

Fidel Lopez: First-Generation Mathematician

Calm conversation about the most abstract and precise theories characterizes his speech; humbleness and capability characterizes his personality. One time we were in a car wash, and as the water shifted and splashed across the window, Fidel Lopez began explaining the mathematical reason behind the movement of water. When he could no longer rely on logic for the explanation, he transitioned to optimism. Reassuringly, Fidel let me know that although there is no one equation that can classify the smooth but complicated course of water, he wishes and plans to find one in the future. In his view, there are limitless undiscovered figures meant to explain the intricacies of our everyday lives, just waiting to be unearthed.

Before I meet the man everyday at 5pm, right as he comes home from work, I hear the thundering, efficient sound of his footsteps gliding up the stairs. With the widest smile and an attentive tone, he greets me and asks

about my day. In this short conversation, where I then inquire about his day, Fidel reveals yet another intriguing detail about his past. Adding all of these interactions up over the course of half a year living in the same house together, I came to a promising conclusion. Fidel was dealt an unkind hand at life, but through his humility, intelligence, and determination, he has persisted in recreating his own opportunities towards success for his family and himself.



Disillusionment in Early Childhood

Fidel was fortunate enough to be born in the United States but, as a one year old, was forced to relocate to his mother's hometown in Santiago Naranjas, Oaxaca. After a destabilizing and spiteful divorce between his parents, Fidel's father gave his mother an ultimatum, either leave all the assets in his possession or give up custody of her son. Thus, the father took the entire family's savings and the house, leaving Fidel and his mother, Edith, alone to fend for themselves. When Edith could no longer find stable employment to provide for Fidel because of her illegal status, she decided to take her son to Mexico.

His mother knew that her child could not be raised in the turmoil of the third world country's excessive poverty. Education was not free for the first years of Fidel's life, and Edith not only struggled in paying for his tuition but also struggled in finding a way back into the United States. Finally, as Fidel was about to turn six, his mother and other family members saved enough money to make the journey. Despite being the country of his birth, Fidel knew nothing about American culture and could only speak Spanish. Immediately, he struck out as different and as underdeveloped for his age; this was made excruciatingly apparent by all of the other children.

Although now he has a removed and detached account of the bullying endured as a child, the tone in his voice cracked as he recalled being ridiculed for his mother's illegal status. Being called a wetback is the term he remembers most in his most unfortunate bouts of bullying, and only until a couple of fights did the other children ever leave Fidel alone. However, as he further progressed in elementary school and began finding his academic capabilities, teachers gradually became impressed and even astounded at how quickly Fidel was able to maintain and arrange all sorts of mathematical problems presented to him. He did not have a whole lot of friends, but he did have a natural talent for arithmetic. Opportunities to nurture and explore his abilities were quickly removed and shattered though when, at thirteen years old, Fidel was forced to immigrate back to Mexico.

A Hard Life in Rural Mexico

What had occurred was that Fidel's grandmother had become critically ill, and Edith was the only daughter that could care for her, prompting a move back to Mexico. Confronted with the problem of not being able to make an easy re-entry back into the United States, Edith had to make the difficult decision of leaving her children under the responsibility of her second husband, Fidel's step-father. What Edith had entrusted in her husband led to an unfortunate betrayal however, as the disgraceful man took advantage of her absence and engaged in an affair with another woman. Upon hearing the humiliating news, Fidel's mother left her husband and organized a plan to move the children back to her hometown where the family suffered even more dire living conditions.

There was no money, and it was only the mother now taking care of both Fidel and a toddler brother in an increasingly dangerous and impoverished part of rural Mexico. All of the family's resources were constrained towards covering the basic necessities and paying for both of the children's education. To make ends meet, his mother sold lunches, juices, and water at the local elementary school every weekday, and on weekends, she would travel a couple of towns over to a communal plaza market where she sold handmade tortillas. When there was a lack of buying customers, Edith would barter the tortillas with shop owners for fruits, bread, and other

groceries. Back at home, the children were tasked with maintaining chicken coops, an additional source of income for the family.

As an adolescent during this time, Fidel's secondary school fees became overwhelmingly expensive, and to make matters worse, the school was located in the next town over. Every morning, Fidel had to pay a costly fare and make an hour commute on the city buses to get to his eighth and ninth grade classes. When the boy finally got home after an exhausting day at school, he made his best efforts to complete his school work in a dimly lit home. Fidel remembers the warmth of his home as always being radiated by the love of his mother. Even if the walls were sheet metal and shaky wood or the dirt floors were too frigid at night, Fidel understood that his mother would always be devoted to keeping him and his brother safe, no matter the personal cost.

Religion was what Edith looked to in times of desperation, and Fidel remembers the few months where his mother was committed to praying for hours each night. She was asking for her children to make a safe crossing to the land of opportunity; always telling Fidel that if God wills it, the entire family would be together in the U.S.

