Ander Wilson, PhD

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Education

North Carolina State University, Raleigh, NC · 2014
PhD, Statistics
Thesis: *Advances in Bayesian Methods for High-Dimensional Environmental Data*
Advisor: Brian Reich

North Carolina State University, Raleigh, NC · 2011
Masters of Statistics

University of Vermont, Burlington, VT · 2004
Bachelor of Arts, Mathematics, *Cum Laude*

Experience

Colorado State University, Fort Collins, CO · 2016 – Present
Associate Professor, Department of Statistics · 2022 – Present
Assistant Professor, Department of Statistics · 2016 – 2022
Faculty Member, Partnership on Air Quality Climate and Health · 2016 – Present

Harvard T. H. Chan School of Public Health, Boston, MA · 2014 – 2016
Postdoctoral Research Fellow, Department of Biostatistics
Mentors: Brent A Coull and Francesca Dominici

Mathematica Policy Research, Inc., Cambridge, MA · 2014 – 2016
On-Call Statistician

U.S. Environmental Protection Agency, Chapel Hill, NC · 2012 – 2014
Oak Ridge Institute for Science and Education (ORISE) Fellow
Mentors: Ana G Rappold and Lucas Neas

U.S. Environmental Protection Agency, RTP, NC · 2010 – 2012
Student Volunteer Researcher, National Center for Computational Toxicology
Mentor: David Reif

North Carolina State University, Raleigh, NC · 2009 – 2012
NIH Trainee in Biostatistics and Statistical Genetics

Mathematica Policy Research, Inc., Cambridge, MA	2005 – 2011
On-Call Senior Programmer Analyst	2009 – 2011
Senior Programmer Analyst	2008 – 2009
Research Assistant/Programmer	2005 – 2007

PUBLICATIONS

* indicates current or former student.

Published in Peer-Reviewed Journals

*Hoskovec, L, Koslovsky, MD, Koehler, K, Good, N, Peel, JL, Volckens, J, **Wilson, A,** (In press). "Infinite Hidden Markov Model For Multiple Multivariate Time Series with Missing Data". *Biometrics.* arXiv: 2204.06610.
★ ASA Environmental Section Student Paper Competition honorable mention, 2021.

*Hoskovec, L, Martenies, S, Burket, TL, Magzamen, S, **Wilson, A,** (In press). "Association Between Air Pollution and COVID-19 Disease Severity via Bayesian Multinomial Logistic Regression with Partially Missing Outcomes". *Environmetrics.*

Leung, M, Rowland, S, Coull, B, Modest, AM, Hacker, MR, Schwartz, J, Kioumourtzoglou, MA, Weisskopf, MG, **Wilson, A,** (In press). "Bias amplification and variance inflation in distributed lag models using low spatial resolution data". *American Journal of Epidemiology.*

McGee, G, **Wilson, A**, Webster, T, Coull, BA, (In press). "Bayesian Multiple Index Models for Multi-Pollutant Mixtures". *Biometrics.* arXiv: 2101.05352.

*Mork, D, **Wilson, A,** (In press). "Estimating Perinatal Critical Windows to Environmental Mixtures via Structured Bayesian Regression Tree Pairs". *Biometrics.* arXiv: 2102.09071.
★ Health Effects Institute Jane Warren Trainee Conference Award winner, 2021.

Benka-Coker, ML, Clark, ML, Rajkumar, S, Young, BN, Bachand, AM, Brook, RD, Nelson, TL, Volckens, J, Reynolds, SJ, **Wilson, A**, L'Orange, C, Good, N, Quinn, C, Koehler, K, Africano, S, Pinel, ABO, Diaz-Sanchez, D, Neas, L, Peel, JL, (2022). "Household air pollution from wood-burning cookstoves and C-reactive protein among women in rural Honduras". *International Journal of Hygiene and Environmental Health* 241, p. 113949.

Chiu, YHM, Carroll, KN, Coull, BA, Kannan, S, **Wilson, A**, Wright, RJ, (2022). "Prenatal Fine Particulate Matter, Maternal Micronutrient Antioxidant Intake, and Early Childhood Repeated Wheeze: Effect Modification by Race/Ethnicity and Sex". *Antioxidants* 11.2.

Rahman, F, Coull, BA, Carroll, KN, **Wilson, A**, Just, AC, Kloog, I, Zhang, X, Wright, RJ, Chiu, YHM, (2022). "Prenatal PM2.5 exposure and infant temperament at age 6 months: Sensitive windows and sex-specific associations". *Environmental Research* 206, p. 112583.

Rowland, ST, Chillrud, LG, Boehme, AK, **Wilson, A**, Rush, J, Just, AC, Kioumourtzoglou, MA, (2022). "Can weather help explain 'why now?': The potential role of hourly temperature as a stroke trigger". *Environmental Research* 207 (1), p. 112229.

Walker, ES, Fedak, KM, Good, N, Balmes, J, Brook, RD, Clark, ML, Cole-Hunter, T, Devlin, RB, L'Orange, C, Luckasen, G, Mehaffy, J, Shelton, R, **Wilson, A**, Volckens, J, Peel, JL, (2022). "Acute differences in blood lipids and inflammatory biomarkers following controlled exposures

to cookstove air pollution in the STOVES study". *International Journal of Environmental Health Research* 32 (3), pp. 565–578.

