

Jamil M Lane, PhD, MPH

Curriculum Vitae

T32 Postdoctoral Research Fellow Department of Environmental Medicine and Climate Science Icahn School of Medicine at Mount Sinai New York, NY 10029

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Education

Doctor of Philosophy in Human Development, University of Rochester, Rochester, NY.

- Dissertation: Longitudinal effects of obesogenic food environments on body mass index and executive functioning in low-income adolescents.
- Advisor: Silvia Sörensen, Ph.D.

2017 Master of Public Health, La Salle University, Philadelphia, PA.

- Capstone Thesis: Examining interpersonal relationship factors that influence dietary and physical activity practices in African American adolescents.
- Advisor: Daniel Rodriguez, Ph.D.

2012 Bachelor of Science in Psychology, Wilmington University, New Castle, DE.

Postgraduate Training

2021 – Present NIH/NICHD T32 Postdoctoral Fellow, Pediatric Environmental Health Research Fellowship

Department of Environmental Medicine and Public Health Icahn School of Medicine at Mount Sinai, New York, NY

• Advisor: Robert O Wright, M.D., MPH

Fellowships, Honors, Awards

2024	ISCHE 6 th International Retreat Scholarship Award
2022 - 2024	NIEHS – Loan Repayment Program (LRP) Award in Pediatric Research
2021 - 2024	NICHD – Ruth L. Kirschstein National Research Service Award
2017 - 2021	University of Rochester – William F. and Margaret W. Scandling Scholar Award (Tuition and Stipend)
2020	Delta Tau – Delta Omega Honorary Society in Public Health
2020	American Psychological Association – Advance Training Institute on Structural Equation Modeling
2019	Warner School of Education – Doctoral Conference Presentation Award
2018	Society for the Study of Human Development – SSHD Conference Scholarship
2018	NIH – Intramural Research Training Award (IRTA) Fellowship
2018	Warner School of Education – Doctoral Conference Presentation Award
2018	American Public Health Association – Food & Nutrition Section Fellowship Award
2015	Golden Key International Honor Society
2008 – 2009	The Arcadia University Distinguished Scholarship
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Grants and Funding Activity

2023 – 2024 NIEHS: P30 ES023515

Center on Health and Environment Across the LifeSpan, Icahn School of Medicine at Mount Sinai Study Title: Inhibitory control mediates the association between prenatal exposure to per- and polyfluoroalkyl substances and child body mass index.

Role: Principal Investigator

Funded: \$25,000

2022 – 2024 NIEHS: Loan Repayment Program (LRP) Award in Pediatric Research: L40ES034603

Study Title: Effect of prenatal manganese exposure on working memory performance in school-

age Mexican children. Role: Principal Investigator

Funded: \$96,100

2021 - 2024 NICHD: T32 HD049311

Ruth L. Kirschstein National Research Service Award

Research Training Program in Environmental Pediatrics, Icahn School of Medicine at Mount Sinai

Principal Investigator: Robert O Wright, M.D., MPH

Role: Postdoctoral Research Fellow

2019 – 2019 NSF Innovation Corps (I-Corps) Site Program

Ain Center for Entrepreneurship, University of Rochester

Role: Entrepreneurial Lead

Funded: \$3,000

Research Experience

2023 – Present Scientific Collaborator: University of Iowa, College of Public Health, Iowa City, IA

Microbial Exposomics Lab

Co-Directors: Shoshannah Eggers, Ph.D. and Vishal Midya, Ph.D.

2017 – 2021 Predoctoral Trainee & Scandling Scholar: Warner School of Education and Human Development,

University of Rochester, Rochester, NY

Laboratory for Aging, Population Health, Disparities, and Intervention Research

Principal Investigator: Silvia Sörensen, Ph.D.

2019 – 2021 Graduate Research Coordinator: School of Nursing, University of Rochester, Rochester, NY

Psychoneuroimmunology Lab

Principal Investigator: Kathi Heffner, Ph.D.

2018 – 2019 Graduate Research Assistant: Warner School of Education and Human Development,

University of Rochester, Rochester, NY

Moskowitz Project

Principal Investigator: Dena Phillips Swanson, Ph.D.