Unfortunately, this could not be the case because while Fidel and his younger brother were American citizens, she would not be able to legally cross the border. Fidel paused for a second and lowered his head when I asked him about the day where he finally made the passage through the border. Side by side, he walked with his family through the customs line until the very end when his mother halted, pushed Fidel and his brother onwards, and remained back on the Mexican side of the border. Waving and devastated she was saying goodbye for an indefinite amount of time. She did not know when she could make the passage to meet her children on the other side.

Return to the United States

Shattered by the loss of his mother, Fidel walked across the border holding back tears and gripping his brother by the hand. Their aunt was waiting on the other side and was tasked with caring for the two for as long as it took to bring their mother back into the country, whether that be weeks or even years. In a state of dismay and confusion, the two children waited and waited for their mother and relied on public phones to remain in brief contact with her. Periods of no contact were common, and for weeks at a time, Fidel had no idea of his mother's whereabouts or if she was any step closer to reuniting with them. After a painful three months, the children received hopeful news; their mother was crossing the border to come back to them.

It took ten thousand dollars and a daunting trek across the Sonoran desert for his mother to reach California and reconnect with her children, and immediately upon reaching the country, she knew that starting over would require tremendous sacrifices.

Government programs helped cover the cost of food and housing, but the initial years of life in the U.S. were the most straining and demoralizing. Edith had found work in the Oxnard fields, picking strawberries and celery, but received low pay for the exhausting hours she worked everyday. Along with paying for the family's basic necessities, Fidel's mother was also indebted to the coyotes (illegal border guides) who brought her into the country. Thus, the family was consistently on the edge of being destitute and frequently transitioned between houses, at one point living in a garage and a house with seventeen other people.

Facing constant food and housing insecurity, Fidel was still nonetheless able to apply himself to his studies and graduated from high school, moving onto Oxnard Community college. Although he initially wanted to attend a four year university, his family needed his support at home and had absolutely no financial means of paying tuition. For two years Fidel devoted himself towards attaining the highest possible grades, optimistically planning to transfer to a University of California campus. The preemptive condition of graduating and transferring was whether he would be able to afford it, and in the last few months of community college, it looked as though this condition would not be fulfilled.



(Fidel's mother, brother, sister, and a family friend)

To Fidel's astonishing surprise, one day he received a letter in the mail from UC Santa Barbara, accepting him as an undergraduate student and offering him the Promise Scholarship, the golden ticket to paying for his entire university education. Reflecting on his hardships during childhood and on the sacrifices of his mother, a woman who was never granted the opportunity to progress past the second grade, Fidel accepted the offer and enrolled as a Mathematics major at UCSB.

Flourishing at UC Santa Barbara

Met with a fast-paced and disorienting transition into university life, Fidel initially faced troubles adjusting, but once the man gained traction, he began excelling academically and even enrolled in a second major in Math. Now an established student, thriving in mathematics and

willing to exceed any academic expectations, Fidel knew that his course for success would not stop at UCSB. Attending graduate school then became his primary focus, and he found himself participating in the McNair Scholars organization, a program for bright first-generation students working towards post-graduate degrees.

Embedded in the persistent help, accommodating environment, and friendly competition of the program, Fidel found his support system and community at UCSB. In retrospect, he attributes the McNair scholars and staff as the folk who were integral to his academic success, and without them, he would not have been where he is today. Not only did he make life-long friends and connections here, but the program was also responsible for waiving over a thousand dollars worth of graduate school application fees. Furthermore, it allowed him to engage in mathematics research, which inspired the passion and foundation of his future career in education. It was a life changing opportunity, as Fidel explained it.

In three years, Fidel graduated from UC Santa Barbara with Bachelor's degrees in both Math and Economics. During the Spring quarter right before graduation, he received an email from New York University, notifying him of admittance into the highly selective and prestigious masters program of Mathematics. As of now, Fidel still resides in Isla Vista, working as an accountant in a major automobile exporting company. This coming summer, he will be packing up his life and wrapping up his years spent at UCSB, so that he can move across the country and pursue a post-grad education. One day he wishes to be a professor, conducting mathematical research on equations aimed at exploring varied figures ranging from the chances of probability to the movement of water.

I personally met Fidel Lopez last summer, and from the get-go, knew that he was an intelligent, capable person. Over the course of the year, this assumption has been cemented, and it is lamentable to know that he is moving away in such a short time, albeit to do great things of course. As a first-generation student myself, his story inspired me and reminded me of my roots. It reminded me of my own fortune and of all the kids I grew up with who suffered from similar circumstances as Fidel but were never granted the opportunity to overcome their situation. It reminded me of our immense responsibility as first-generation students to pave the way for others like us. As Fidel's favorite quote goes: "We are standing on the shoulders of giants." It is through the collective, gradual, and long-standing efforts of others before us that allows us to progress today and into the future.