Wilson, A, Hsu, HHL, Chiu, YHM, Wright, RO, Wright, RJ, Coull, BA, (2022). "Kernel machine and distributed lag models for assessing windows of susceptibility to environmental mixtures in children's health studies". *The Annals of Applied Statistics* 16.2. arXiv: 1904.12417.

Cole-Hunter, T, Dhingra, R, Fedak, KM, Good, N, L'Orange, C, Luckasen, G, Mehaffy, J, Walker, E, **Wilson, A**, Balmes, J, Brook, RD, Clark, ML, Devlin, RB, Volckens, J, Peel, JL, (2021). "Short-term differences in cardiac function following controlled exposure to cookstove air pollution: The subclinical tests on volunteers exposed to smoke (STOVES) study". *Environment International* 146, p. 106254.

*Hoskovec, L, Benka-Coker, W, Severson, R, Magzamen, S, **Wilson, A,** (2021). "Model choice for estimating the association between exposure to chemical mixtures and health outcomes: A simulation study". *PLOS ONE* 16.3. Ed. by J Meliker, e0249236.
★ Health Effects Institute student/postdoc travel award winner, 2019.

Magzamen, S, Gan, RW, Liu, J, O'Dell, K, Ford, B, Berg, K, Bol, K, **Wilson, A**, Fischer, EV, Pierce, JR, (2021). "Differential Cardiopulmonary Health Impacts of Local and Long-Range Transport of Wildfire Smoke". *GeoHealth* 5.3.

Martenies, SE, Hoskovec, L, **Wilson, A**, Allshouse, WB, Adgate, JL, Dabelea, D, Jathar, S, Magzamen, S, (2021). "Assessing the Impact of Wildfires on the Use of Black Carbon as an Indicator of Traffic Exposures in Environmental Epidemiology Studies". *GeoHealth* 5.6, pp. 424–430.

*Mork, D, **Wilson, A,** (2021). "Treed distributed lag nonlinear models". *Biostatistics*. arXiv: 2010.06147.

Tryner, J, Phillips, M, Quinn, C, Neymark, G, **Wilson, A**, Jathar, SH, Carter, E, Volckens, J, (2021). "Design and testing of a low-cost sensor and sampling platform for indoor air quality". *Building and Environment*, p. 108398.

Yan, M, **Wilson, A**, Dominici, F, Wang, Y, Al-Hamdan, M, Crosson, W, Schumacher, A, Guikema, S, Magzamen, S, Peel, JL, Peng, RD, Anderson, GB, (2021). "Tropical Cyclone Exposures and Risks of Emergency Medicare Hospital Admission for Cardiorespiratory Diseases in 175 Urban United States Counties, 1999-2010". *Epidemiology* 32.3, pp. 315–326.

Yuan, B, Osorio-Yáñez, C, Fang, J, Zhao, L, **Wilson, A**, Sanchez-Guerra, M, Liu, H, Li, PH, Guo, L, (2021). "Effect of Radiation, Organic Solvents and Vibration Occupational Exposure on the Thyroid Disease: Results from Project ELEFANT". *Aerosol and Air Quality Research* 21 (9), p. 210085.

Benka-Coker, ML, Peel, JL, Volckens, J, Good, N, Bilsback, KR, L'Orange, C, Quinn, C, Young, BN, Rajkumar, S, **Wilson, A**, Tryner, J, Africano, S, Osorto, AB, Clark, ML, (2020). "Kitchen concentrations of fine particulate matter and particle number concentration in households using biomass cookstoves in rural Honduras". *Environmental Pollution* 258, p. 113697.

Benka-Coker, W, *Hoskovec, L, Severson, R, Balmes, J, **Wilson, A**, Magzamen, S, (2020). "The joint effect of ambient air pollution and agricultural pesticide exposures on lung function among children with asthma". *Environmental Research* 190.June, p. 109903.

Burkhardt, J, Bayham, J, **Wilson, A**, Berman, JD, O'Dell, K, Ford, B, Fischer, EV, Pierce, JR, (2020). "The relationship between monthly air pollution and violent crime across the United States". *Journal of Environmental Economics and Policy* 9.2, pp. 188–205.

Fedak, KM, Good, N, Walker, ES, Balmes, J, Brook, RD, Clark, ML, Cole-Hunter, T, Devlin, R, L'Orange, C, Luckasen, G, Mehaffy, J, Shelton, R, **Wilson, A**, Volckens, J, Peel, JL, (2020). "Acute changes in lung function following controlled exposure to cookstove air pollution in the subclinical tests of volunteers exposed to smoke (STOVES) study". *Inhalation Toxicology* 32.3, pp. 115–123.

Gan, RW, Liu, J, Ford, B, O'Dell, K, Vaidyanathan, A, **Wilson, A**, Volckens, J, Pfister, G, Fischer, EV, Pierce, JR, Magzamen, S, (2020). "The association between wildfire smoke exposure and asthma-specific medical care utilization in Oregon during the 2013 wildfire season". *Journal of Exposure Science & Environmental Epidemiology* 30.4, pp. 618–628.

