

JACOB J. OLESON
The University of Iowa
College of Public Health
Department of Biostatistics
Iowa City, IA 52242
jacob-oleson@uiowa.edu
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:

2023 – present	Professor – Department of Otolaryngology-Head & Neck Surgery – Carver College of Medicine
2023 – present	Director – Statistics/Analytics Core, Institute for Public Health Practice, Research and Policy – College of Public Health – The University of Iowa
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 – 2023	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)
- 171:290 – Advanced Biostatistics Seminar: Spatial Statistics for Public Health Data (1 term)
- BIOS:7800 (171:281) – Independent Study in Biostatistics (Spatial Statistics, Survey Statistics, Multivariate Statistics, Longitudinal Data Analysis)
- 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 (4 terms)
- BIOS:7600 – Advanced Biostatistics Seminar: Spatial Biostatistics (2 terms)
- BIOS:6420 – Survey Design and Analysis (4 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. Doucet GE, Kruse JA, Mertens A, Goldsmith C, Eden NM, **Oleson J**, McGregor KK. Subcortical brain iron and its link to verbal memory in children with developmental language disorder. *Brain and Language*. 261, 2025. <https://doi.org/10.1016/j.bandl.2024.105531>
2. Wu YH, Stangl E, Smith S, **Oleson JJ**, Miller C, Chipara O. Psychometric characteristics and feasibility of micro-interaction based Ecological Momentary Assessment. *Frontiers in Audiology and Otology*. 2. 2025. <https://www.frontiersin.org/journals/audiology-and-otology/articles/10.3389/fauot.2024.1506306>
3. Waugh M, Cyndari K, Lynch T, Koh S, Henao-Ceballos F, **Oleson JJ**, Kaye P, Petersen CA. Clinical anemia predicts dermal parasitism and reservoir infectiousness during progressive visceral leishmaniasis. *PLOS Neglected Tropical Diseases*. 18(11): e0012363. 2024. <https://doi.org/10.1371/journal.pntd.0012363>
4. Wiseman KB, Cowan TM, Calandruccio L, Walker EA, Rodriguez B, **Oleson JJ**, McCreery RW, Leibold LJ, Buss E. Devise use among Spanish/English bilingual and English monolingual children who are deaf or hard of hearing. *Journal of Speech, Language, and Hearing Research*. 68(1): 282-300. 2025. https://doi.org/10.1044/2024_jslhr-24-00197
5. Nwoke U, Farooqui M, **Oleson J**, Mohr N, Ortega-Gutierrez S, Brown GD. Bayesian modeling framework for optimizing pre-hospital stroke triage decisions. *Journal of Applied Statistics*. 1-23. 2024. <https://doi.org/10.1080/02664763.2024.2360590>
6. Kutlu E, Baxelbaum K, Sorensen E, **Oleson JJ**, McMurray B. Linguistic diversity shapes flexible speech perception in school age children. *Scientific Reports*. 14, 28825. <https://doi.org/10.1038/s41598-024-80430-1>
7. He S, Skidmore J, Bruce IC, **Oleson JJ**, Yuan Y. Peripheral neural synchrony in post-lingually deafened adult cochlear implant users. *Ear & Hearing*. 45(5): 1125-1137. 2024. <https://doi.org/10.1101/2023.07.07.23292369>
8. Hosch A, Swanson B, Harris JL, **Oleson JJ**, Hazeltine E, Petersen IT. Explaining brain-behavior relations: Inhibitory control as an intermediate phenotype between the N2 ERP and the externalizing spectrum in childhood. *Research on Child and Adolescent Psychopathology*. <https://doi.org/10.1007/s10802-023-01162-w>. 2024.
9. Wu YH, Dorfier M, Stangl E, **Oleson JJ**. Would a comprehensive hearing aid fitting process lead to placebo effects compared to a simple process? *Frontiers in Audiology and Otology*. 2. <https://doi.org/10.3389/fauot.2024.1411397>.
10. Sorensen E, **Oleson JJ**, Kutlu E, McMurray B. A Bayesian model for the analysis of visual analogue scaling tasks. *Statistical Methods in Medical Research*. 33(6): 953-965. 2024.
11. Leibold LJ, Buss E, Miller MK, Cowan T, McCreery RW, **Oleson J**, Rodriguez B, Calandruccio L. Development of the children's English and Spanish speech recognition test: Psychometric properties, feasibility, reliability, and normative data. *Ear and Hearing*. 45(4): 860-877. 2024.
12. Scheperle R, Etlar C, **Oleson J**, Dunn C, Kashani R, Claussen A, Gantz B, Hansen M. Evaluation of real-time intracochlear electrocochleography for guiding cochlear implant electrode array position. *Journal of Clinical Medicine*. 12(23): 7409; <https://doi.org/10.3390/jcm12237409>. 2023.
13. Rahman MT, Mostaert BJ, Hunger B, Saha, U, Claussen AD, Razu I, Nasrin F, Khan NA, Coeman S, **Oleson J**, Kirk J, Hirose K, Hansen MR. Contribution of macrophages to intracochlear tissue remodeling responses following cochlear implantation and neural survival. *Journal of Neuroinflammation*. 20,266, <https://doi.org/10.1186/s12974-023-02955-y>. 2023.
14. Bayman E, **Oleson JJ**, Dexter F. Introduction to Bayesian analysis for clinical research. *Anesthesia & Analgesia*. 138(3): 530-541, 2024.
15. Smith MJ, **Oleson JJ**, Charlton M. Causal decomposition maps: an exploratory tool for designing area-level interventions aimed at reducing health disparities. *Biometrical Journal*. 65(8): 2200213, 2023.

