. Tejani VD, Kim JS, **Oleson JJ**, Abbas PJ, Brown CH, Hansen MR, Gantz BJ. Residual electrocochleography responses in electric acoustic stimulation cochlear implant users with complete loss of acoustic hearing post-implant. Journal of the Association for Research in Otolaryngology. 22(2): 161-176, 2021.
7. Jett B, Buss E, Best V, **Oleson J**, Calandruccio L. Does sentence-level coarticulation affect speech-recognition in noise or a speech masker? Journal of Speech, Language, and Hearing Research. 64(4): 1390-1403, 2021.
8. Bayman EO, **Oleson JJ**, Rabbitts JA. AAAPT: Assessment of the Acute Pain Trajectory. Pain Medicine. 22(3): 533-547, 2021
9. Jorgensen EJ, Stangl E, Chipara O, Hernandez H, **Oleson J**, Wu YH. GPS predicts stability of listening environment characteristics in one location over time among older hearing aid users. International Journal of Audiology. 60(5): 328-340, 2021.
10. Urbanski D, Hernandez H, **Oleson J**, Wu YH. Toward a new evidence-based fitting paradigm for over-the-counter hearing aids. American Journal of Audiology. 30(1): 43-66, 2021.
11. Hendrickson K, **Oleson J**, Walker E. School-aged children adapt the dynamics of lexical competition in suboptimal listening conditions. Child Development 92(2): 638-649, 2021.
12. Ward C, **Oleson J**, Tomblin JB, Walker E. Modeling population and subject specific growth in a latent trait measured by multiple instruments over time using a hierarchical Bayesian framework. Journal of Applied Statistics. (Accepted) 2020.
13. Wu YH, Xu J, Stangl E, Pentony S, Vyas D, Chipara O, Gudjonsdottir A, **Oleson J**, Galster J. Why ecological momentary assessment surveys go incomplete: When it happens and how it impacts data. Journal of the American Academy of Audiology. 32(1):16-26, 2021.
14. Dunn CC, Stangl E, **Oleson J**, Smith M, Chipara O, Wu YH. The influence of forced social isolation on the auditory ecology and psychosocial functions of listeners with cochlear implants during COVID-19 mitigation efforts. Ear and Hearing. 42(1): 20-28, 2020.
15. Wasiuk PA, Lavandier M, Buss E, **Oleson J**, Calandruccio L. The effect of fundamental frequency contour similarity on multi-talker listening in older and younger adults. Journal of the Acoustical Society of America 148(6): 3527-3543, 2020.
16. Buss E, Calandruccio L, **Oleson J**, Leibold L. Contribution of stimulus variability to word recognition in noise vs two-talker speech for school-age children and adults. Ear and Hearing 42(2):313-322, 2020.

