

Latinxs and Hispanics in Mathematical Sciences



Photo courtesy of Dr. Natalie Gasca

Dr. Natalie Gasca

Senior Environmental Scientist
California Department of Pesticide Regulation

Dr. Natalie Gasca is a multi-ethnic Latina and daughter of a Mexican immigrant, and she was raised in Fallbrook, California. She earned a Ph.D. in Biostatistics from the University of Washington in 2021 and a B.S. in Mathematics from Cal Poly Pomona in 2014. Natalie works for the California Department of Pesticide Regulation in the Environmental Justice and Equity Office, where she promotes language access and supports government-community engagement.

Natalie's academic path was influenced by her enthusiasm for data analysis, public health, grassroots volunteering, and mentorship. Her undergraduate years were profound in expanding her worldview, including through extensive volunteering, earning her the 2012 Student Award for Civic Leadership. With her professors' encouragement, Natalie attended several science conferences across the country, which provided graduate school guidance, a sense of community with other underrepresented scholars, and access to research internships. These skills enabled her to earn an NSF Graduate Research Fellowship, which allowed Natalie to co-design her Ph.D. dissertation focus with her advisor: how to interpret and improve statistical methods to construct heart-healthy dietary patterns. One of her most impactful experiences during graduate school was the Bonderman fellowship.

Throughout her studies and early career, Natalie's professional efforts have been centered around service and increasing access to science and mathematics. She has a track record of leadership, civic engagement, interdisciplinary and intergenerational collaboration, and mentorship of underrepresented students.

Natalie values using statistics and science communication for service, especially as a way to empower people to use research to improve their health and well-being. As an early-career professional, Natalie continues to make math and statistics communities more accessible and inclusive. She leads the Justice, Equity, Diversity, and Inclusion (JEDI) Committee for the Western North American Region of the International Biometric Society (WNAR), and she has led the establishment of an annual satellite workshop held in conjunction with WNAR's conference since 2024 to introduce students of all ages to quantitative fields and careers. She serves as an Associate Editor of a journal published by the American Statistical Association (ASA), peer-reviewing statistical manuscripts to ensure equity, inclusion, and diversity content is described appropriately. Natalie recently joined ASA's JEDI Outreach Group as the Communications Chair, supporting statisticians and data scientists across the country.

"Hispanic Heritage Month is a time to reflect on the richness, creativity, and depth of our Latine and Hispanic cultures and how much we have contributed to the US and beyond. In my family, that includes lively dancing, joking, and storytelling; staying up to play dominoes on Christmas Eve; enjoying flavorful foods and sauces; centering connections and warmth; and adapting and thriving in so many settings. In the many spaces I'm a part of, I am proud to show up authentically, support the next generation, and honor the many who came before me."

Lathisms was founded in 2016 in order to showcase the contributions of Latinx and Hispanic mathematicians during Hispanic Heritage Month, which is celebrated in the United States from September 15 and October 15 every year. During this time, we feature/reveal a prominent Latinx/Hispanic mathematician daily. See all the featured mathematical scientists at LATHISMS.ORG.

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