16. Wasiuk PA, Calandruccio L, **Oleson JJ**, Buss E. Predicting speech-in-speech recognition: Short-term audibility and spatial separation. *The Journal of the Acoustical Society of America*. 154(3): 1827-1837, 2023.
17. Skidmore J, **Oleson JJ**, Yuan Y, He S. The relationship between electrophysiological measures of the electrically evoked compound action potential and cochlear implant speech perception outcomes. *Ear & Hearing*. 44(6): 1485-1497, 2023.
18. Doucet GE, Kruse JA, Hamlin N, **Oleson J**, White SF. Changing role of the amygdala in affective and cognitive traits between early and late adulthood. *Frontiers in Psychiatry*. 14, 2023.
19. Kruse JA, Martin CS, Hamlin N, Slattery E, Moriarty EM, Horne LK, Ozkalp-Poincloux B, Camarda A, White SF, **Oleson JJ**, Cassotti M, Doucet GE. Changes of creative ability and underlying brain network connectivity throughout the lifespan. *Brain and Cognition*. 168: 105975. <https://doi.org/10.1016/j.bandc.2023.105975>. 2023.
20. Reschke-Hernández AE, Gfeller K, **Oleson J**, Tranel D. Music therapy increases social and emotional well-being in persons with dementia: A randomized clinical crossover trial comparing singing to verbal discussion. *Journal of Music Therapy*. 60(3): 314-342, 2023.
21. Walker EA, Harrison M, Baumann R, Moeller MP, Sorensen E, **Oleson JJ**, McCreery RW. Story generation and narrative retells in children who are hard of hearing and hearing children. *Journal of Speech, Language, and Hearing Research*. 66(9): 3550-3573, 2023.
22. Hernandez HG, Brown GD, Lima ID, Coutinho JF, Wilson ME, Nascimento ELT, Jeronimo SMB, Petersen CA, **Oleson JJ**. Hierarchical spatiotemporal modeling of human visceral leishmaniasis in Rio Grande do Norte, Brazil. *PLoS Neglected Tropical Diseases*. 17(4): e0011206. <https://doi.org/10.1371/journal.pntd.0011206>. 2023.
23. Wu YH, Stangl E, Dunn C, **Oleson J**. Entropy as a measure of auditory environment diversity: An ecological momentary assessment (EMA) approach. *Ear & Hearing*. 44(4): 917-923, 2023.
24. Suhl J, Conway KM, Rhoads A, Langlois PH, Feldkamp ML, Michalski AM, **Oleson J**, Sidhu A, Scholz TD, Kancharla V, Obrycki J, Mazumdar M, Romitti PA. Pre-pregnancy exposure to dietary arsenic and congenital heart defects. *Birth Defects Research*. 115(1): 79-87, 2023.
25. Jorgensen E, Xu J, Chipara O, **Oleson J**, Galster J, Wu YH. Auditory environments and hearing aid feature activation among younger and older listeners in an urban and rural area. *Ear and Hearing*. 44(3): 603-618, 2023.
26. Ward C, Brown GD, **Oleson JJ**. Incorporating infectious duration-dependent transmission into Bayesian epidemic models. *Biometrical Journal*. 65(3):2100401, 2023.
27. Ward C, Brown GD, **Oleson JJ**. An individual level infectious disease model in the presence of uncertainty from multiple, imperfect diagnostic tests. *Biometrics*. 79: 426-436, 2023.
28. Sapp C, Munoz K, McCreery R, Holte L, **Oleson JJ**, Walker E. Descriptions of hearing loss severity differentially influence parental concern about the impact of childhood hearing loss. *Ear and Hearing*. 44(2): 287-299, 2023.
29. Suhl J, Conway KM, Rhoads A, Langlois PH, Feldkamp ML, Michalski AM, **Oleson JJ**, Sidhu A, Kancharla V, Obrycki J, Mazumdar M, Romitti PA, and the National Birth Defects Prevention Study. Pre-pregnancy exposure to arsenic in diet and non-cardiac birth defects. *Public Health Nutrition*. 26(3): 1-13, 2022.
30. Wasiuk P, Buss E, **Oleson J**, Calandruccio L. Predicting speech-in-speech recognition: Short-term audibility, talker sex, and listener factors. *Journal of the Acoustical Society of America*. 152: 3010, 2022.
31. McCreery RW, Walker E, Lewis D, **Oleson J**, Stiles D, Davidson L, Martin P, Sapp C, Spratford M, Wiseman K, Haggerty A, Heusinkvelt M, Leibold L, Buss E. Clinical validation of novel audiometry and speech recognition tools for improving the identification of mild bilateral hearing loss in children. *Journal of Speech, Language, and Hearing Research*. 2022.
32. Claussen AD, Quevedo RV, Kirk JR, Higgins T, Mostaert B, Rahman MT, **Oleson JJ**, Hernandez R, Hirose K, Hansen MR. Chronic cochlear implantation with and without electric stimulation in a mouse