17. Douglas EH, Rhoads A, Thomas A, Aloji J, Suhl J, Lycan Jr T, **Oleson J**, Conway KM, Lynch CF, Romitti PA. Incidence and survival in reproductive-aged women with differentiated thyroid cancer: United States SEER18 2000-2016. Thyroid 30:1781-1792, 2020.
18. Wu YH, Stangl EA, Chipara O, Gudjonsdottir A, Oleson JJ, Bentler R. Comparison of in-situ and retrospective self-reports on assessing hearing aid outcomes. Journal of the American Academy of Audiology. 31(10): 746-762, 2020.
19. Ponto, LLB, Magnotta VA, Menda Y, Moser DJ, **Oleson JJ**, Harlynn E, DeVries SD, Schultz SK. Comparison of T1rho MRI, Glucose Metabolism, Cerebral Blood Flow and Amyloid Burden Across the Cognitive Spectrum: Pilot Study. The Journal of Neuropsychiatry 32(4): 352-361, 2020.
20. Dunn CC, **Oleson JJ**, Parkinson A, Hansen MR, Gantz B. Nucleus Hybrid S12: Multi-Center Clinical Trial Results. The Laryngoscope 130(10):E548-E558, 2020.
21. Mahachi K, Kontowicz E, Anderson B, Toepp AJ, Lima AL, Larson M, Wilson G, Grinnage-Pulley T, Bennett C, Ozanne M, Anderson M, Fowler H, Parrish M, Saucier J, Tyrrell P, Palmer Z, Buch J, Chandrashekar R, Scorza B, Brown G, **Oleson JJ**, Petersen CA. Predominant risk factors for tick-borne coinfections in US hunting dogs. Parasites & Vectors. 13:247.
22. McGregor K, Eden N, Arbisi-Kelm T, **Oleson JJ**. The fast mapping abilities of adults with developmental language disorder. Journal of Speech, Language, and Hearing Research. 63(9): 3117-3129, 2020.
23. Thomas A, Rhoads A, Pinkerton E, Conway KM, Hundley WG, McNally LR, **Oleson J**, Melin SA, Lynch CF, Romitti PA. Incidence and survival by human epidermal growth factor receptor-2 status in young women with stage I-III breast cancer: SEER 2010-2015 Clinical Breast Cancer. 20(4): E410-E422, 2020.
24. Ozanne M, Brown G, Toepp A, Scorza B, **Oleson J**, Wilson M, Petersen C. Bayesian compartmental models and associated reproductive numbers for an infection with multiple transmission models. Biometrics. 76: 711-721, 2020.
25. Vicente M, Miller M, Browning J, **Oleson J**, Leibold LJ. Language proficiency and dominance considerations when working with Spanish-English bilingual adults. The American Journal of Audiology, 28(3):724-729, 2019.
26. Tomblin B, **Oleson J**, Ambrose SE, Walker EA, McCreery RW, Moeller, MP. Aided Hearing Moderates the Academic Outcomes of Children with Mild to Severe Hearing Loss. Ear and Hearing. 41(4):775-789 2020.
27. McGregor KK, Arbisi-Kelm T, Eden N, **Oleson J**. The word learning profile of adults with developmental language disorder. Autism & Developmental Language Impairments. 5, 1-19, 2020.
28. Walker E, Sapp C, Dallapiazza M, Spratford M, McCreery R, **Oleson J**. Language and reading outcomes in fourth-grade children with mild hearing loss compared to age-matched hearing peers. Language, Speech, and Hearing Services in Schools 51, 17-28, 2020.
29. Tomblin JB, **Oleson JJ**, Ambrose SE, Walker EA, Moeller MP. Early Literacy Predictors and Second Grade Reading Outcomes in Children who are Hard of Hearing. Child Development 91, e179-e197, 2020.
30. McCreery R, Stiles D, Spratford M, Oleson J, Lewis D. Audibility-based hearing aid fitting criteria for children with mild bilateral hearing loss. Language, Speech, and Hearing Services in Schools. 51(1), 55-67, 2020.
31. Calandrucchio L, Wasiuk P, Buss E, Leibold L, Kong J, Holmes A, **Oleson J**. The effect of target/masker fundamental frequency contour similarity on masked-speech recognition. Journal of the Acoustical Society of America. 146, 1065, 2019.
32. Miller MK, Calandrucchio L, Buss E, McCreery RW, **Oleson J**, Rodriguez B, Leibold LJ. Comparing masked English speech recognition performance in younger and older Spanish-English bilingual and monolingual children. Journal of Speech, Language, and Hearing Research. 62(12), 4578-4591, 2019.