Lee, AG, Cowell, W, Kannan, S, Ganguri, HB, Nentin, F, **Wilson, A**, Coull, BA, Wright, RO, Baccarelli, A, Bollati, V, Wright, RJ, (2020). "Prenatal particulate air pollution and newborn telomere length: Effect modification by maternal antioxidant intakes and infant sex". *Environmental Research* 187.November 2019, p. 109707.

Martenies, SE, Schaeffer, J, Erlandson, G, Bradford, M, Poole, JA, **Wilson, A**, Weller, Z, Reynolds, S, Magzamen, S, (2020). "Associations Between Bioaerosol Exposures and Lung Function Changes Among Dairy Workers in Colorado". *Journal of Occupational & Environmental Medicine* 26 (6), pp. 424–430.

Tryner, J, L'Orange, C, Mehaffy, J, Miller-Lionberg, D, Hofstetter, JC, **Wilson, A**, Volckens, J, (2020). "Laboratory evaluation of low-cost PurpleAir PM monitors and in-field correction using co-located portable filter samplers". *Atmospheric Environment* 220, p. 117067.

Walker, ES, Fedak, KM, Good, N, Balmes, J, Brook, RD, Clark, ML, Cole-Hunter, T, Dinenno, F, Devlin, RB, L'Orange, C, Luckasen, G, Mehaffy, J, Shelton, R, **Wilson, A**, Volckens, J, Peel, JL, (2020). "Acute differences in pulse wave velocity, augmentation index, and central pulse pressure following controlled exposures to cookstove air pollution in the Subclinical Tests of Volunteers Exposed to Smoke (SToVES) study". *Environmental Research* 180, p. 108831.

Wilson, A, Tryner, J, L'Orange, C, Volckens, J, (2020). "Bayesian nonparametric monotone regression". *Environmetrics* 31.8, pp. 1–35. arXiv: 2006.00326.

Yan, M, **Wilson, A**, Peel, JL, Magzamen, S, Sun, Q, Li, T, Anderson, GB, (2020). "Community-wide Mortality Rates in Beijing, China, During the July 2012 Flood Compared with Unexposed Periods". *Epidemiology* 31.3, pp. 319–326.

Barrow, TM, Peng, C, **Wilson, A**, Wang, H, Liu, H, Shen, L, Tang, Nj, Sae-Lee, C, Li, Ph, Guo, L, Byun, HM, (2019). "Psychosocial stress is associated with benign breast disease in young Chinese women: results from Project ELEFANT". *Breast Cancer Research and Treatment* 173.1, pp. 217–224.

Berman, JD, Burkhardt, J, Bayham, J, Carter, E, **Wilson, A,** (2019). "Acute Air Pollution Exposure and the Risk of Violent Behavior in the United States". *Epidemiology* 30.6, pp. 799–806.
★ International Society of Environmental Epidemiology, Best Environmental Epidemiology Paper (BEEP) Award, 2020.

Bilsback, KR, Dahlke, J, Fedak, KM, Good, N, Hecobian, A, Herckes, P, L'Orange, C, Mehaffy, J, Sullivan, A, Tryner, J, Van Zyl, L, Walker, ES, Zhou, Y, Pierce, JR, **Wilson, A**, Peel, JL, Volckens, J, (2019). "A Laboratory Assessment of 120 Air Pollutant Emissions from Biomass and Fossil Fuel Cookstoves". *Environmental Science & Technology* 53.12, pp. 7114–7125.

Bose, S, Ross, KR, Rosa, MJ, Chiu, YHM, Just, A, Kloog, I, **Wilson, A**, Thompson, J, Svensson, K, Rojo, MMT, Schnaas, L, Osorio-Valencia, E, Oken, E, Wright, RO, Wright, RJ, (2019). "Prenatal particulate air pollution exposure and sleep disruption in preschoolers: Windows of susceptibility". *Environment International* 124, pp. 329–335.

Burkhardt, J, Bayham, J, **Wilson, A**, Carter, E, Berman, JD, O'Dell, K, Ford, B, Fischer, EV, Pierce, JR, (2019). "The effect of pollution on crime: Evidence from data on particulate matter and ozone". *Journal of Environmental Economics and Management* 98, p. 102267.

Fedak, KM, Good, N, Walker, ES, Balmes, J, Brook, RD, Clark, ML, Cole-Hunter, T, Devlin, R, L'Orange, C, Luckasen, G, Mehaffy, J, Shelton, R, **Wilson, A**, Volckens, J, Peel, JL, (2019). "Acute Effects on Blood Pressure Following Controlled Exposure to Cookstove Air Pollution in the STOVES Study". *Journal of the American Heart Association* 8.14.

Good, N, Carpenter, T, Anderson, GB, **Wilson, A**, Peel, JL, Browning, RC, Volckens, J, (2019). "Development and validation of models to predict personal ventilation rate for air pollution research". *Journal of Exposure Science & Environmental Epidemiology* 29.4, pp. 568–577.