2018 – 2018 IRTA Summer Research Fellow: National Institutes of Health, Bethesda, MD

National Institute of Child Health and Human Development

Social and Behavioral Sciences Branch

Principal Mentors: Tonja R. Nansel, Ph.D., and Leah M. Lipsky, Ph.D., MHS.

2015 – 2017 **Psychology Research Assistant**: Perelman School of Medicine, University of Pennsylvania,

Philadelphia, PA

The Center on the Continuum of Care in Addictions

Principal Investigator: James R. McKay, Ph.D.

2016 – 2017 M.P.H. Practicum: Clinical Research Assistant: School of Nursing, University of Pennsylvania,

Philadelphia. PA

The Center for Health Equity Research

Principal Mentors: Janet Deatrick, Ph.D., FAAN and Cynthia Paidipati, Ph.D., MSN.

2014 – 2015 Clinical Research Assistant: Wills Eye Hospital, Philadelphia, PA

Glaucoma Research Center

Principal Investigator: Lisa Hark, Ph.D., RD.

Professional Experience

2023 – 2025 2018 – 2019 Research to Action Fellow: International Society for Children's Health and the Environment

Food and Nutrition Fellow: American Public Health Association

Teaching Experience

Department of Counseling and Human Development, University of Rochester

Lecturer

- $\bullet \quad \text{ED510: Research in Adolescent Development: Biopsychosocial Perspective (Doctoral Level)}\\$
 - Spring 2021
- ED481: School, Family, and Community Relations (Master's and Doctoral Level)
 - o Fall 2020
- ED406: Master's Research Methods (Masters Level)
 - o Spring 2019, Summer 2019

Teaching Assistant

- ED506: Concepts and Issues in Social Science Research (Fall 2019)
 - o Professor: Nancy Ares, Ph.D.
- ED406: Master's Research Methods (Fall 2018)
 - o Professor: Joyce Duckles, Ph.D.

Quantitative Consulting Services

- Quantitative Consultant for ED504: Quantitative Research Methods (2020 2021)
 - Professor: Samantha Daley, Ed.D.

Mentorship Experience

Graduate Students

- Alexis Zimmer, PhD in Human Development, University of Rochester (2021 2023)
- Sabrina Popal, MSc in Epidemiology, Icahn School of Medicine at Mount Sinai (2023 Present)

School-based Program

 New York Academy of Science Afterschool Mentorship Program at KIPP Star College Prep Charter School (2022 – 2023)

Publications

Peer-reviewed Manuscripts

- [1] Lane, J.M., Merced-Nieves, F.M., Liu, S.H., Pantic, I., Wright, R.J., Martinez, S., Tellez Rojo, M.M., & Wright, R.O. (2024). Prenatal exposure to metal mixtures and childhood temporal processing in the PROGRESS Birth Cohort Study. Modification by childhood obesity. *Science of the Total Environment*. PMID: 38309331
- [2] Midya, V., Nagdeo, K., Lane, J.M., Torres-Olascoaga, L.A., Gennings, C., Horton, M.K., Tellez-Rojo, M.M., Wright, R.O., Arora, M., & Eggers, S. (2024). Prenatal metal exposures and childhood gut microbial signatures are associated with depression score in late childhood. *Science of the Total Environment*, 916, 170361. PMID: 38278245
- [3] Hsu, H.L., Lane, J.M., Schnaas, L., Coull, B.A., Osorio-Valencia, E., Chiu, Y.M., Wilson, A., Just, A.C., Kloog, I., Bellinger, D., Tellez Rojo, M.M., & Wright, R.O. (2024). Sensitive windows of prenatal air pollution and cognitive functioning in pre-school age Mexican children. *Environmental Epidemiology*, 8(1):p e291. PMID: 38343731