33. Walker E, Sapp C, **Oleson J**, McCreery RW. Longitudinal speech recognition in noise in children: Effects of hearing status, vocabulary, and working memory. Frontiers in Psychology: Auditory Cognitive Neuroscience. 10, 2421, 2019.
34. Toepp AA, Bennett CA, Scott B, Senesac R, **Oleson JJ**, Petersen CA. Maternal Leishmania infantum infection status has significant impact on leishmaniasis in offspring. PLOS Neglected Tropical Diseases. 13(2): e0007058. <https://doi.org/10.1371/journal.pntd.0007058>, 2019.
35. Thomas A, Rhoads A, Pinkerton E, Schroeder MC, Conway KM, Hundley WG, McNally LR, **Oleson J**, Lynch CF, Romitti PA. Incidence and Survival Among Young Women with Stage I-III Breast Cancer: SEER 2000-2015. Journal of the National Cancer Institute Cancer Spectrum. 3(3), pkz040, 2019.
36. McGregor K, Marshall B, Julian S, **Oleson J**. Learning while playing: A randomized trial of serious games as a tool for word learning. Language, Speech, and Hearing Services in Schools. 50(4), 596-608, 2019.
37. Moeller MP, Thomas A, **Oleson JJ**, Ambrose S. Validation of a parent-report tool for monitoring early vocal stages in infants. Journal of Speech, Language, and Hearing Research 62(7), 2245-2257, 2019.
38. McGregor K, Arbisi-Kelm T, Perelmutter B, **Oleson J**. Favorite words as a window onto the aesthetic function of language. American Speech.94(3), 380-396, 2019.
39. Walker EA, Kessler D, Klein K, Spratford M, **Oleson JJ**, Welhaven A, McCreery RW. Time-gated speech perception in children: Effects of auditory access, vocabulary, and working memory. Journal of Speech, Language, and Hearing Research 62, 2519-2534, 2019.
40. Zahrieh D, **Oleson JJ**, Romitti PA. Quantifying geographic regions of excess stillbirth risk in the presence of spatial and spatio-temporal heterogeneity. Spatial and Spatio-Temporal Epidemiology. 29, 97-109, 2019.
41. Toepp AJ, Monteiro GR, Coutinho JF, Lima AL, Larson M, Wilson G, Grinnage-Pulley T, Bennett C, Mahachi K, Anderson B, Ozanne M, Anderson M, Fowler H, Parrish M, Willarson K, Saucier J, Tyrell P, Palmer Z, Buch J, Chandrashekar R, Brown GD, **Oleson JJ**, Jeronimo SMB, Petersen CA. Comorbid infections induce progression of visceral leishmaniasis. Parasites and Vectors 12:54, 2019.
42. **Oleson JJ**, Brown GD, McCreery R. Essential Statistical Concepts for Research in Speech, Language, and Hearing Sciences. Journal of Speech, Language, and Hearing Research. 62, 489-497, 2019.
43. **Oleson JJ**, Brown GD, McCreery R. The Evolution of Statistical Methods in Speech, Language, and Hearing Sciences. Journal of Speech, Language, and Hearing Research 62, 498-506, 2019.
44. Ponto L, Moser D, Menda Y, Harlynn E, DeVries S, **Oleson J**, Magnotta V, Schultz S.. Early phase PIB-PET as a surrogate for global and regional cerebral blood flow measures. Journal of Neuroimaging 29, 85-96, 2019
45. Walker EA, **Oleson JJ**, Redfern A. Linear Mixed Model Analysis to Examine Longitudinal Trajectories in Vocabulary Depth and Breadth in Children who are Hard of Hearing. Journal of Speech, Language, and Hearing Research 62, 525-542, 2019.
46. Wu YH, Stangl E, Chipara O, Hasan SS, DeVries, **Oleson JJ**. Efficacy and effectiveness of advanced hearing aid noise reduction technologies for older adults with mild to moderate hearing loss. Ear and Hearing 40(4), 805-822, 2019.
47. Ward C, **Oleson JJ**, Jones K, Charlton M. Showcasing cancer incidence and mortality in rural ZCTAs using risk probabilities via spatio-temporal Bayesian disease mapping. Applied Spatial Analysis and Policy 12, 907-921, 2019.
48. Zahrieh D, **Oleson JJ**, Romitti P. Bayesian point process modeling to quantify geographic regions of excess stillbirth risk. Geographical Analysis 51, 381-400, 2019.
49. Ozanne M, Brown G, **Oleson JJ**, Lima ID, Queiroz JW, Jeronimo SMB, Petersen CA, Wilson ME. Bayesian compartmental model for an infectious disease with dynamic states of infection. Journal of Applied Statistics. 46:6, 1043-1065, 2019.

