FRANCHESCA MARIA LYRA

Citizen status: U.S. citizen
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EDUCATION

The University of Texas at Austin — Austin, TX
Ph.D. Candidate (*Expected Graduation: Spring 2027*) — Aug. 2021 - Present
Science, Technology, Engineering, and Mathematics Education

Bachelor of Science and Arts, Biology — May 2021
Certificate: Secondary Science Teaching (concentration in biology, chemistry, physics, & geology)

HONORS AND AWARDS

Outstanding Graduate Research Fellowship 2026

Addison E. Lee Research Support Fellowship 2025

Texas New Scholars Continuing Fellowship 2025

Alexander Caswell Ellis Fellowship in Education 2024

McNair Doctoral Fellow 2021

University of Georgia Undergraduate Biology Education Research Fellow 2020
funded by the National Science Foundation

Ronald E. McNair Scholar 2020

Austin Independent School District Future-Teacher Scholar 2019

Jane Sanford Beasley Scholar 2018

Texas Interdisciplinary Plan Scholar 2017

University Leadership Network Scholar 2017

PUBLICATIONS

Riegle-Crumb, C., Nguyen, U., **Lyra, F.**, Russo-Tait, T. (2025). Gender Essentialist Beliefs Among Women Engineers in College: Variation by Race and Social Class and Implications for Inequality. *Sex Roles* 91, 85. https://doi.org/10.1007/s11199-025-01632-z

Giani, M., **Lyra, F.**, Tyner, A. (2025). Calculus or Statistics: Does it Matter? *Washington D.C.: Thomas B. Fordham Institute.* https://fordhaminstitute.org/national/research/calculus-or-statistics-does-it-matter

Rutten, L. D., Zengilowski, A., **Lyra, F.**, Woznicki, N., & Muenks, K. (2024). "Only some can succeed here": A mixed methods study of how faculty unproductive mindsets relate to gender, racial, and first-gen representation in higher education. *Contemporary Educational Psychology*, *79*, 102319.

Limeri, L. B., Carter, N. T., **Lyra, F.**, Martin, J., Mastronardo, H., Patel, J., & Dolan, E. L. (2023). Undergraduate Lay Theories of Abilities: Mindset, universality, and brilliance beliefs uniquely predict undergraduate educational outcomes. *CBE—Life Sciences Education*, 22(4), ar40.

Lyra, F. (2021). What Does My Professor Think of Me? Demographic Diversity in Relation to Professor Mindset Beliefs. *THE RONALD E. MCNAIR SCHOLARS RESEARCH JOURNAL*, 133.

- PDF available upon request. The journal was removed following the passing of Senate Bill 17 (SB 17) in January 2024.

RESEARCH EXPERIENCE

Graduate Research Assistant, Population Research Center / Ascendium Education Group — Austin, TX
Principal Investigators: Dr. Matthew Giani and Dr. Angela Boatman — May 2025 – Present

- Contributes to the design, implementation, and management of a randomized control trial which examines corequisite course experiences for instructors and students in Louisiana colleges
- Manages data cleaning and coding procedures

Data Analyst, Population Research Center Austin, TX
Principal Investigator: Dr. Matthew Giani Dec. 2023 – May 2025

- Analyzed 20 years of longitudinal data examining the impact of high school mathematics pathways in shaping students' postsecondary education and economic outcomes using advanced statistical methods

Researcher, Rockman et al Cooperative (In collaboration with Twin Cities PBS)
Funded by the U.S. Department of Education Austin, TX

- Conducted interviews and activities with children aged 5-8 Oct. 2024 – Nov. 2024
- This project explored how a digital media-based afterschool program impacts children's career exposure and application of skills and strategies used in everyday life and future workforce success

Graduate Research Assistant, Texas Education Research-Practice-Policy Partnership Network Austin, TX
Principal Investigator: Dr. Sarah Woulfin Aug. 2023 – Dec. 2023

- Examined the dynamics of regional partnerships between colleges of education, education nonprofits, and education systems in their pursuit of research and equity initiatives

Graduate Research Assistant, Department of STEM Education Austin, TX
Principal Investigator: Dr. Catherine Riegle-Crumb Aug. 2022 – Aug. 2023

- Analyzed data and conducted quantitative analyses on data from the Society of Women Engineers (SWE)
- Assisted with literature reviews

Graduate Research Assistant, Educational Psychology Austin, TX
Principal Investigator**:** Dr. Katherine Muenks Oct. 2021 – Oct 2024

- Conducted semi-structured interviews
- Developed interview questions
- Analyzed and organized qualitative data results

Ronald E. McNair Scholars / Learning and Motivational Beliefs Lab Austin, TX
Undergraduate Researcher Aug. 2020 – May 2021
Advisers: Dr. Katherine Muenks and Dr. Tia Madkins

- Investigating STEM professor culture at R1 universities and how it affects first generation and minoritized students
- Article published in University of Texas McNair Journal

University of Georgia Undergraduate Biology Education Research Fellowship Athens, GA
Undergraduate Fellow May 2020 – Aug. 2020
Advisers: Dr. Erin Dolan and Dr. Lisa Limeri

- Assisted in designing an instrument to measure undergraduate mindsets towards STEM success and experience
- Attended seminars and workshops that covered ethics, social justice, pedagogy, and STEM equity topics
- Performed interviews on participants taking survey