- [4] Zang, X., Wang, J., **Lane, J.M.**, & Sörensen, S. (2023). Investigating racial disparities in cancer crowdfunding: A comprehensive study medical GoFundMe campaigns. *Journal of Medical Internet Research*, 2023;25:e51089. PMID: 38085562
- [5] Midya, V., Lane, J.M., Gennings, C., Torres-Olascoaga, L.A., Wright, R.O., Arora, M., Tellez-Rojo, M.M., & Eggers, S. (2023). Identifying gut microbial cliques in association with prenatal Pb exposure using Microbial Co-occurrence Analysis (MiCA). *Environmental Science & Technology*. PMID: 37878664
- [6] Lane, J.M., Curtin, P., Chelonis, J., Pantic, I., Martinez, S., Tellez Rojo, M.M., & Wright, R.O. (2023). Prenatal manganese biomarkers and operant test battery performance in Mexican children: Effect modification by child sex. *Environmental Research*. PMID: 37574101
- [7] Lane, J.M., Wright, R.O., & Eggers, S. (2023). The interconnection between obesity and executive function in adolescence: The role of the gut microbiome. *Neuroscience and Biobehavioral Reviews*. 105337. PMID: 37524139
- [8] Lane, J.M., Liu, S.H., Pantic, I., Martinez, S., Pantic, I., Tellez Rojo, M.M., Amarasiriwardena, C., & Wright, R.O. (2023). Sex-specific association between prenatal manganese exposure and working memory in school aged children in Mexico City: An exploratory multi-media approach. *Environmental Pollution*. 121965. PMID: 37286025
- [9] Lane, J. M., Zimmer, A., Quiñones, M.M., & Sörensen, S. (2023). Racial differences in the effect of verbal and non-verbal memory on concrete planning for future care needs among older adults: A multi-group structural equation modeling approach. Aging, Neuropsychology, and Cognition, 1-18. PMID: 37317954
- [10] Lane, J. M., Habib, D., & Curtis, B. (2023). Linguistic methodologies to surveil the leading causes of mortality: Scoping review of Twitter for public health data. *Journal of Medical Internet Research* 25, e39484. PMID: 37307062
- [11] Lane, J. M., & Sörensen, S. (2022). The relationship between grade-level and breakfast skipping among adolescents: The mediating effects of dietary autonomy. *Health Behavior Research*, 5(1). https://doi.org/10.4148/2572-1836.1105
- [12] Sanjeevi, N., Lane, J.M., Lipsky, L., Haynie, D, & Nansel, T. (2022). The association of motivation and perceived social norms with eating behaviors in emerging adults. *Health Psychology and Behavioral Medicine*, 10(1), 81-91. PMID: 34993007
- [13] Paidipati, C. P., Deatrick, J. A., Eiraldi, R. B., Ulrich, C. M., Lane, J. M., & Brawner, B. M. (2021).

 Caregivers' perspectives on the contextual influences within family management for ethnically diverse children with ADHD. *Journal for Specialists in Pediatric Nursing*, 27(2), e12365. PMID: 34962094
- [14] Lane, J. M., Qualls, B.W., Freeman, J.D., & Rodriguez, D. (2021). Association of cancer worry and physical activity behaviors in adults without cancer. *American Journal of Health Studies*, 36(2), 88–93. https://doi.org/10.47779/ajhs.2021.648
- [15] Lane, J. M., & Rodriguez, D. (2018). Examining interpersonal relationship factors that influence dietary and physical activity practices in African American adolescents. *The International Journal of Health, Wellness, and Society*, 8(2), 35-47. https://doi.org/10.18848/2156-8960/CGP/v08i02/35-47
- [16] Freeman, J., & Lane, J. (2016). Examining the role of social networks and social media technologies on continuing care interventions for substance use disorders. *The Addictions Newsletter*, *American Psychological Association*, *Division 50*, 25(2), 18-20.

