

# Latino genius in Mathematics Receives Award

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Rodrigo Banelos did not know how to read or write until he was 15 years old. Today he is an accomplished mathematician, one of few in this profession.

There are few latinos who stand out in the mathematical world and Rodrigo Banelos is one of them. He forms part of a select group of specialists in arithmetic and geometry. He is a researcher in the theory of isoperimetric inequalities and during his career, he dedicated great efforts to encourage ethnic minority students to continue their study and to pursue careers in mathematics.

For these reasons he was honored as the recipient of the Blackwell–Tapia Prize, co–sponsored by The Institute of Pure and Applied Mathematics (IPAM) at the University of California Los Angeles.

This is the second time the prize has been awarded. It was established in 2002 by the Mathematical Science Research Institute (MSRI) and Cornell University in honor of the distinguished mathematicians David Blackwell and Richard Tapia, who have been an inspiration for several generations of African-American and Latino students in the US.

The Blackwell-Tapia prize is awarded every two years and UCLA hosted the award ceremony honoring this year’s recipient as one who is considered a model in the world of mathematics.

The history of Rodrigo Banelos is remarkable in light of his extraordinary strength in numerical and geometric ideas. He entered the US at the age of fifteen, almost completely illiterate.

He was born in a ranch called La Macita, nestled in the Mexican state of Zacatecas, from where he and his parents moved to the city of Pasadena, CA some thirty five years ago.

“I arrived here without having attended school. I grew up in a small ranch with no schools in the area. My uncles and aunts were the ones who taught us what little they knew,” recalled this man wearing bifocals and sporting a jacket from the 80s.

He went to middle school in Pasadena and later graduated from Blair High School, despite the difficulties he encountered because of language. After graduating, he started working and soon met Juan Lara, then a student at UCLA and now holds a prominent position at the University of California at Riverside.

“He helped and supported my decision to attend community college in Pasadena from 1973 to 1974, and later he helped me to enter the university. It was then when I went to UC Santa Cruz to study physics, but later switching to mathematics,” he reported during an interview hours before receiving his prize.

For Banuelos, his student career was a series of fortunate accidents. “Latinos do not have many opportunities to enter into the sciences. Many of us entered these fields by accident or because we knew someone and at each obstacle we overcame, there is the danger of not being able to continue,” said this mathematician who received his doctorate at UCLA in 1984.

In the United states, there are few outstanding Latino mathematicians, even though, according to Banuelos, it has been shown that Latinos have an elevated intelligence quotient.

Currently he lives in Lafayette and is a professor in mathematics at Purdue University in Indiana. He is active in various organizations dedicated to the growth of the Mexican and Latin communities in the city.

During the presentation to the students and professors of IPAM, Banuelos gave a technical talk about the theory of sound, the study and application of Brownian motion and partial differential equations, including isoperimetric inequalities.

“We are not talking about two plus two equals four. We are talking about things far more sophisticated,” he declared.

Banuelos emphasized that mathematics is applied in every aspect of life, from the construction of buildings to the development of drugs for the treatment of cancer and other infectious diseases.

“Pure mathematics refers to ideas, theory and not to the immediate ap-

plication to the construction of buildings, a computer or an elevator. These ideas are developed and made more practical, closer to what the general population understands,” he explains.

The doctor in mathematics is certain that if someone truly wishes to pursue their goals, one can achieve them. For this reason, he sent a message, “Seek opportunities, try to avoid immediate gratification; it takes time, one should be patient and work hard.”

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Translated by Luis David Garcia and Rebecca Garcia.