50. Kapoor R, Kancherla V, Cao Y, **Oleson JJ**, Suhl J, Canfield MA, Druschel CM, Kirby RS, Meyer R, Romitti PA. Prevalence and Descriptive Epidemiology of Infantile Hypertrophic Pyloric Stenosis in United States: A Multistate Population-based Retrospective Study, 1999-2010. *Birth Defects Research*. 111:159-169, 2019.
51. Page TA, Harrison M, Moeller MP, **Oleson JJ**, Arenas R, Spratford M. Service provision for Children who are Hard of Hearing at Preschool and Elementary School Ages. *Language, Speech, and Hearing Services in Schools*. 49:965-981, 2018.
52. 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*. 102:55-67, 2018.
53. McGregor K, Munro N, Chen SM, Baker E, **Oleson JJ**. Cultural Influences on the Developing Semantic Lexicon. *Journal of Child Language* 45:1309-1336, 2018.
54. Saletta M, Goffman L, Ward C, **Oleson J**. Influence of language load on speech motor skill in children with specific language impairment. *Journal of Speech, Language, and Hearing Research*. 61:675-689, 2018.
55. Wu Y, Stangl E, Chipara O, Shabih-Hasan S, Welhaven A, **Oleson J**. Characteristics of real-world signal-to-noise ratios and speech listening situations of older adults with mild-to-moderate hearing loss. *Ear and Hearing*, 39: 293-304, 2018
56. Brown GD, Porter AT, **Oleson JJ**, Hinman, J. Approximate Bayesian computation for spatial SEIR(S) epidemic models. *Spatial and Spatio-Temporal Epidemiology*, 24:27-37, 2018.
57. Gantz B, Dunn C, **Oleson JJ**, Hansen M. Acoustic plus electric speech processing: Long-term results. *The Laryngoscope*, 128:473-481, 2018. doi:10.1002/lary.26669. PMID: 28543270
58. **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*. 26(6) 2708-2725, 2017. PMID: 26400088, PMCID: PMC4805515
59. 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*, 60, 3487-3506, 2017.
60. Arenas RM, Walker E, **Oleson JJ**. Developmental stuttering in children who are hard of hearing. *Language, Speech, and Hearing Services in Schools*, 48, 234-248, 2017.
61. Shostrom D, Sun Y, **Oleson JJ**, Snetselaar LG, Bao W. History of gestational diabetes mellitus in relation to cardiovascular disease and cardiovascular risk factors in US women. *Frontiers in Endocrinology*, 8:144, 2017. PMID: 28694789, PMCID: PMC5483836
62. Hall J, McGregor KK, Oleson JJ. The semantic fluency of college students with developmental language impairments. *Journal of Speech, Language, and Hearing Research*, 60:640-653, 2017.
63. 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*, 60, 2891-2905, 2017.
64. 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. *PLOS One* 12(5): e0177930, 2017. PMID: 28520816, PMCID: PMC5433780
65. 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. PMID: 28432874
66. 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*. 15(1):33, doi 10.1186.s12955-017-0612-1, 2017. PMID: 28187773, PMCID: PMC5303295

