

Beck Graefe
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EDUCATION

Doctor of Philosophy Research, Measurement, and Evaluation Dissertation: Finite Mixture Modeling for Moderator Analysis in Meta-Analysis	University of Miami August 2025
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Master of Science in Education Education and Social Change	University of Miami December 2015
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Bachelor of Science Psychology	Penn State May 2012
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Bachelor of Arts Anthropology	Penn State May 2012
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PROFESSIONAL EXPERIENCE

Assistant Professor	Nova Southeastern University 2025-Present
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Independently taught the following graduate-level courses in statistics, theories of measurement, and research methods:

- PSY 2107: Theories of Measurement 2025

Research, analysis, and collaboration on funded research projects:

- Analyze project data using advanced methods and longitudinal methods (e.g. latent growth curve analysis, structural equation modeling, latent class analysis, etc.)
- Write and prepare manuscripts for publication

Development of innovative learning materials

- Create faculty training materials for the use of AI resources in class
- Collaborate with faculty to develop ethical and effective policy on generative AI tool use for students and faculty.
- Collaborate with faculty to develop online learning modules for core course concepts.

Lecturer and Research Assistant	University of Miami 2021-Present
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Independently taught the following undergraduate and graduate courses in statistics and research methods in on-campus and online modes (typical course load: 6-9 credits/semester):

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|---|--------------|
| • EPS 351: Introduction to Statistics and Research Design | 2021-Present |
| • EPS 624: Essentials of Research in Social and Behavioral Sciences | 2023 |
| • EPS 700: Quantitative Methods I | 2024-Present |
| • EPS 702: Quantitative Methods II | 2024 |

Research, analysis, and collaboration on funded projects such as:

- Promoting Health and Reducing Risk among Hispanic Sexual Minority Youth and Their Families (NIMHD) Award: #5R01MD017588
- Familias Unidas Mental Health (NIMH) Award: #5F01MH124718
- Familias Unidas Primary Care (NIDA) Award: #5R01DA040756

Duties:

- Analyze project data using advanced methods and longitudinal methods (e.g. latent growth curve analysis, structural equation modeling, latent class analysis, etc.)
- Manage and backup program data regularly
- Prepare and clean datasets for analysis
- Write and prepare manuscripts for publication
- Evaluate institutional climate through quantitative and qualitative analysis of survey data

Additionally served as a methodologist/statistician on research studies with faculty in education, nursing, public health, and health sciences resulting in 20 publications.

Program Coordinator

University of Miami
2017-2020

Job duties in externally funded research projects:

- Bridge to the Baccalaureate Program, *National Institute of General Medical Sciences* (NIGMS) Award: #R25GM050083
- Reclaiming the American Dream Scholarship Program, *National Science Foundation* (NSF) Award: #1259399
- Science Made Sensible Program, *Wells Fargo*

Duties:

- Manage and monitor educational program participants and program budgets
- Evaluate program participants' academic progress
- Conduct annual program evaluations and prepare annual reports
- Prepare grant applications for continuation of programmatic funding
- Develop and lead professional development workshops for Miami-Dade public school teachers
- Advise program students in academic activities
- Recruit students to participate in program activities
- Communicate and collaborate with program stakeholders to promote student engagement and success

High School Biology Teacher

Miami Dade Public Schools
2015-2017

Duties:

- Prepare and teach Biology 1, Advanced Placement/IGCSE Biology, and IGCSE Environmental Management
- Adapt existing and design new presentation materials
- Integrate classroom technologies into lesson plans to engage students
- Design, prepare, and deliver labs and simulations to promote deeper knowledge of biology principles while maintaining safety
- Inventory, order, track, and organize specimens, supplies, and equipment in coordination with administration and other members of the Biology department

Education Guide

Fairchild Botanical Gardens

2013-2015

Duties:

- Lead science workshops for Miami-Dade school students on topics such as biomimicry, biodiversity, photosynthesis, and biome adaptation
- Collaborate with teachers and volunteers to effectively execute field trip events
- Set up and take down scientific demonstrations and activities

Reading Education Clinician

London Achievement
2013-2015

Duties:

- Work independently with students of all ages and reading abilities, including children with disabilities and English language learners
- Lead spelling and technical reading activities
- Guide students through comprehension and visualization activities
- Document student performance, progress, and type of error

RESEARCH EXPERIENCE

Investigated strategies to reduce bias in statistical methods, including meta-analysis and models proposed for the analysis of intersectional data.

Principal Investigator: Soyeon Ahn

University of Miami, School of Education and Human Development

January 2021 – Current

Managed and analyzed data for longitudinal public health intervention for Hispanic families and the prevention of negative health outcomes, including adolescent drug use and other risk behaviors.