Kioumourtzoglou, MA, Raz, R, **Wilson, A**, Fluss, R, Nirel, R, Broday, DM, Yuval, Hacker, MR, McElrath, TF, Grotto, I, Koutrakis, P, Weisskopf, MG, (2019). "Traffic-related Air Pollution and Pregnancy Loss". *Epidemiology* 30.1, pp. 4–10.

Koehler, K, Good, N, **Wilson, A**, Mölter, A, Moore, BF, Carpenter, T, Peel, JL, Volckens, J, (2019). "The Fort Collins commuter study: Variability in personal exposure to air pollutants by microenvironment". *Indoor Air* 29.2, pp. 231–241.

Rosa, MJ, Hsu, HHL, Just, AC, Brennan, KJ, Bloomquist, T, Kloog, I, Pantic, I, Mercado García, A, **Wilson, A**, Coull, BA, Wright, RO, Téllez Rojo, MM, Baccarelli, AA, Wright, RJ, (2019). "Association between prenatal particulate air pollution exposure and telomere length in cord blood: Effect modification by fetal sex". *Environmental Research* 172, pp. 495–501.

Sanchez-Guerra, M, Peng, C, Trevisi, L, Cardenas, A, **Wilson, A**, Osorio-Yáñez, C, Niedzwiecki, MM, Zhong, J, Svensson, K, Acevedo, MT, Solano-Gonzalez, M, Amarasiriwardena, CJ, Estrada-Gutierrez, G, Brennan, KJ, Schnaas, L, Just, AC, Laue, HE, Wright, RJ, Téllez-Rojo, MM, Wright, RO, Baccarelli, AA, (2019). "Altered cord blood mitochondrial DNA content and pregnancy lead exposure in the PROGRESS cohort". *Environment International* 125.June 2018, pp. 437–444.

Tryner, J, Good, N, **Wilson, A**, Clark, ML, Peel, JL, Volckens, J, (2019). "Variation in gravimetric correction factors for nephelometer-derived estimates of personal exposure to PM2.5". *Environmental Pollution* 250, pp. 251–261.

Yan, M, **Wilson, A**, Bell, ML, Peng, RD, Sun, Q, Pu, W, Yin, X, Li, T, Anderson, GB, (2019). "The Shape of the Concentration-Response Association between Fine Particulate Matter Pollution and Human Mortality in Beijing, China, and Its Implications for Health Impact Assessment". *Environmental Health Perspectives* 127.6, p. 067007.
★ Health Effects Institute student/postdoc travel award winner, 2018.

Benka-Coker, M, Clark, M, Rajkumar, S, Young, B, Bachand, A, Balmes, J, Brook, R, Nelson, T, Volckens, J, Reynolds, S, **Wilson, A**, L'Orange, C, Good, N, Quinn, C, Koehler, K, Africano, S, Osorto Pinel, A, Peel, J, (2018). "Exposure to Household Air Pollution from Biomass Cookstoves and Levels of Fractional Exhaled Nitric Oxide (FeNO) among Honduran Women". *International Journal of Environmental Research and Public Health* 15.11, p. 2544.

Bilsback, KR, Eilenberg, SR, Good, N, *Heck, L, Johnson, M, Kodros, JK, Lipsky, EM, L'Orange, C, Pierce, JR, Robinson, AL, Subramanian, R, Tryner, J, **Wilson, A**, Volckens, J, (2018). "The Firepower Sweep Test: A novel approach to cookstove laboratory testing". *Indoor Air* 28.6, pp. 936–949.

Bose, S, Rosa, MJ, Mathilda Chiu, YH, Leon Hsu, HH, Di, Q, Lee, A, Kloog, I, **Wilson, A**, Schwartz, J, Wright, RO, Morgan, WJ, Coull, BA, Wright, RJ, (2018). "Prenatal nitrate air pollution exposure and reduced child lung function: Timing and fetal sex effects". *Environmental Research* 167.August, pp. 591–597.

Brunst, KJ, Sanchez-Guerra, M, Chiu, YHM, **Wilson, A**, Coull, BA, Kloog, I, Schwartz, J, Brennan, KJ, Bosquet Enlow, M, Wright, RO, Baccarelli, AA, Wright, RJ, (2018). "Prenatal particulate matter exposure and mitochondrial dysfunction at the maternal-fetal interface: Effect modification by maternal lifetime trauma and child sex". *Environment International* 112.March 2018, pp. 49–58.

Guo, L, Peng, C, Xu, H, **Wilson, A**, Li, Ph, Wang, H, Liu, H, Shen, L, Chen, X, Qi, X, Tang, Nj, Barrow, TM, Byun, HM, (2018). "Age at menarche and prevention of hypertension through lifestyle in young Chinese adult women: result from project ELEFANT". *BMC Women's Health* 18.1, p. 182.