67. 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*. 26(2):129-142, doi:10.1044/2017\_AJA-16-0116, 2017. PMID: 28475714
68. 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(3):640-653, 2017. PMID: 28267833, PMCID: PMC5544191
69. 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(1):38-52, 2017. PMID: 28257528
70. **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. PMID: 24821002, PMCID: PMC4227964
71. 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. PMID: 27453437
72. 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. PMID: 27337902, PMCID: PMC5033508
73. 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.
74. Driscoll VD, Welhaven AE, Gfeller K, **Oleson JJ**, Olszewski CP. Music Perception of Adolescents Using Electroacoustic Hearing. *Otology & Neurotology*, 37(2): e141-e147, 2016. PMID: 26756148, PMCID: PMC4712735
75. 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. PMID: 26365804
76. 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(4):962-973, 10.1002/lary.25572, 2016. PMID: 26756395, PMCID: PMC4803613
77. 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, 2016. PMID: 26440475, PMCID: PMC4766183
78. 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. PMID: 26574727
79. Dixon BS, VanBuren JM, Rodrigue JR, Lockridge RS, Lindsay R, Chan C, Rocco MV, **Oleson JJ**, Beglinger L, Duff K, Paulsen JS, Stokes JB, and the FHN Study. Cognitive changes associated with switching to frequent nocturnal hemodialysis or renal transplantation. *BMC Nephrology*, 17:12, 2016. PMID: 26801094 PMCID: PMC4722762
80. Reynolds JC, Damiano PC, Glanville JL, **Oleson JJ**, McQuistan MR. Neighborhood and family social capital and the oral health of children in Iowa. *American Journal of Public Health*, 43(6):569-577, 2015. PMID: 26179518
81. 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(7):962-967, 2015. PMC: PMC4336828, PMID: 25153923
82. 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. PMID: 26731161, PMCID: PMC4704115

83. 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. PMID: 26731156, PMCID: PMC4704126
84. 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. PMID: 26731160, PMCID: PMC4703361
85. 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. PMID: 26731158, PMCID: PMC4703365
86. 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. PMID: 26731157, PMCID: PMC4704121
87. 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. PMID: 25575373, PMCID: PMC4665646
88. 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(2):396-409, 2015. PMID: 25650750, PMCID: PMC4398614
89. 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. PMID: 25691513, PMCID: PMC4414659
90. 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.
91. Van 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. PMID: 25575373, PMCID: PMC4665646
92. 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. PMID: 25046621, PMCID: PMC4307605
93. 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. PMID: 24662894, PMCID: PMC4256125
94. Porter AT, **Oleson JJ**. A multivariate CAR model for mismatched lattices. Spatial and Spatio-Temporal Epidemiology, 11:79-88, 2014. PMID: 25457598
95. Kliethermes SA, **Oleson JJ**. A Bayesian approach to functional mixed effect modeling with binomial outcomes. Statistics in Medicine, 33(18):3130-3146, 2014. PMID: 24723495, PMCID: PMC4107023
96. 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.
97. 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. PMID: 24576053, PMCID: PMC4249690
98. Anderson KR, **Oleson JJ**, Anthony TR. Variability in coefficient of restitution in human facial skin. Skin Research and Technology, 20(3):355-362, 2014. PMID: 24628680, PMCID: PMC4753564
99. 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. PMID: 24979394, PMCID: PMC4152771

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101. 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. PMID: 24700303, PMCID: PMC4066968
102. 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(1):116-128, 2014. PMID: 24018573, PMCID: PMC3950303
103. 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. PMID: 24231628, PMCID: PMC3944377
104. 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. PMID: 26442568, PMCID: PMC3600096
105. 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(3):307-319, 2013. PMID: 23650887, PMCID: PMC3648877
106. 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(1):73-88, 2013. PMID: 22869089, PMCID: PMC3543484
107. **Oleson JJ**, Kumar N, Smith BJ. Spatio-temporal modeling of irregularly spaced Aerosol Optical Depth data. *Environmental and Ecological Statistics*, 20(2):297-314, 2013. PMID: 24470786, PMCID: PMC3901316
108. Porter AT, **Oleson JJ**. A path-specific SEIR model for use with general latent and infectious time distributions. *Biometrics*, 69(1):101-108, 2013. PMID: 23323602, PMCID: PMC3622117
109. **Oleson JJ**, Wikle CK. Predicting infectious disease outbreak risk via migratory waterfowl vectors. *Journal of Applied Statistics*, 40(3): 656-673, 2013.
110. 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.
111. 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.
112. 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, PMCID: 3435452
113. 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(1):68-101, 2012. PMID: 22803258, PMCID: PMC3400117
114. 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. NIHMSID: 355820, PMID: 21751232, PMCID: PMC3339260
115. Vosburgh DJH, Boysen DA, **Oleson JJ**, and Peters TM. Airborne nanoparticle concentrations in the manufacturing of polytetrafluorethylene (PTFE) apparel. *Journal of Occupational & Environmental Hygiene*, 8(3):139-146, 2011. PMID: 21347955, PMCID: PMC4773197