- model induces robust cochlear influx of CX3CR1^{+GFP} macrophages. Hearing Research. 426:108510. 2022.
33. James PE, Schafer E, Wolfe J, Matthews L, Browning S, **Oleson J**, Sorensen E, Rance G, Shiels L, Dunn A. Increased rate of listening difficulties in autistic children. Journal of Communication Disorders. 99: 106252, 2022.
 34. Farquharson K, **Oleson JJ**, McCreery RW, Walker EA. Auditory experience, speech sound production growth, and early literacy in children with mild to moderate hearing loss. American Journal of Speech-Language Pathology. 31(5): 2092-2107, 2022.
 35. Finn J, Suhl J, Kancherla V, Conway KM, **Oleson JJ**, Sidhu A, Nestoridi E, Fisher SC, Rasmussen SA, Yang W, Romitti PA. Maternal cigarette smoking and alcohol consumption and congenital diaphragmatic hernia. Birth Defects Research. 114(10): 746-758, 2022.
 36. **Oleson JJ**, Smith MA, Jorgensen EJ, Wu YH. Statistical considerations for analyzing ecological momentary assessment data. Journal of Speech, Language, and Hearing Research. 65(1): 344-360. 2022.
 37. Hosch A, **Oleson JJ**, Harris JL, Goeltz MT, Neumann T, LeBeau, B, Hazeltine E, Petersen IT. Studying children's growth in self-regulation using changing measures to account for heterotypic continuity: A Bayesian approach to developmental scaling. Developmental Science. 25(6), e13280, 2022.
 38. 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. Journal of Early Hearing Detection and Intervention. 7(1): 1-10, 2022
 39. 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. 49:2, 449-465, 2022.
 40. Weeks KS, Lynch CF, West MM, Carnahan RM, O'Rourke M, **Oleson JJ**, McDonald ME, Stewart SL, Charlton ME. Gynecologic oncologist impact on adjuvant chemotherapy care for stage II-IV ovarian cancer patients. Gynecologic Oncology. 164(1): 3-11. 2022.
 41. 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. Cognitive Science. 46 e13094. 2022.
 42. Jensen MJ, Isaac H, Hernandez H, **Oleson J**, Dunn C, Gantz BJ, Hansen MR. Timing of acoustic hearing changes after cochlear implantation. Laryngoscope. 132(10): 2036-2043. 2022.
 43. Wu YH, Stangl E, **Oleson J**, Caraher K, Dunn C. Personal characteristics associated with ecological momentary assessment compliance in adult cochlear implant candidates and users. Journal of the American Academy of Audiology. 33:158-169, 2022.
 44. Dunn A, James P, Pelosi A, Sorensen E, **Oleson J**. Managing listening difficulties in patients with ASD and normal hearing sensitivity: Toward better testing and clinical management of this unique patient population. Hearing Review. 2021.
 45. 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 electrode-acoustic stimulation cochlear implant users with delayed loss of acoustic hearing. Journal of the Association for Research in Otolaryngology 23, 95-118, 2021
 46. 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. 44(10): 544-551, 2021
 47. Calandrucchio 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. 30(3): 769-776, 2021.
 48. 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.