Submitted and Under Review Manuscripts

- [17] Zhang, X., Lin, C., Zhang, M., Lane, J.M., & Xu, X. (In Revision). Understanding cancer conversations: An analysis of retweet patterns on social media. *Journal of Medical Internet Research*
- [18] Midya, V., Nagdeo, K., Gennings, C., Lane, J.M., Torres-Olascoaga, L.A., Horton, M.K., Tellez-Rojo, M.M., Wright, R.O., Arora, M., & Eggers, S. (Under Review). Akkermansia muciniphila modifies the association between prenatal metal exposure and childhood depression symptoms.
- [19] Lane, J.M., Groth, S., & Sörensen, S. (In Revision). Longitudinal effects of chemical and non-chemical stressors on executive functioning in low-income African American adolescents: A latent growth modeling. *Brain & Cognition*.
- [20] Alcala, C.*, Lane, J.M.*, Midya, V., Eggers, S., Wright, R.O., & Rosa, M.J. (In Revision). Exploring the link between prenatal exposome, respiratory health, and executive function in children. *Frontiers in Public Health*. *Co-First Authorship
- [21] Midya, V., Agrawal, M., Lane, J.M., Gennings, C., Tarassishin, L., Torres-Olascoaga, L.A., Eggers, J., Picker, M., Peter, I., Faith, J.J., Arora, M., Téllez-Rojo, M.M., Wright, R.O., Colombel, J.F., & Eggers, S. (Under Review). Prenatal metal exposures and childhood gut microbial cliques are associated with elevated fecal calprotectin in late childhood.
- [22] Cohen, N.*, Mascari, M.*, Yao, M., Huang, J., Lane, J.M., Reeves, K.W. Balasubramanian, R., Liu, Z., Laouali, N., Daniel, L.M., Law, E., Chen, C., Seng, C.Y., Shiao-Yng, C., Kee, M., Valvi, D., & Oulhote, Y. (Under Review). Gestational exposure to perfluoroalkyl substances and benzophenones and autistic traits in Singaporean children: The Growing Up in Singapore Towards Healthy Outcomes (GUSTO) Longitudinal Cohort Study.
- [23] Lane, J.M.*, Zhang, X.*, Alcala, C., Midya, V., Nagdeo, K., Rui, L., & Wright, R.O. (In Prep). Tweeting environmental pollution: Analyzing Twitter language to uncover its correlation with county-level obesity rates in the United States. *Co-First Authorship

Manuscripts In Preparation

- [24] Lane, J.M.*, Hsu, H.L.*, Osorio-Valencia, E., Just, A.C., Valeri, L., Coull, B., Téllez-Rojo, M.M., & Wright, R.O. (In Prep). Inhibitory control mediates the association between perinatal exposure to air pollution and childhood obesity: The PROGRESS cohort study. *Co-First Authorship
- [25] Zimmer, A., Lane, J.M., & Sörensen, S. (In Prep). Examining the effects of religion, spirituality, and mental health on older adult cognition.
- [26] Lane, J. M., Quiñones, M.M., & Sörensen, S. (In Prep). Race modifies the association between depression and cognitive function among spiritual older adults.
- [27] Lane, J. M., Merced-Nieves, F.M., Knobel, P., Wright, R.O., & Sörensen, S. (In Prep). Exploring the dynamic interplay between obesogenic food environment, dietary intake, and neurodevelopment in adolescents: An ecological-based theoretical review.
- [28] Knobel, P., Lane, J.M., Wright, R.O., & Eggers, S. (In Prep). Exploring the nexus: Built environment, executive function, and gut microbiome mechanisms.
- [29] Lane, J.M., Merced-Nieves, F.M., Nagdeo, K., Midya, V., Liu, S.H., Martínez, S., Pantic, I., Bellinger, D.C., Téllez Rojo, M.M., & Wright, R.O. (In Prep). Prenatal Mn exposure mitigates postnatal Pb-induced dysfunction in multidimensional prefrontal cortex activities.

- [30] Lane, J.M.*, Alcala, C.*, Midya, V., Eggers, S., Tamayo-Ortiz, M., Lamadrid, H., Téllez Rojo, M.M., Carroll, K., Wright, R.O., & Rosa, M.J. (In Prep). Investigating the prenatal chemical exposome on childhood asthma and neurodevelopment. *Co-First Authorship
- [31] Lane, J.M., Midya, V., Eggers, S., Alcala, C., Gennings, C., Martínez, S., Téllez Rojo, M.M., Arora, M., & Wright, R.O. (In Prep). Sexual dimorphism in the programming effects of prenatal metal-derived signatures on neurocognitive dimensions in school age Mexican children.
- [32] Midya, V., Yitshak-Sade, M., Lane, J.M., Gennings, C., Tamayo-Ortiz, M., Lamadrid, H., Kloog, I., He., M., Téllez Rojo, M.M., Arora, M., & Wright, R.O. (In Prep). Identifying susceptible subgroups of children based on the interaction between prenatal metal-derived signatures and air pollution in the PROGRESS Study.
- [33] Lane, J.M., Cohen, N., Midya, V., Eggers, S., Valvi, D., Téllez Rojo, M.M., & Wright, R.O. (In Prep).