116. 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, 31(7):1144-1152, 2010. PMID: 20679955, PMCID: PMC3641783
117. 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
118. Brown C, Abbas P, Etlar 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):5-15, 2010. PMID: 20085195, PMCID: PMC2881552
119. **Oleson JJ**. Bayesian credible intervals for binomial proportions in a single patient trial. Statistical Methods in Medical Research, 19(6):559-574, 2010. NIHMSID: 355814, PMID: 20181779, PMCID: PMC3307549
120. 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.*
121. 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
122. **Oleson JJ**, Breheny PJ, Pendergast JF, Ryan S, Litchfield RE, Myers-Geadelmann J. Impact of travel distance on WISEWOMAN intervention attendance for a rural population. Preventive Medicine, 47:565-569, 2008. PMID: 18672000
123. 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.
124. 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
125. 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, PMCID: PMC267551 (*Audiology Literature Best of 2008: Cochlear Implants, The Hearing Journal*)
126. Kim H and **Oleson JJ**. A Bayesian dynamic spatio-temporal interaction model: An application to prostate cancer incidence. Geographical Analysis, 40:77-96, 2008.
127. **Oleson JJ** and He CZ. Adjusting nonresponse bias at subdomain levels using multiple response phases. Biometrical Journal, 50(1):58-70, 2008. PMID: 1784938
128. 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.
129. **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.
130. 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
131. **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.
132. 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
133. **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.
134. 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.

135. 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.
136. **Oleson JJ** and He CZ. Hierarchical Bayesian modeling in dichotomous processes in the presence of nonresponse. Biometrics, 60:50-59, 2004. PMID: 15032773
137. **Oleson JJ** and He CZ. Space-time modeling for the Missouri Turkey Hunting Survey. Environmental and Ecological Statistics, 11:85-101, 2004.
138. 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. Seedorff M, **Oleson J**, McMurray B. Maybe maximal: Good enough mixed models optimize power while controlling Type I error. *Submitted*.
2. Gomez-Solecki M, O'Connell K, Nair N, Brisson D, Ostfeld RS, Penney J, **Oleson JJ**, Petersen CA, Brown GD. Maternal transfer of neutralizing antibodies after oral immunization with OspA and their impact in the enzootic cycle of *B. burgdorferi*. *Submitted*.
3. Weeks KS, Lynch CF, West MM, Carnahan RM, O'Rourke M, **Oleson JJ**, McDonald ME, Stewart SL, Charlton ME. Gynecologic oncologists' impact on adjuvant chemotherapy care for ovarian cancer patients: A cohort study of the Midwestern United States. *Submitted*.
4. Weeks KS, Lynch CF, West MM, Carnahan RM, O'Rourke M, **Oleson JJ**, McDonald ME, Stewart SL, Charlton M. Rural disparities in surgical care from gynecologic oncologists among midwestern ovarian cancer patients. Gynecologic Oncology. *In Revision*.
5. **Oleson JJ**, Smith MA, Jorgensen EJ, Wu YH. Ecological Momentary Assessment: Guidelines of Data Analysis.
6. Walker EA, Ward C, **Oleson JJ**, Sapp C, McCreery RW, Tomblin JB, Moeller MP. Language growth in children with hearing loss who received early intervention by 3 or 6 months.
7. McGregor KK, Smolak E, Jones M, **Oleson JJ**, Eden N, Arbisi-Kelm T. What children with developmental language disorder teach us about cross-situational word learning.
8. Jensen MJ, Isaac H, Hernandez H, **Oleson J**, Dunn C, Gantz BJ, Hansen MR. Temporal dynamics of acoustic hearing changes after cochlear implantation.
9. Ward C, Brown GD, **Oleson JJ**. An individual level infectious disease model in the presence of uncertainty from multiple, imperfect diagnostic tests. Biometrics.