PRESENTATIONS

American Education Research Association (AERA) April 2024
Non-Presenting Author

- Riegle-Crumb, C., **Lyra, F. M.**, Nguyen, U., & Agarwal, R. (2024, April). *A "Chilly Climate" With Engineering Faculty: Implications for Women's Engineering Identity and Thoughts About Leaving*

Association for Education Finance & Policy (AEFP) March 2024
Non-Presenting Author

- Giani, M., Tyner, A., **Lyra, F.** (2024, March). *Is the Calculus Pathway Overrated? Evaluating the Postsecondary and Career Impact of High School Calculus vs. Statistics Courses*

Invited Speaker for EDC 380R (Educational Research and Design) Oct. 2023
Presenter

- Presented an introduction to quantitative research/statistical methods and provided examples from own research

American Education Research Association (AERA) April 2023
Non-Presenting Author

- Rutten, L., **Lyra, F. M.**, Zengilowski, A., Woznicki, N., & Muenks, K. (2023, April). *How do faculty beliefs relate to gender, racial, and first-gen representation across academic disciplines?*

- Limeri, L. B., Carter, N., **Lyra, F. M.**, Martin, J., Mastronardo, H., Patel, J., & Dolan, E. L. (2023, April). *Measuring Mindset More Accurately With the Undergraduate Lay Theories of Abilities (ULTrA) Survey.*

- Riegle-Crumb, C., Nguyen, U., Russo-Tait, T., & **Lyra, F. M.** *Examining Gender Essentialist Beliefs and Their Association With Beliefs About Engineering Among College Engineering Majors.*

Discipline-Based Education Research Conference (X-DBER) – University of Nebraska-Lincoln Virtual
Co- Presenter March 2021

- Presented and facilitated discussions on results from STEM undergraduate mindset belief research
  Lyra, F. M., Limeri, L. B., Mastronardo, H., Patel, J., Carter, N. T., & Dolan, E. L. (2020) *The Undergraduate Lay Theories of Abilities (ULTrA) Survey.* Undergraduate Biology Education Research Symposium, virtual conference.

McNair Senior Seminar Series Virtual
Presenter October 2020

Presented on the impacts of imposter syndrome in STEM fields

Lyra, F. M. (2020) *Imposter Syndrome in STEM at the University.* McNair Senior Seminar Series, virtual seminar.

Undergraduate Biology Education Research Symposium Virtual
Presenter July 2020

- Presented and facilitated discussions on results from STEM undergraduate mindset belief research
  Lyra, F. M., Limeri, L. B., Mastronardo, H., Patel, J., Carter, N. T., & Dolan, E. L. (2020) *The Undergraduate Lay Theories of Abilities (ULTrA) Survey*. Undergraduate Biology Education Research Symposium, virtual conference.

Society for the Advancement of Biology Education Research (SABER) Virtual
Co-Presenter July 2020

- Presented and facilitated discussions on results from STEM undergraduate mindset belief research
  Lyra, F. M., Limeri, L. B., Mastronardo, H., Patel, J., Carter, N. T., & Dolan, E. L. (2020) *The Undergraduate Lay Theories of Abilities (ULTrA) Survey.* Society for the Advancement of Biology Education Research, virtual conference.

TEACHING EXPERIENCE

Introduction to Quantitative Methods Austin, TX
Teaching Assistant Jan. 2025 – May 2025

- Assisted with graduate-level instruction in introductory quantitative methods, covering statistical concepts such as regression, hypothesis testing, and data interpretation

McCallum High School Austin, TX
Anatomy and Physiology Student-Teacher Jan. 2021 – May. 2021

- Designed and delivered rigorous, standards-aligned lessons in AP Anatomy & Physiology, incorporating lab-based instruction and formative assessments to support student mastery of complex biological systems
- Adapted lessons to accommodate the online format as a result of the COVID-19 pandemic

Boys and Girls Club Austin Austin, TX
Engineering and Science Teacher May 2019 – Sept. 2019

- Facilitated interactive classroom discussions covering topics of computer science, engineering, and natural sciences
- Differentiated instruction for students with identified needs, including ADHD, autism, and language-based learning disabilities
- Planned lessons and activities for over 100 kindergarten-fifth-grade students in the Austin area

WORKSHOPS

Research Training Institute on Cluster-Randomized Trials at Northwestern University Institute for Policy Research (July 2026)
Inter-university Consortium for Political and Social Research Summer Program in Quantitative Methods of Social Research at University of Michigan - Certificate in Multilevel Modeling (August 2023)
Quantitative Critical Methods in Research Education at The University of Texas at Austin (August 2023)

SERVICE AND OUTREACH

EdQuant Lab Collaborative (Fall 2025 – Present)
McNair Graduate Mentor (Jan. 2023 – Spring 2025)
McNair Graduate Student Association (Aug. 2021 – Present)
Association for Women in Science (Aug. 2020 – May 2021)
Math and Science Teachers of Tomorrow (Aug. 2018 – May 2021)

PERSONAL SKILLS

- Portuguese (Fluent) and Spanish (Intermediate)
- Advanced in STATA/SPSS, proficient in R Studio/Qualtrics/Excel, beginner in Python