Principal Investigator: Guillermo Prado

University of Miami, School of Nursing and Health Studies

February 2022 – Current

Assisted with the preparation of manuscripts on topics including consent literacy, sexual agency, HPV prevention, and sexual health education and pedagogy.

Principal Investigator: Andrew Porter

University of Miami, School of Nursing and Health Studies

September 2019 – Current

Assisted with data collection and preparation of manuscripts on topics for systematic reviews including electronic cigarette health effects, water pipe smoking health warnings, and electronic cigarette graphic health warnings.

Principal Investigator: Taghrid Asfar

University of Miami, Miller School of Medicine Department of Public Health Sciences

March 2021 – May 2021

Oversee “*Bridge to the Baccalaureate Program*” activities, advise program students in academic and research activities, and prepare annual program evaluations.

Principal Investigators: Michael Gaines, Jane Indorf, Pablo Sacasa

University of Miami, Office of Undergraduate Research and Community Outreach

November 2017 – June 2020

Oversee “*Reclaiming the American Dream: A Scholarship Program for Community College Transfer Students*” activities, advise program students in academic and research activities, and prepare annual program evaluations.

Investigators: Michael Gaines, Jane Indorf

University of Miami, Office of Undergraduate Research and Community Outreach

November 2017 – June 2018

Participated in research activities related to investigating sexual selection in humans and non-human primates.

Principal Investigator: David Puts

The Pennsylvania State University, Department of Anthropology

February 2010 – June 2013

Participated in research activities related to investigating the impact of a neighborhood park renovation on visitor experiences, behaviors, and evaluations.

Principal Investigator: Andrew Mowen

The Pennsylvania State University, Department of Recreation, Park, and Tourism

August 2008 – May 2012 (periodic engagement during a four-year period)

PUBLICATIONS

Porter, A., **Graefe, B.**, Cooper, S., King, A., Presti, C., Williams, I., & Mikhaylov, A. (in press). Beyond political lines: How reproductive health attitudes drive caregivers’ HPV vaccine decisions. *Sexuality and Culture*.

Porter, A., Gomez, N., **Graefe, B.**, Falcon, A., & Foronda, C. (in press). Teaching truth in turbulent times: Navigating politicized policies on sex and gender in nursing education. *Nurse Educator*.

Ahn, S., **Graefe, B.**, Schooley, R., & Chun, C. (in press). *Current practices of meta-analytic and systematic reviews in education toward unbiased, inclusive, and representative research evidence*. In S. Ahn & A. Mann (Eds.), *Bias and Beyond: Rethinking Data Practices and Inspiring Collective Dialogue*. Information Age Publishing.

Lovan, P., Mitrani, E., Torres, A., Estrada, Y., Messiah, S.E., **Graefe, B.**, Penedo, F., Prado, G., & Szapocznik, J. (in press). Does Intake Meet the Recommendations? A Focus on Neighborhood-Level Disadvantage in Hispanic Families with Unhealthy Weight. *Journal of Articles in Support of the Null Hypothesis*.

Porter, A., **Graefe, B.**, Cooper, S., Shewmaker, M., Piller, M., Kebede, D., Prenaveau, L., & Falcon, A. (in press). Sip, smoke, and surrender: Substance use and sexual agency. *Sexuality & Culture*.

Graefe, B., Porter, A., Indorf, J., Ahn, S., Chuan, C., & Gaines, M. (2025). From Chalkboards to ChatGPT: Navigating the future of teaching with generative AI. *Journal of Interactive Learning Research*, 36(2).

Lovan, P., **Graefe, B.**, Porter, A., Szapocznik, J., Penedo, F. J., Messiah, S. E., & Prado, G. (2025). Neighborhood Matters: An Exploration of Neighborhood-Level Disadvantage and

Cancer Protective Behaviors in Hispanic Youth with Unhealthy Weight. *Health and Place*, 93.