#### 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. 7<sup>th</sup> 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”, 2<sup>nd</sup> ed. JASA Reviews, Mattson Publishing. 2007

#### **GRANT SUPPORT:**

##### **Principal Investigator:**

- Oleson JJ, National Institute for Environmental Health Sciences through the University of Iowa Environmental Health Sciences Research Center, NIEHS/NIH P30 ES005605, “Creating small area cancer risk estimates to promote cancer control activities in rural areas”, \$37,662, 0% effort 2019-2020.
- Oleson JJ, Father Flanagan’s Boys Home 96441, “The Dynamics of Word Learning in Children with Developmental Language Impairment”, \$2,613,571, 5% effort, 2012-2022.
- 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; 10% 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; 2016-2018.
- Oleson JJ; Iowa Department of Public Health Contract #5888NB90, “Screening Data Management”, \$6,139,260 total; 7% effort; 2015-2021.
- 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:**

- Romitti, Paul, U01 DD001223, CDC, “Iowa CBDRP: Component A BD-STEPS II Core”, \$101,057, 5% effort, 2018-2023.
- McMurray, Robert M, R01 DC008089, NIH, “The Development of Real Time Spoken and Written Word Recognition: Cognitive Bases of Language and Educational Outcomes”, \$424,959, 4.2% effort, 2019-2023.
- Petersen, Christine, R01 AI139267, NIH, “Field Trial and Modeling of Transmission Blocking Vaccine to Prevent Lyme Disease”, \$606,116, 1% effort, 2019-2024.
- Wu, Yu-Hsiang, R01 DC015997, NIH, “Cost Effective Hearing Aid Delivery Models: Outcomes, Value, and Candidacy”, \$709,406, 5% effort, 2018-2023.
- Walker E, NIH R21 DC015832, “Mechanisms of Listening Effort in School Age Children who are Hard of Hearing”, \$610,000 total, 4% effort; 2017-2020.
- Zamba GK, NIH R25 HL131467, “Iowa Summer Institute for Research Education in Biostatistics”; \$993,833 total; 4% effort; 2016-2019.
- Gantz B, NIH-NIDCD P50 DC000242, “Iowa Cochlear Implant Clinical Research Center Project VII”; \$53,287,620 total; 15% effort; 1985-2022.
- 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; 2014-2017.

- Romitti P, CDC U01 DD001035, “Iowa CDBRP: 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”; \$717,660 total; 10% effort; 2013-2018.
- Hansen M, DOD/Iowa City Veterans Affairs Research Foundation, “Cochlear Implants”, \$23,743 total; 3% effort; 2014-2019.
- 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 (July 2021) Generalized Linear and Nonlinear Mixed Models. Boystown National Research Hospital. Omaha, Nebraska.

Oleson JJ (July 2021) Linear Mixed Models. Boystown National Research Hospital. Omaha, Nebraska.

Oleson JJ (January 2020) Modern statistical methods in the speech, language, and hearing sciences. Phonak Chicago, Illinois.

Oleson JJ, McCreery R (November 2019) Master Class Advanced Statistical Concepts for Speech, Language, & Hearing Scientists. American Speech and Hearing Association annual meeting. Orlando, Florida.

Oleson JJ, McCreery R, (November 2018) Shortcourse: Evolution of Statistical Methods in the Speech, Language, and Hearing Sciences. American Speech and Hearing Association annual meeting. Boston, Massachusetts.

Oleson JJ (November 2017) Hierarchical Bayesian Models for the Spread of Infectious Diseases. Department of Biostatistics Seminar, Iowa City, Iowa.

Oleson JJ (October 2017) Iowa Health Fact Book Webinar. Iowa Department of Public Health, Des Moines, Iowa.

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 and CRAN.