Lee, AG, Le Grand, B, Hsu, HHL, Chiu, YHM, Brennan, KJ, Bose, S, Rosa, MJ, Brunst, KJ, Kloog, I, **Wilson, A**, Schwartz, J, Morgan, W, Coull, BA, Wright, RO, Baccarelli, AA, Wright, RJ, (2018). "Prenatal fine particulate exposure associated with reduced childhood lung function and nasal epithelia GSTP1 hypermethylation: Sex-specific effects". *Respiratory Research* 19.1, p. 76.

Lee, A, Leon Hsu, HH, Mathilda Chiu, YH, Bose, S, Rosa, MJ, Kloog, I, **Wilson, A**, Schwartz, J, Cohen, S, Coull, BA, Wright, RO, Wright, RJ, (2018). "Prenatal fine particulate exposure and early childhood asthma: Effect of maternal stress and fetal sex". *Journal of Allergy and Clinical Immunology* 141.5, pp. 1880–1886.

Wilson, A, Zigler, CM, Patel, CJ, Dominici, F, (2018). "Model-averaged confounder adjustment for estimating multivariate exposure effects with linear regression". *Biometrics* 74.3, pp. 1034–1044.

Wu, S, Gennings, C, Wright, RJ, **Wilson, A**, Burris, HH, Just, AC, Braun, JM, Svensson, K, Zhong, J, Brennan, KJ, Dereix, A, Cantoral, A, Schnaas, L, Téllez-Rojo, MM, Wright, RO, Baccarelli, AA, (2018). "Prenatal Stress, Methylation in Inflammation-Related Genes, and Adiposity Measures in Early Childhood: the Programming Research in Obesity, Growth Environment and Social Stress Cohort Study". *Psychosomatic Medicine* 80.1, pp. 34–41.

Bose, S, Chiu, YHM, Hsu, HHL, Di, Q, Rosa, MJ, Lee, A, Kloog, I, **Wilson, A**, Schwartz, J, Wright, RO, Cohen, S, Coull, BA, Wright, RJ, (2017). "Prenatal Nitrate Exposure and Childhood Asthma. Influence of Maternal Prenatal Stress and Fetal Sex". *American Journal of Respiratory and Critical Care Medicine* 196.11, pp. 1396–1403.

Chiu, YHM, Hsu, HHL, **Wilson, A**, Coull, BA, Pendo, MP, Baccarelli, A, Kloog, I, Schwartz, J, Wright, RO, Taveras, EM, Wright, RJ, (2017). "Prenatal particulate air pollution exposure and body composition in urban preschool children: Examining sensitive windows and sex-specific associations". *Environmental Research* 158.March, pp. 798–805.

Colicino, E, **Wilson, A**, Frisardi, MC, Prada, D, Power, MC, Hoxha, M, Dioni, L, Spiro, A, Vokonas, PS, Weisskopf, MG, Schwartz, JD, Baccarelli, AA, (2017). "Telomere Length, Long-Term Black Carbon Exposure, and Cognitive Function in a Cohort of Older Men: The VA Normative Aging Study". *Environmental Health Perspectives* 125.1, pp. 76–81.

Liu, JC, **Wilson, A**, Mickley, LJ, Dominici, F, Ebisu, K, Wang, Y, Sulprizio, MP, Peng, RD, Yue, X, Son, JY, Anderson, GB, Bell, ML, (2017). "Wildfire-specific Fine Particulate Matter and Risk of Hospital Admissions in Urban and Rural Counties". *Epidemiology* 28.1, pp. 77–85.

Liu, JC, **Wilson, A**, Mickley, LJ, Ebisu, K, Sulprizio, MP, Wang, Y, Peng, RD, Yue, X, Dominici, F, Bell, ML, (2017). "Who Among the Elderly Is Most Vulnerable to Exposure to and Health Risks of Fine Particulate Matter From Wildfire Smoke?" *American Journal of Epidemiology* 186.6, pp. 730–735.

Peng, C, Cayir, A, Sanchez-Guerra, M, Di, Q, **Wilson, A**, Zhong, J, Kosheleva, A, Trevisi, L, Colicino, E, Brennan, K, Dereix, AE, Dai, L, Coull, BA, Vokonas, P, Schwartz, J, Baccarelli, AA, (2017). "Associations of Annual Ambient Fine Particulate Matter Mass and Components with Mitochondrial DNA Abundance". *Epidemiology* 28.6, pp. 763–770.

Peng, C, Sanchez-Guerra, M, **Wilson, A**, Mehta, AJ, Zhong, J, Zanobetti, A, Brennan, K, Dereix, AE, Coull, BA, Vokonas, P, Schwartz, J, Baccarelli, AA, (2017). "Short-term effects of air temperature and mitochondrial DNA lesions within an older population". *Environment International* 103, pp. 23–29.

Wilson, A, Chiu, YHM, Hsu, HHL, Wright, RO, Wright, RJ, Coull, BA, (2017a). "Bayesian distributed lag interaction models to identify perinatal windows of vulnerability in children's health". *Biostatistics* 18.3, pp. 537–552. arXiv: `1612.05800`.

Wilson, A, Chiu, YHM, Hsu, HHL, Wright, RO, Wright, RJ, Coull, BA, (2017b). "Potential for Bias When Estimating Critical Windows for Air Pollution in Children's Health". *American Journal of Epidemiology* 186.11, pp. 1281–1289.