 Associations of prenatal phthalates and their mixture with latent profiles of cognitive dimensions.
- [34] Svensson, K.*, Lane, J.M.*, Chelonis, J., Gennings, C., Schnaas, L., Pantic, I., Tellez-Rojo, M.M., & Wright, R.O. (In Prep). Developmental Pb exposure increases rate of forgetting in a Delayed Matchingto-Sample tasks among Mexican children. *Co-First Authorship
- [35] Lane, J.M., Aris, I.M., Hsu, H.L., Wright, R.J., Martinez, S., Tellez Rojo, M.M., Oken, E., & Wright, R.O. (In Prep). Sex-specific trajectories of early-life body mass index peak-rebound patterns and their impact on inhibitory control in Mexican children.
- [36] Midya, V., Lane, J.M., Eggers, S., Torres-Olascoaga, L.A., Martínez, S., Gennings, C., Austin, C., Téllez-Rojo, M.M., Wright, R.O., & Arora, M. (In Prep). Consistency in metal dynamics during pregnancy predicts depression risk in late childhood: A prospective cohort study.
- [37] Lane, J.M., Liu, S.H., Midya, V., Eggers, S., Alcala, C., Svensson, K., Martínez, S., Téllez Rojo, M.M., & Wright, R.O. (In Prep). Postnatal Pb-induced dysfunction in multidimensional lateral prefrontal cortex activities: A multi-group structural equation model approach.

Presentations

- [1] Nagdeo, K., Midya, V., Gennings, C., Lane, J.M., Torres-Olascoaga, L.A., Horton, M.K., Tellez-Rojo, M.M., Wright, R.O., Arora, M., & Eggers, S. (2023, Nov). Akkermansia muciniphila may mediate the association between prenatal metal mixture exposure and childhood depressive symptoms. Poster presentation: American Public Health Association, 2023 Annual Meeting and Expo, Atlanta, GA.
- [2] Midya, V., Lane, J.M., Torres-Olascoaga, L.A., Wright, R.O., Arora, M., Tellez-Rojo, M.M., Gennings, C., & Eggers, S. (2023, June). Identifying gut microbial cliques in association with prenatal Pb exposure using Microbial Co-occurrence Analysis (MiCA): Oral Presentation: International Society for Environmental Epidemiology (ISEE) North America Chapter Conference, Corvallis, OR.
- [3] Lane, J.M., Merced-Nieves, F.M., Chelonis, J., Liu, S.H., Pantic, I., Martinez, S., Tellez Rojo, M.M., & Wright, R.O. (2023, May). Childhood body mass index modifies the relationship between prenatal manganese exposure and temporal processing in Mexican children. Poster Presentation: USA-Latin American Exposome Symposium, Mexico City, Mexico.
- [4] Lane, J. M., Liu, S.H., Schnaas, L., Martinez, S., Tellez Rojo, M.M., Curtin, P., Amarasiriwardena, C., & Wright, R.O. (2022, Sept). Prenatal manganese and working memory in school-aged children in Mexico City: A multi-media biomarker approach. Poster Presentation: International Society for Environmental Epidemiology (ISEE), 34th ISEE Annual Conference, Athens, Greece.

