

Tyrslai M. Williams-Carter is the Assistant Dean of Mentoring, Research, & Education in the Strategic Initiatives of the Pinkie Gordon Lane Graduate School and an Assistant Professor of Research in the School of Education at Louisiana State University. Formerly, she served as the Director of OSI Programs, where she led a team dedicated to transforming the landscape of STEM education for students at the undergraduate and graduate levels.

During her doctoral studies, Dr. Williams-Carter investigated the *Design, Synthesis, and Evaluation of BODIPY-Peptidic Conjugates for Biological Applications*. Over the past 15 years, she has conducted outreach and mentored K-12, undergraduate, and graduate students. Because of her experience with outreach efforts and passion for supporting students over the years, Dr. Williams-Carter decided to re-direct her research efforts to areas that create pathways for all students to achieve their academic goals in the face of barriers. Dedicated to contributing to the professional advancement of students from high school to graduate levels in several capacities that strengthen the pathway to terminal STEM degrees, her current research investigates the strategies and support structures necessary to support students through critical junctures on their academic journey while cultivating essential skills vital for success in the workforce.

Dr. Williams-Carter focuses on transforming the lens through which underserved students see higher education by broadening participation and increasing matriculation of undergraduate and graduate students in STEM. She has designed and implemented several STEM projects, particularly for groups historically underrepresented in STEM. She continues to create an impact by bringing numerous students from LSU and other institutions towards research and education. Because of her background in Organic Chemistry and STEM Education, Dr. Williams-Carter has published several scientific and educational publications. Her most recent work in May 2022 with *Frontiers in Education* is titled *Supporting Historically Underrepresented Groups in STEM Higher Education: The Promise of Structured Mentoring Networks*. She has received several recognitions and honors for work in broadening participation, diversity, and STEM education.

She is an investigator of 5 ongoing education support projects totaling over six (6) million dollars that support the development and advancement of brown students at the undergraduate level (*LS-LAMP*), graduate level (*Bridge to Doctorate Program*), and up to the postdoctoral and early career faculty levels (*LS-PAC Model Program*). Through these projects, Dr. Williams-Carter has created an infrastructure that enhances the STEM workforce.

She is affiliated with many professional STEM organizations and currently serves as the Southwest Regional Director for the National Organization of Black Chemists and Chemical Engineers (NOBCChE). Dr. Williams-Carter serves as an active member of the university community, engaging in critical conversations with units, including the Black Faculty & Staff Caucus and Staff Senate. Additionally, she currently serves as the local LSU NOBCChE Advisor.

Her service extends far beyond the STEM community and into the city where she was born and raised. In addition to her extra volunteer responsibilities of educating and motivating students in STEM, Dr. Williams-Carter is actively involved with organizations advocating for and creating change in the greater Baton Rouge area. Since 2019, she has actively served the community through volunteerism as a member of the Junior League of Baton Rouge and the Education Committee Chair of the National Coalition of 100 Black Women (NCBW), Inc., Metropolitan Baton Rouge Chapter advocating on behalf of girls and women.