49. 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.
50. Tejani VD, Kim JS, **Oleson JJ**, Abbas PJ, Brown CH, Hansen MR, Gantz BJ. Residual hair cell responses in electric-acoustic stimulation cochlear implant users with complete loss of acoustic hearing after implantation. Journal of the Association for Research in Otolaryngology. 22(2): 161-176, 2021.
51. 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.
52. 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. 160(2): 477-484, 2021.
53. Bayman EO, **Oleson JJ**, Rabbitts JA. AAAPT: Assessment of the Acute Pain Trajectory. Pain Medicine. 22(3): 533-547, 2021
54. 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.
55. 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.
56. 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.
57. 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.
58. 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.
59. 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.
60. 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.
61. Douglas EH, Rhoads A, Thomas A, Aloï 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.
62. 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.
63. 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.
64. 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.
65. 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. 2020.
66. 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.

67. 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.
68. 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.
69. 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.
70. 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.
71. 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.
72. 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.
73. 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.
74. 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.
75. 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.
76. 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.
77. 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.
78. 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.
79. 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.
80. 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.
81. 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.
82. 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.
83. 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.

84. 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.
85. 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.
86. **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.
87. **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.
88. 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
89. 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.
90. 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.
91. 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.
92. Zahrieh D, **Oleson JJ**, Romitti P. Bayesian point process modeling to quantify geographic regions of excess stillbirth risk. *Geographical Analysis* 51, 381-400, 2019.
93. 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.
94. 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.
95. 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.
96. 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.
97. 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.
98. 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.
99. 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
100. 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.
101. 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. 2018.

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NON-PEER REVIEWED:

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3. 2009 Iowa Health Fact Book, University of Iowa College of Public Health and the Iowa Department of Public health. Oleson JJ (Ed.) July 2009.
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5. 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.
6. 2005 Iowa Health Fact Book, University of Iowa College of Public Health and the Iowa Department of Public Health. Oleson JJ (Ed.) July 2005.
7. 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.