- Lovan, P., Boga, D., Lozano, A., **Graefe, B.**, Hodge, S., Estrada, Y., Lee, T., & Prado, G. (2025). Bullying and anxious/depressive symptoms in Latinx adolescents living with obesity: The mediating role of self-esteem. *Current Psychology*, 44, 1574-1586.
- Falcon, A., Porter, A., Matsuda, Y., Foronda, C.L., Lovan, P., **Graefe, B.** (2025). Unlocking public health competencies: The dose-response effect of problem-based learning on undergraduate student outcomes. *Frontiers in Public Health*, 13, Article 1560098.
- Tapia, M. I., **Graefe, B.**, Fallon Palermo, S., & Prado, G. (2025). La prevención de conductas sexuales de riesgo en el programa *Familias Unidas*: La relevancia de la implicación parental y el desarrollo de la educación afectivo-sexual. En C. Orte, J. Amer, & B. Pascual (Eds.), *Familias y educación afectivo-sexual. Claves para la formación en prevención* (p. 85-97). Octaedro.
- Graefe, B.**, Lovan, P., Lozano, A., Estrada, Y., Prado, G. (2024). The role of family functioning in the prevention of depressive symptoms and drug use among Hispanic youth. *American Journal of Health Education*.
- Porter, A., Falcon, A., **Graefe, B.**, Metheny, N., Cooper, S., & Astorini, A. (2024). Swipe left on sexual harassment: Understanding and addressing technology-facilitated sexual violence on dating apps. *Journal of Interpersonal Violence*, 08862605241265672.
- Lovan, P., Saez-Clarke, E., **Graefe, B.**, Messiah, S. E., & Prado, G. (2024). Parent childhood experiences, parenting strategies, and youth health-related outcomes in Hispanic families with unhealthy weight: An intergenerational study. *Eating Behaviors*, 53, 101870.
- Lozano, A., Lee, T. K., Weinstein, E. R., Estrada, Y., **Graefe, B.**, Tapia, M. I., & Prado, G. (2023). Trajectories of drug use and depressive symptoms among Latinx youth and sexual minority youth. *International journal of environmental research and public health*, 20(10), 5883.
- Lozano, A., Fernandez, A., Rhodes, C. A., Estrada, Y., **Graefe, B.**, Tapia, M. I., & Prado, G. (2023). Does Binge-Watching eHealth Intervention Content Impact Outcomes?. *Journal of Adolescent Health*, 73(4), 664-671.
- Ahn, S., & **Graefe, B.** (2023). Hands-on Application of Exploratory Factor Analysis in Educational Research. In *A Practical Guide to Teaching Research Methods in Education* (pp. 120-130). Routledge.
- Porter, A., Cooper, S., Henry, M., Gallo, G., & **Graefe, B.** (2019). The nature of peer sexual health communication among college students enrolled in a human sexuality course. *American Journal of Sexuality Education*, DOI: 10.1080/15546128.2018.1529644
- Astorini, A., Porter, A., Harlow, L., **Graefe, B.**, & Stein, L. (under review). Using mixed methods to evaluate gender experience classification in adults by the Assigned Sex Gender Identity Lived (ASGIL) gender instrument.

Estrada, Y., Lozano, A., **Graefe, B.**, Lee, T. K., Lovan, P., Tapia, M. I., Velazquez, M. R., Gwynn, L., & Prado, G. (under review). Findings of a primary care eHealth family intervention for Hispanic youth risk behaviors: An RCT. *Pediatrics*.

Porter, A., Aguilar, C., Preneveau, L., **Graefe, B.**, & Cooper, S. (under review). Beyond barriers: Revolutionizing LGBTQ+ inclusive sexual health education in the U.S.. *Politics, Groups, and Identities*.

Porter, A., Falcon, A., Matsuda, Y., Foronda, C., & **Graefe, B.** (under review). Harnessing problem-based learning to strengthen interprofessional education: Addressing health disparities and sensitive topics. *Nursing Education Perspectives*.

Porter, A., Cooper, S., Keegan, J., **Graefe, B.**, Ciervo, C., & Khalid, R. (under review). Tuning in to sexual health: A quantitative analysis of The Sex Wrap Intervention's impact on sexual agency and attitudes in young adults. *Sexuality Research and Social Policy*.

Porter, A., Cooper, S., King, A., Presti, C., Williams, I. V., **Graefe, B.**, & Mikhaylov, A. (under review). HPV vaccine attitudes of parents and caregivers of 9–17-year-olds in the Northeast and Southeast of the United States. *Vaccine*.

Xiong, W., Tang, F., **Graefe, B.**, Ryan, D., & Perry, A. (under review). Meaningful predictors of vascular health in postmenopausal Asian women. *European Journal of Preventive Cardiology*.

Xiong, W., **Graefe, B.**, Tang, F., Bichili, A., Ryan, D., & Perry, A. (under review). Body composition and physical activity predictors of vascular health in Asian premenopausal women. *Journal of the American College of Cardiology: Asia*.

Graefe, B., Lovan, P., Porter, A., Estrada, Y., Lozano, A., & Prado, G. (under review). The mediating role of family functioning on sexual orientation and depressive symptoms among Hispanic youth. *International Journal of LGBTQ+ Youth Studies*.