Wilson, A, Reich, BJ, Nolte, CG, Spero, TL, Hubbell, B, Rappold, AG, (2017). "Climate change impacts on projections of excess mortality at 2030 using spatially varying ozone-temperature risk surfaces". *Journal of Exposure Science & Environmental Epidemiology* 27.1, pp. 118–124.

Zhong, J, Trevisi, L, Urch, B, Lin, X, Speck, M, Coull, BA, Liss, G, Thompson, A, Wu, S, **Wilson, A**, Koutrakis, P, Silverman, F, Gold, DR, Baccarelli, AA, (2017). "B-vitamin Supplementation Mitigates Effects of Fine Particles on Cardiac Autonomic Dysfunction and Inflammation: A Pilot Human Intervention Trial". *Scientific Reports* 7.1, p. 45322.

Wilson, A, Rappold, AG, Neas, LM, Reich, BJ, (2014). "Modeling the effect of temperature on ozone-related mortality". *The Annals of Applied Statistics* 8.3, pp. 1728–1749. arXiv: `1412.1642`.

Wilson, A, Reich, BJ, (2014). "Confounder selection via penalized credible regions". *Biometrics* 70.4, pp. 852–861.

Wilson, A, Reif, DM, Reich, BJ, (2014). "Hierarchical dose-response modeling for high-throughput toxicity screening of environmental chemicals." *Biometrics* 70.1, pp. 237–46.

Briefel, RR, **Wilson, A**, Cabili, C, Hedley Dodd, A, (2013). "Reducing calories and added sugars by improving children's beverage choices." *Journal of the Academy of Nutrition and Dietetics* 113.2, pp. 269–275.

Dodd, AH, Briefel, R, Cabili, C, **Wilson, A**, Crepinsek, MK, (2013). "Disparities in Consumption of Sugar-Sweetened and Other Beverages by Race/Ethnicity and Obesity Status among United States Schoolchildren". *Journal of Nutrition Education and Behavior* 45.3, pp. 240–249.

Reif, DM, Sypa, M, Lock, EF, Wright, FA, **Wilson, A**, Cathey, T, Judson, RR, Rusyn, I, (2013). "ToxPi GUI: an interactive visualization tool for transparent integration of data from diverse sources of evidence". *Bioinformatics* 29.3, pp. 402–403.

O'Neil, SS, Lake, T, Merrill, A, **Wilson, A**, Mann, DA, Bartnyska, LM, (2010). "Racial Disparities in Hospitalizations for Ambulatory Care-Sensitive Conditions". *American Journal of Preventive Medicine* 38.4, pp. 381–388.

Briefel, RR, Crepinsek, MK, Cabili, C, **Wilson, A**, Gleason, PM, (2009). "School food environments and practices affect dietary behaviors of US public school children." *Journal of the American Dietetic Association* 109.2 Suppl, S91–107.

Briefel, RR, **Wilson, A**, Gleason, PM, (2009). "Consumption of low-nutrient, energy-dense foods and beverages at school, home, and other locations among school lunch participants and nonparticipants." *Journal of the American Dietetic Association* 109.2 Suppl, S79–90.

Crepinsek, MK, Gordon, AR, McKinney, PM, Condon, EM, **Wilson, A**, (2009). "Meals offered and served in US public schools: do they meet nutrient standards?" *Journal of the American Dietetic Association* 109.2 Suppl, S31–43.

Fox, MK, Dodd, AH, **Wilson, A**, Gleason, PM, (2009). "Association between school food environment and practices and body mass index of US public school children." *Journal of the American Dietetic Association* 109.2 Suppl, S108–17.

Fox, MK, Gordon, AR, Nogales, R, **Wilson, A**, (2009). "Availability and consumption of competitive foods in US public schools." *Journal of the American Dietetic Association* 109.2 Suppl, S57–66.

Book Chapters

Dominici, A, **Wilson, A**, (2018). "Dynamics of Environmental Epidemiology". *Handbook of Environmental and Ecological Statistics*. Ed. by AE Gelfand, M Fuentes, JA Hoeting, and RL Smith. Boca Raton, FL: Chapman & Hall/CRC. Chap. 24.

Non-Peer-Reviewed publications

Trenholm CA, Mabli JG, Wilson A (2009). *SCHIP Children: How Long Do They Stay and Where Do They Go?* Princeton, NJ: Robert Wood Johnson Foundation.

Gleason PM, Briefel RR, Wilson A, Dodd AH (2009). *School Meal Program Participation and Its Association with Dietary Patterns and Childhood Obesity.* Final Report submitted to U.S. Department of Agriculture Economic Research Service Food Assistance Branch. Cambridge, MA: Mathematica Policy Research.

O'Neil, S, Merrill AR, Wilson A, Lake TK (2008). *Differences in Hospitalizations for Ambulatory Care Sensitive Conditions Among Maryland Medicare Beneficiaries – 2006.* Baltimore, MD:

Maryland Health Care Commission, Center for Analysis and Information Services.