### **STUDENT ADVISING: The University of Iowa**

- Have served on 38 PhD committees (non-chair) (Biostatistics (14), Audiology (1), Nursing (3), Occupational & Environmental Health (3), Otolaryngology (2), Music (5), 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 (23 students)
  - Supervisor for Iowa Summer Institute in Biostatistics 2008 – present (24 students, 10 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, Defended June 2017
- Michael Seedorff (co-advisor Bob McMurray), “Methods for Testing for Group Differences in Highly Correlated, Nonlinear Eyetracking Data.” Biostatistics, University of Iowa, Defended May 2018
- Marie Ozanne (co-advisor Grant Brown), “Bayesian compartmental models for zoonotic visceral Leishmaniasis in the Americas.” Biostatistics, University of Iowa, Defended May 2019
- Caitlin Ward (co-advisor Grant Brown), “Advances in spatio-temporal modeling of infectious diseases.” Biostatistics, University of Iowa, Defended May 2021
- Amy Hahn (co-advisor Paul Romitti), “Identifying spatio-temporal variation in breast cancer incidence among different age cohorts using Bayesian hierarchical modeling.” Biostatistics, University of Iowa, Anticipated August 2021
- Lauren Sager, Biostatistics, University of Iowa, Anticipated December 2021
- Uche Nwoke (co-advisor Grant Brown), Biostatistics, University of Iowa, Anticipated December 2021
- Melissa Jay, Biostatistics, University of Iowa, Anticipated May 2022
- Helin Hernandez, Biostatistics, University of Iowa, Anticipated May 2022

#### **EDITORIAL ACTIVITIES:**

- External promotion evaluation for University of New Mexico, University of Louisville, Duke University, University of Alabama.
- 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*; *Geographical Analysis*; *Journal of the Royal Statistical Association – Series A*; *Bayesian Analysis*; *PLOS One*; *Journal of Racial and Ethnic Health Disparities*; *Journal of Molecular and Cellular Cardiology*, *Journal of Academy of Nutrition and Dietetics*, *International Journal of Environmental Research and Public Health*, *Ticks and Tick-Borne Diseases*

- Reviewer for grant proposals submitted to the National Science Foundation, National Institutes of Health
- Reviewed textbooks: Kokoska's *Introductory Statistics: A Problem Solving Approach*, Mann's *Introductory Statistics 5e*, Kinney's *Probability*.
- Statistical consultant for *Journal of Speech Language, and Hearing Research* (2007-2010)
- Statistical Board for *Cochlear Implants International* (2019-present)
- Editorial Board-Biostatistics Consulting Editor for *Ear and Hearing* (2020-present)

**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, **American Cochlear Implant Alliance**

**PROFESSIONAL**

**SERVICE:** **The University of Iowa**

- Member Holden Comprehensive Cancer Center – Cancer Epidemiology and Population Science (2019 – present)
- Chair Collegiate Consulting Group for Promotion and Tenure (2018, 2019)
- Member and Chair Departmental Consulting Group for Promotion and Tenure (2020)
- Director of Graduate Studies, Department of Biostatistics (2015 – present)
- Member of the Recruitment and Admissions Committee (2005 – 2012)
- Chair of the Admissions Committee, Department of Biostatistics (2012 – present).
- Member PhD Exam Committee (2014 – present)
- Chair PhD Exam Committee (2015, 2016)
- Member Review Panel of UI Internal Funding Initiative - Biomedical/Biological (2013-2014)
- Member of MS Exam committee (2004-2013)
- Chair MS Exam Committee (Fall 2009, Fall 2012)
- 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)
- 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**

- 2020 Recipient of the College of Public Health Faculty Award for Research
- 2020 Editor’s Award for *Ear and Hearing* for article “Efficacy and Effectiveness of Advanced Hearing Aid Directional and Noise Reduction Technologies for Older Adults With Mild to Moderate Hearing Loss. *Ear and Hearing*, 40(4):805-822, 2019.
- 2019 Recipient of the College of Public Health Faculty Award for Service.
- 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.”
- 2012 Recipient of the College of Public Health Faculty Award for Teaching.
- 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