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

GRANT SUPPORT:

Principal Investigator:

- Oleson JJ, Boys Town National Research Hospital, NIH; GRT-00470, R01 DC011742, “Specifying the Verbal Working Memory Endophenotype for Developmental Language Disorder,” \$80,250; 10% effort; 2024-2029.
- Oleson JJ, Father Flanagan’s Boys Home, NIH; GRT-00475, R01 DC021428, “Sex and Gender Differences in Language Impairment, Disability, and Service Receipt,” \$44,442; 5% effort; 2024-2029.
- Oleson JJ, US Department of Veterans Affairs, Iowa City Veterans Affairs Medical Center, no project number, “VA IPA - Identification of demographic, clinical, and genetic profiles for suicidal behavior in US Veterans,” \$14,740; 5% effort; 2024-2025.
- Oleson JJ, Ohio State University, NIH, SPC-1000013879, GR137491, R01 DC017846, “Neural encoding and auditory processing of electrical stimulation in pediatric cochlear implant users,” \$45,340; 10% effort; 2024-2025.
- Oleson JJ, Phonak/Sonova US Corporate Services, J017300-C, “SUSCS-Sonova US Corporate Services,” \$77,000; 10% effort; 2020-2023.
- Oleson JJ, NIH, U01CA258400, “Development of Small Area Interactive Risk Maps for Cancer Control Efforts,” \$971,845; 15% effort; 2022-2025.
- 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,” \$8,004,487 total; 7% effort; 2015-2024.
- 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:

- Dunn-Johnson, Camille, NIH, R01 AG085277, “The Effectiveness of Cochlear Implants in Real-World Settings for Mild Cognitive Impairment and Dementia in Older Adults with Age-Related Hearing Loss,” \$4,322,395; 10% effort; 2024-2029.
- Carnahan, Ryan, Internal award, University of Iowa, no project number, “The Iowa Health Data Resource: Extending the Impact,” \$2,550,571; 5% effort; 2024-2025.
- Gantz, BJ, NIDCD, P20 DC000242, “Iowa Cochlear Implant Clinical Research Center Project VIII,” \$64,485,978; 12.5% effort; 2023-2028.
- Leibold, LJ, NIH-NIDCD, R01 DC020229/PA-20-185, “Speech Perception and Auditory Abilities in Infants, Children, and Adults with Down Syndrome,” \$97,494; 5% effort; 2022-2027.
- Hendrickson, Kristi, NIH, R01 DC020143, “Language Outcomes, Mechanisms, and Trajectories in Adults with and without Developmental Language Disorder,” \$2,878,253; 10% effort; 2022-2027.
- Ortega Gutierrez, S; Mohr, N; Brown, G, NIH, R01 NS127114, “Geospatial Modeling for Stroke Care,” \$2,550,571; 1% effort; 2022-2027.
- Zamba GK, NIH, R25 HL161716, “Iowa Summer Institute for Research Education in Biostatistics and Data Science (ISIB),” \$1,280,640; 1% effort; 2022-2027.

- Petersen, Christine, NIH, R01 AI171971, "Alteration of skin immune environment by sand fly saliva across progressive Leishmaniasis," \$1,431,167; 2% effort; 2022-2024.
- Walker, Elizabeth, Boys Town National Research Hospital, 96469-A, "Developing Evidence-Based Clinical Tools for Managing Mild Hearing Loss in Children," \$547,169; 4% effort; 2020-2026.
- Walker, Elizabeth, NIH, R01 DC019081, "Factors Associated with Reading Comprehension in Adolescents Who are Hard of Hearing," \$3,846,743; 5% effort; 2021-2026.
- Walker, Elizabeth, Boys Town National Research Hospital, 96399-A, "Complex Listening Skills in School-Age Hard of Hearing Children," \$554,930; 4% effort; 2019-2024.
- Wu, Yu-Hsiang, NIH, R01 DC015997, "Barriers and facilitators to over-the-counter hearing aids success: A patient journey approach," \$3,427,980; 10% effort; 2018-2029.
- Romitti, Paul, CDC, U01 DD001223, "Iowa CBDRP: Component A BD-STEPS II Core," \$4,295,000; 5% effort; 2018-2023.
- McMurray, Robert M, NIH, R01 DC008089, "The Development of Real Time Spoken and Written Word Recognition: Cognitive Bases of Language and Educational Outcomes," \$7,685,891; 4.2% effort; 2019-2023.
- Petersen, Christine, NIH, R01 AI139267, "Field Trial and Modeling of Transmission Blocking Vaccine to Prevent Lyme Disease," \$3,888,692; 1% effort; 2019-2024.
- Wu, Yu-Hsiang, NIH, R01 DC015997, "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; 2016-2022.
- 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 CBDRP: 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 (February 2024) Introduction to Bayesian Statistics: Fundamentals of Bayesian Analyses and Performing Bayesian Data Analyses. Workshop at Boystown National Research Hospital. Omaha, Nebraska.