O'Neil S, Merrill A, Wilson A, Lake T (2008). *Assessment of Disparities in Potentially Avoidable Hospitalizations of Maryland Medicare Patients.* Final Report submitted to the Maryland Health Care Commission. Cambridge, MA: Mathematica Policy Research, December.

Limpa-Amara S, Lake TK, Wilson A (2005). *Trends in Diabetes Mortality Among Medicare FFS Beneficiaries with Diabetes, 1992-2003.* Final report submitted to the Centers for Medicare & Medicaid Services and the Centers for Disease Control and Prevention. Cambridge, MA: Mathematica Policy Research.

FUNDING

Invited

Biometrics Society Spring Meeting (ENAR), Houston, TX	2022
Columbia Mailman School of Public Health, Department of Biostatistics (Virtual)	2022
Computational and Methodological Statistics (CMStatistics), London, UK (Virtual)	2021
University of Southern California, Division of Biostatistics (Virtual)	2021
International Society of Environmental Epidemiology (ISEE) (Virtual)	2021
International Chinese Statistical Association (ICSA) Intl. Conf., Hangzhou, China	2019
Harvard T. H. Chan School of Public Health, Dept. of Biostatistics, Boston, MA	2019
International Society of Environmental Epidemiology (ISEE), Ottawa, Canada	2018
Virginia Tech University, Dept. of Statistics, Blacksburg, VA	2018
International Conference on Health Policy Statistics, Charleston, SC	2018
Tianjin Medical University, Dept. of Occ. & Envr. Health, Tianjin, China	2017
Intl. Symp. on Emerging Contaminants and Envr. Nanotechnology, Tianjin, China	2017
Colorado State University, Epidemiology, Fort Collins, CO	2016
NC State University, Dept. of Statistics 75th Anniversary Symposium, Raleigh, NC	2016
Harvard T. H. Chan School of Public Health, Dept. of Biostatistics, Boston, MA	2016
New England Statistics Symposium (NESS), New Haven, CT	2016
Colorado State University, Dept. of Statistics, Fort Collins, CO	2016
VI-MSS Workshop on Environmental Statistics, Kolkata, India, *Poster*	2015
Public Health Foundation of India, New Delhi, India	2015
Biometrics Society Spring Meeting (ENAR), Baltimore, MD	2014
RAND Corporation, Santa Monica, CA	2014
National Center for Atmospheric Research, Boulder, CO	2014
University of Colorado, Dept. of Mathematical and Statistical Sciences, Denver, CO	2014
Harvard School of Public Health, Dept. of Biostatistics, Boston, MA	2014
University of North Carolina, Institute for the Environment, Chapel Hill, NC	2014
Colorado State University, Dept. of Statistics, Fort Collins, CO	2013
Atmospheric Modeling Division, U.S. Environmental Protection Agency, RTP, NC	2013

Contributed

IS Global Exposome Data Challenge Event, virtual	2021
International Society of Environmental Epidemiology (ISEE), Rome, Italy, *Poster*	2016
Biometrics Society Spring Meeting (ENAR), Austin, TX	2016
Joint Statistical Meetings (JSM), Boston, MA	2014
Graduate Research Symposium, Raleigh, NC, *Poster*	2014
International Society for Environmental Epidemiology (ISEE), Basel, Switzerland, *Poster*	2013
Joint Statistical Meetings (JSM), Montreal, QC, Canada, *Topic contributed*	2013
Biometrics Society Spring Meeting (ENAR), Orlando, FL	2013
Society of Toxicology's 51th Annual Meeting (SOT), San Francisco, CA, *Poster*	2012
STATMOS Sponsored Seminar, North Carolina State University, Raleigh, NC	2011
Society of Toxicology's 50th Annual Meeting (SOT), Washington, DC, *Poster*	2011

Teaching

Colorado State University

STAT 440: Bayesian Data Analysis	S17, S18, S19, S20, S21, S22
STAT 501: Statistical Science	F18, F19
STAT 540: Data Analysis and Regression	F16, F17, F19
STAA 554: Data Visualization Methods	S22
STAA 566: Mixed Models	S19
STAA 578: Machine Learning	S20, S21, S22

Guest Lectures

ERHS 535: R Programming for Research (Instructor: G. B. Anderson)   F18
    Title: *Practical R on Summit High Performance Computing System*

Workshops and Short Courses

Invited Workshop on Critical Windows and Distributed Lag Regression   February 2019
    Icahn School of Medicine at Mount Sinai, New York, NY. Full day workshop.
    Joint with B Coull, C Gennings, and RO Wright.

