Latinxs and Hispanics in Mathematical Sciences

Valeria Espinosa
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"Since moving to the US, Hispanic Heritage Month has become an opportunity to deepen my understanding of the Latinx community, share my roots with people around me, and get exposed to other beautiful sister cultures and traditions. Since becoming a mom, it represents a window and resource for my kids to cherish and recognize their origins, while also appreciating the diversity, potential, and power of the Hispanic community they belong to."

Dr. Valeria Espinosa was born in Mexico City to economist parents. She enjoyed mathematics from an early age. Valeria completed her undergraduate studies in Applied Mathematics at the Instituto Tecnológico Autónomo de México (ITAM) in Mexico City. While applying to grad school, she worked as a research assistant in the Computational Biology Department at INMEGEN (Mexico's Genomic Medicine Institute). In 2008, she moved to Cambridge, Massachusetts, where she completed her Ph.D. in Statistics at Harvard with advisors Donald Rubin and Tirthankar Dasgupta. Her research focused on both observational and experimental causal inference problems. While at Harvard, she was a teacher assistant for many interesting classes and thoroughly enjoyed teaching. During one of the summers of her graduate studies, she took an internship at Novartis, working on a Bayesian simulation tool for clinical trials. After completing her degree, she stayed at Harvard one more semester as a postdoc and lecturer in Causal Inference. In 2014, she moved to the Bay Area to work at Google. She's been there since, working on problems in Search Ads and more recently in Google Health.

Dr. Espinosa graduated with a "Mención Honorífica" from ITAM and was a recipient of the Goldman Sachs Global Leaders Award. Her thesis won the "Premio de Investigación Ex-ITAM". At Harvard, she earned the Derek C. Bok Award for Excellence in Graduate Student Teaching of Undergraduates. She has published papers in *Technometrics*, *The American Statistician*, Plos and *Nature Communications.*

She uses statistics in her work every day, for example, fitting regression based models, defining metrics of interest, and finding ways of estimating them and their uncertainties. An important part of her job is converting business problems into statistical terms and being very clear about the limitations of the conclusions of her analyses and the feasibility of the assumptions made.

Dr. Espinosa recommends working on building a network, practicing for your interviews, asking questions when interviewing (you are also evaluating whether the position is a good fit for you), taking advantage of internships to explore your options, and connecting with people in these industries at conferences. While at Google, she has mentored a Hispanic middle school student as part of the Spark mentoring program, helped put together packages of school materials for students, helped paint a school, and has participated in clean-up efforts around the Bay Area.