- [5] Taylor-Smalls, S.A., Timoney, P., & Lane, J.M. (2022, April). The impact of midwifery continuity of care on adherence to care in a US urban setting. Stony Brook School of Nursing's Annual Research Day. Stony Brook, NY.
- [6] Lane, J. M. & Sörensen, S. (2020, April). The association of marital status with working memory in a community-dwelling sample of older adults. Poster Presentation: Association for Psychological Science (APS), 32nd APS Annual Convention, Chicago, IL.
- [7] Boxell, O., Lane, J. M., & Sörensen, S. (2020, April). Visuospatial and narrative memory predict verbal learning capacity in older adults: the effects of executive function, mental health, and race. Poster Presentation: Association for Psychological Science (APS), 32nd APS Annual Convention, Chicago, IL.
- [8] Lane, J. M., & Sörensen, S. (2019, Oct). Examining the association between cancer-related anxiety and physical activity in adults. Poster Presentation: Society for the Study of Human Development 11th Biennial Meeting, Portland, OR.
- [9] Lane, J. M. & Lopez, D. (2019, April). The effects of dietary intake and body mass index on cognitive functioning among emerging adults. Poster presentation: New England Science Symposium at Harvard Medical School, Boston, MA.
- [10] Lane, J. M., Zhang, X, & Sörensen, S. (2018, Nov). The relationship between grade-level and breakfast skipping among adolescents: the mediating effects of dietary autonomy. Poster presentation: American Public Health Association, 2018 Annual Meeting and Expo, San Diego, CA.
- [11] Russell, H.A., Carroll, J., Barnett, S., Lane, J., Moll, L., Murphy, M., Sörensen, S., Tuttle, M., Carroll, J., & Zhang, X (2018, Nov). Using a group medical visit model to improve motivation for healthy behavior change. Poster Presentation: 46th North American Primary Care Research Group Annual Meeting, Chicago, IL.
- [12] Lane, J. M., Lipsky, L., Nansel, T., Sanjeevi, N., Haynie, D., & Simons-Morton, B. (2018, Aug). The association of motivation and perceived social norms with eating behaviors in emerging adults. Poster Presentation: NIH Summer Research Poster Day 2018, Bethesda, MD.
- [13] Kondolf, K., **Lane, J. M**., & Sörensen, S. (2018, April). Community-based intergenerational dialogue to reduce racial and social isolation among inner-city African American youth and suburban Caucasian seniors. Poster presentation: University of Rochester's Ninth Annual Diversity Conference, Rochester, NY.
- [14] Russell, H.A., Moll, L., Murphy, M., Cook, S., Sörensen, S., Carroll, J., Lane, J., & Zhang, X. (2017, Dec).

 A group medical visit to promote physical activity with underserved adults. Poster presentation: 10th

 Annual Conference on the Science of Dissemination and Implementation, Arlington, VA.
- [15] Paidipati, C.P., Brawner, B., Eiraldi, R., Ulrich, C., Lane, J., & Deatrick, J. (2017, July). Understanding the role of family management in ethnically diverse children with ADHD. Poster presentation: Sigma Theta Tau International Honor Society of Nursing, 28th International Nursing Research Congress, Dublin, Ireland.
- [16] Lane, J.M. & Rodriguez, D. (2017, May). Examining interpersonal relationship factors that influence dietary and physical activity practices in African American adolescents. Poster presentation: Public Health Poster Session of the College of Physicians of Philadelphia, Section on Public Health and Preventive Medicine, Philadelphia, PA.

- [17] Lane, J., & Freeman, J. (2016, Dec). The effect of interpersonal relationships on eating patterns and physical activity among Asian-American and European-American adolescents. Poster presentation: 18th International Conference on Public Health and Occupational Medicine, Miami, FL.
- [18] Lane, J. (2016, Oct). Transtheoretical model stages of change applied to improve daily dietary intake and physical activity behaviors among obese African American adolescents living in Baltimore, MD. Poster presentation: Maryland Public Health Association Annual Conference, Behavior, Lifestyle, and Social Determinants of Health, Baltimore, MD.
- [19] Lane, J. (2016, April). To explore positive peer relationships that influence STI risk among Philadelphia public high school students: a relationship-ecological model applied to improve Philadelphia adolescents' gonorrhea crisis. Poster presentation: Pennsylvania Public Health Association Annual Community and Public Health Conference, Lancaster, PA.
- [20] Lane, J., Choi, C., & Abanquah, D. (2015, May). The difference between clinical and non-clinical college students: does academic discipline influence health behavior? Poster presentation: Public Health Poster Session of the College of Physicians of Philadelphia, Section on Public Health and Preventive Medicine, Philadelphia, PA.

Professional Memberships

American Public Health Association

Black in Neuro

Cognitive Science Society

International Society for Environmental Epidemiology

National Black Postdoctoral Association

New York Academy of Sciences

Society for Pediatric and Perinatal Epidemiologic Research

Service Activities

University Service

Icahn School of Medicine at Mount Sinai

2023 - Present Member, EMPH Postdoc Leadership Committee

2022 - Present Founder and Chair, EMPH Postdoc Writing Club

La Salle University

2016 – 2017 President, Public Health Student Organization

Professional Service

2017 - 2018 Membership Ambassador, American Public Health Association

Ad Hoc Review Service

• The Gerontologist, The International Journal of Health, Wellness, and Society, Environmental Health Insights

Technical Skills

Statistical Packages

Proficient: RStudio, SPSS, AMOS

Intermediate: MPlus