Advising & Mentoring

Graduate Research Advising & Research Mentoring

Danielle Demateis, Statistics PhD, in progress (Joint with Joshua Keller)
– Honorable Mention: NSF Graduate Research Fellowship Program (GRFP), 2022
Seongwon Im, Statistics PhD, in progress
Lauren (Heck) Hoskovec, Statistics PhD, 2022
– Next position: Western EcoSystems Technology, Inc. (WEST)
– Winner: Health Effects Institute (HEI) Travel Award, 2019
– Winner: CSU Statistics, Elmer E. Remmenga Scholarship In Applied Statistics, 2018 and 2019
– Honorably Mention: 2021 JSM ENVR Section Student Paper Awards.
– Global Sustainability Fellow, School of Global Environmental Sustainability, CSU, 2020-2021
Daniel Mork, Statistics PhD, 2021
– Next position: Postdoctoral Fellow at Harvard Biostatistics
– Winner: James R. zumBrunnen Statistical Collaboration Award, 2020
– Winner: CSU Statistics, Boes Excellence in Teaching Award, 2019
– Winner: College of Natural Sciences Outstanding Scholar Award, 2020
– Winner: Health Effects Institute (HEI) Jane Warren Trainee Conference Award, 2021
Emily Williams, Statistics MS 2020 (joint with Zach Weller)

Undergraduate Research Mentoring

Olivia Beck, Statistics, BS '20 (honors thesis advisor)
– Thesis title: *College safe ride programs: Bayesian analysis of ridership with safe ride home versus anywhere policies*

- Winner: Outstanding poster distinction for undergraduate posters at Joint Math Meetings, 2020
- Winner: CSU Statistic and Colorado-Wyoming Chapter of the ASA, Maurice Davies Award, 2020
- Next position: Statistics PhD student at Pennsylvania State University

Freya (Ziqian) Fu, Statistics & Psychology, BS '17.
- Next position: Statistics MS student at Duke University.

PhD Committee Member - Colorado State University

Sierra Pugh, Statistics, in progress
Nathan Ryder, Statistics, in progress
Ethan Walker, Epidemiology, PhD '19
Wande Benka-Coker, Epidemiology, PhD '19
Miranda Fix, Statistics, PhD '18
Meilin Yan, Epidemiology, PhD '18
Kristen Fedak, Epidemiology, PhD '18
Megan Benka-Coker, Epidemiology, PhD '18

PhD Committee Member - Other Institutions

Sebastian Rowland, Environmental Health Science, Columbia University, in progress

MS Committee Member - Colorado State University

Hieu Nguyen, Statistics, MS '19

Career Development Award Mentoring

Sheena Martenies, Assistant Professor in Kinesiology and Community Health at the University of Illinois
Examining the joint effects of prenatal exposures to traffic-related air pollutants and social determinants of health on childhood obesity outcomes. NIH/Environmental influences on Child Health Outcomes (ECHO) Opportunities and Infrastructure Fund (OIF).

Christian L'Orange, Research Scientist in Mechanical Engineering, Colorado State University
A Novel Approach of Quantifying Real-Time Aerosol Concentrations from Gravimetric Filter Collection. CDC/NIOSH K01.

Working Group Organization

Creator and organizer of the Environmental Biostatistics Working Group at CSU. This group seeks to build collaboration and community among faculty and students working in biostatistics with application in environmental and public health.

Service & Professional Membership

Departmental Service, Department of Statistics, Colorado State University

Data Science Curriculum Committee	F16-S17
Doctoral Candidacy Examination Committee	F16-S18, F19-S20
Statistics Seminar Series	S17-S18 (chair)
Computing Committee	F17-S21 (chair)
Search Committee	F17-S18, F18-S19, F19-S20
Graduate Admission Committee	F18-S19
Communication Committee	F20-S21
Masters of Applied Statistics (MAS) Committee	F20-S21

College and University Service, Colorado State University

Faculty Council	F22-present

Departmental Service, Department of Biostatistics, HSPH

HSPH Environmental Seminar organizer	F14-S16
HSPH NIH/Heatwave Working Group coordinator	F15-S16

Associate Editor

Biometrics	2022-Present
Journal of Agricultural, Biological, and Environmental Statistics (JABES)	2020-Present

Reviewer

American Journal of Epidemiology (AJE)
Biometrics
Biostatistics
BMJ Open
Environmental Health
Environmental Health Perspectives (EHP)
Environmental International
International Journal of Epidemiology (IJE)
Journal of the Academy of Nutrition and Dietetics (JAND)
Journal of Agricultural, Biological, and Environmental Statistics (JABES)
Journal of the American Statistical Association (JASA)
Journal of the Royal Statistical Society, Series A (JRSS A)
Journal of the Royal Statistical Society, Series C (JRSS C)
PLOS ONE
Proceedings of the National Academy of Science (PNAS)
Statistical Methods in Medical Research
Statistics in Medicine
Statistics & Probability Letters

Grant Reviewer

High Plains Intermountain Center for Agricultural Health and Safety (HICAHS) Pilot Grants: 2016, 2017, 2018
Icahn School of Medicine at Mount Sinai NIEHS P30 Pilot Grant: 2019
Walter A. Rosenblith New Investigator Award, Health Effects Institute: 2020, 2021 ($\times$2)
US EPA Science To Achieve Results (STAR) Research Program: 2022

Conference Organization

IMS New Researchers Conference (NRC), co-organizer, Fort Collins, CO   2019

Conference Session Organization

Innovative Methods for Identifying Perinatal Critical Windows with Mixtures   2021
  International Society for Environmental Epidemiology (ISEE) Symposium

Professional Membership

Member: ASA, ENAR, ISEE

Last updated: July 11, 2022