PRESENTATIONS

Graefe, B., Porter, A., & Ahn, S. (November, 2024). *Utilizing mixture modeling to address intersectional effects in meta-analysis of sexual health outcomes: An alternative to traditional moderator analysis*. The Society for the Scientific Study of Sexuality Annual Meeting, San Diego, CA.

Graefe, B., Kebede, D., Shewmaker, M., Prenaveau, L., Pillar, M., Falcon, A., Cooper, S., & Porter, A. (November, 2024). *The effect of sexual agency on cannabis and alcohol use behaviors: Exploring risk with zero-inflated Poisson regression modeling*. The Society for the Scientific Study of Sexuality Annual Meeting, San Diego, CA.

Porter, A., Cooper, S., **Graefe, B.**, King, A., Presti, C., Mikhaylov, A. (November, 2024). *The influence of political affiliation and attitudes toward birth control on HPV vaccine hesitancy*. The Society for the Scientific Study of Sexuality Annual Meeting, San Diego, CA.

Porter, A., Astorini, A., & **Graefe, B.** (November, 2024). *Beyond binary: A novel approach to understanding gender diversity*. The Society for the Scientific Study of Sexuality Annual Meeting, San Diego, CA.

Graefe, B., Lovan, P., Estrada, Y., & Prado, G. (May 2024). *Are adolescent depressive symptoms impacted by family functioning and adolescent sexual orientation? A moderated structural equation model*. Society for Prevention Research Annual Meeting, Washington D.C..

Graefe, B., Lovan, P., & Prado, G., (November, 2023). *The mediating role of family functioning on the relationship between sexual orientation and depressive symptoms among Hispanic youth*. The Society for the Scientific Study of Sexuality Annual Meeting, New Orleans, LA.

Graefe, B., Lovan, P., Lozano, A., & Prado, G. (June, 2023). *The impact of adolescent perceptions of family functioning in the prevention of depressive symptomology and drug use*. Society for Prevention Research Annual Meeting, Washington D.C..

Graefe, B. (March, 2023). *Gamifying the Classroom*, Science Made Sensible, University of Miami, Coral Gables, Florida.

Graefe, B., Porter, A., Cooper, S., Falcon, A., Metheny, N., Astorini, A. (November, 2022). *Swipe Left on Sexual Harassment: Understanding and Addressing Technology-Facilitated Sexual Violence on Dating Apps*, Society for the Scientific Study of Sexuality Annual Conference, Vancouver, British Columbia.

Graefe, B. (February, 2022). *Using R and RStudio for Data Exploration*, Science Made Sensible, University of Miami, Coral Gables, Florida.

Graefe, B. (October, 2021). *Research in the Classroom: Incorporating Authentic Approaches into Science Pedagogy*, Science Made Sensible, University of Miami, Coral Gables, Florida.

Graefe, B., & Gaines, M. (June, 2021). *The Area of Effective Research Presentations*, University of Miami, Coral Gables, Florida.

Graefe, B., & Gaines, M. (February, 2021). *Engaging Students in Computational Activities in Science*.

Graefe, B., Astorini, A., & Indorf, J. (August, 2018). *Undergraduate Research and Community Outreach at the University of Miami*, South Florida Family Day, Miami, Florida.

Graefe, B., & Gaines, M. (July 17, 2018). *Science Made Sensible*, Florida Atlantic University, Boca Raton, Florida.

TEACHING EXPERIENCE

Quantitative Methods I

University of Miami, 2023-2025

Quantitative Methods II	University of Miami, 2024
Essentials of Research in Social and Behavioral Sciences	University of Miami, 2023
Introduction to Statistics and Research Design	University of Miami, 2021-2025
Science Made Sensible, Teacher Workshops	University of Miami, 2017-2020
Guest Discussion Mediator, Biology Honors Seminar	University of Miami, 2018
Science Made Sensible, South Africa Preparatory Course	University of Miami, 2018
Biology 1	South Miami High School, 2015-2017
AP Biology	South Miami High School, 2015-2016
AICE Biology	South Miami High School, 2016-2017
Professional Development Workshop Leader	South Miami High School, 2016

UNIVERSITY OF MIAMI COMMITTEES

University of Miami School of Education and Human Development, DAISI Curriculum Committee, 2025

Abstract Editing Committee for Bridge Program Students, 2018

National Institute of General Medical Sciences (NIGMS) “*Bridge to the Baccalaureate Program*”, Selection Committee, 2018

National Institute of General Medical Sciences (NIGMS) “*Bridge to the Baccalaureate Program*”, Advisory Committee, 2017 - 2018

National Science Foundation “*Reclaiming the American Dream*” Scholarship, Selection Committee, 2018

Wells Fargo “*Science Made Sensible*”, Resident Scientist Selection Committee, 2018