Oleson JJ (February 2024) Spatial statistics and disease mapping with GIS and public health data. Epidemiology Seminar, Department of Epidemiology, Iowa City, Iowa.

Oleson JJ (October 2023) Developing cancer epidemiology maps to detect hot spots for small geographic areas. Kohn Colloquium, Department of Geographical and Sustainability Sciences, Iowa City, Iowa.

Oleson JJ (September 2023) Developing cancer epidemiology maps to detect hot spots for small geographic areas. ITCR Annual Meeting. Chicago, Illinois.

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:

- Nolte C, 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 48 PhD committees (non-chair) (Biostatistics (21), 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 (4), Environmental Studies (1))
- Have served on 4 MS committees (2 Epidemiology, Geography, Dental Public Health)
- Supervisor for Biostatistics Preceptorships (25 students)
- Supervisor for Iowa Summer Institute in Biostatistics 2008 – present (30 students, 12 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
- Melissa Jay, Biostatistics, University of Iowa, “Bayesian methods for estimation and mediation in disease mapping applications.” Biostatistics. Defended May 2022
- 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, ABD
- Helin Hernandez (co-advisor Grant Brown), “Bayesian spatial modeling of visceral Leishmaniasis disease and infection in Brazil at multiple spatial scales.” Biostatistics, University of Iowa, Defended July 2023
- Eldon Sorensen, “Bayesian hierarchical growth curve methods with applications in linguistics and audiological sciences.” Biostatistics, University of Iowa, Defended March 2024.
- Lauren Mudd, “A hierarchical Bayesian model to estimate an index of county health.” Biostatistics, University of Iowa, Defended December 2024
- Uche Nwoke (co-advisor Grant Brown), “Bayesian techniques in patient centric modeling.” Biostatistics, University of Iowa, Anticipated May 2024

EDITORIAL ACTIVITIES:

- External promotion evaluation for University of New Mexico, University of Louisville, Duke University, University of Alabama, Drexel University, University of Mississippi, Georgetown University, Arizona State University.
- 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*; *Applied Energy*; *Open Medicine*; *American Journal of Speech-Language Processing*; *Journal of the Acoustical Society of America*; *Journal of Affective Disorders*, *Computers in Biology and Medicine*
- Reviewer for grant proposals submitted to the National Science Foundation, National Institutes of Health, Natural Sciences and Engineering Research Council of Canada, German Research Foundation Deutsche Forschungsgemeinschaft
- 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)
- Guest Editor for *Journal of Speech, Language, and Hearing Research* (2022)

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, 2024)
- 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**

- 2022 Editor’s Award for *Gynecologic Oncology* for article “Defining the essential role of the gynecologic oncologist in rural ovarian cancer care delivery.” 164(1):3-11, 2022.
- 2021 Editor’s Award for *American Journal of Audiology* for article “Toward a New Evidence-Based Fitting Paradigm for Over-the-Counter Hearing Aids. *American Journal of Audiology*, 30(1): 43-66, 2021.

- 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