

# Latinxs and Hispanics in Mathematical Sciences



## James A. Mendoza Álvarez

James A. Mendoza Álvarez grew up on his family's farm near Saspamco, Texas, south of San Antonio. The story of his great grandparents' walk across the border from Mexico in 1890, and their tenacity in saving for ten years to purchase this "rancho" on wages of 25 cents per day in a nearby brick factory, grounded his upbringing in the values of perseverance and hard work. Both his father, who emigrated from Spain in 1963, and his mother were school teachers who prioritized pursuit of higher education. His mother's passion for teaching highly influenced his own desire to be an educator. He excelled at mathematics and enjoyed being well regarded as a musician in his community, regularly playing the piano/organ at church and trumpet in school and college. Being the fourth of six siblings to attend college, he enrolled at Texas A & M University-Commerce on a Presidential Scholarship in 1984. In 1987, just three years after having graduated valedictorian of Floresville High School, he earned a bachelor's degree with Academic Distinction in mathematics and physics. In 1996, he completed his dissertation, "Percolation on the Randomized Sierpinski Carpet," in mathematics under Dr. William Beckner at The University of Texas. His passion for issues related to equity and access in mathematics fueled his move to research in mathematics education. Thus, immediately after completing his Ph.D., Dr. Álvarez took a post-doctoral position in mathematics education at the Charles A. Dana Center to work with Dr. Uri Treisman. Dr. Álvarez is currently a Professor of Mathematics and Distinguished Teaching Professor at The University of Texas at Arlington, and Graduate Director of the M.A. in Mathematics Program for secondary mathematics teachers. He is happily married to Dr. Minerva Cordero (also a mathematician) and they have two grown sons, Alex and Nicholas.

Dr. Álvarez's research and professional interests are in mathematics education with a focus on mathematical problem solving, mathematics-specific technology, increasing access to mathematics through improved preparation of mathematics teachers, program development, and curriculum development. Dr. Álvarez's accomplishments in teaching have been recognized at several levels. He received the 2016 UT Arlington Outstanding Honors College Faculty Award, the 2009 UT Arlington Innovations in Teaching Award, a 2010 UT System Regents' Outstanding Teaching Award, and the 2012 Texas Section MAA's Teaching Award for Distinguished College or University Teaching of Mathematics. He also was selected for membership into UT Arlington's Academy of Distinguished Teachers in 2012. His research and teaching have been supported by grants from the National Science Foundation, the US Department of Education, the Texas Education Agency, and the Texas Higher Education Coordinating Board. These grants, totaling over \$12 million, support projects which include efforts aimed at increasing teacher content knowledge in mathematics, increasing student retention in gateway courses such as calculus and precalculus, linking mathematics taught in the K-12 schools to research in mathematics, and designing materials to support standards-based mathematics teacher preparation.

*"Hispanic Heritage Month highlights the important, complex history and contributions of Hispanics in our country. In my own ancestry, I have Tejanos in which the border crossed them in 1830s, Mexicans who crossed the border in the 1850s and 1890s, and my father who left Spain in 1963. My parents always emphasized the power of knowledge and facts in combating racism. Thus, I always viewed knowing our history as an integral part of helping others understand the rich contributions Hispanics have made to this country from cowboy traditions in the southwest to a current day Supreme Court justice."*

---

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](http://LATHISMS.ORG).

*Thanks to the American Mathematical Society and the Mathematical Association of America for support of Lathisms.*