Growing up in Queens, New York, first-generation American Alicia Abella never imagined her career path would eventually lead to the White House.

Her Cuban-born parents helped pave the way, emphasizing how education was a means to opportunity. Abella remembers how her family cut coupons and relied on hand-me-down clothing to save money for her tuition.

“My parents came to this country to give me the opportunities they didn’t have,” Abella said. “They saw that the best route to achieve that American dream was through education.”

It’s a lesson that continues to resonate with Abella today as an executive who aims to foster greater understanding of science and engineering among a diverse pool of young students.

Abella received a bachelor’s degree from New York University and an MS, MPhil, and PhD, all in computer science, from Columbia Engineering. She chose the School for its strong computer science program and even met her husband, Aleksandar Timcenko MS’91, MPhil’93, PhD’94, during graduate school.

“As soon as I graduated from Columbia, I joined AT&T Bell Labs and went straight into, and continued on, the work tied to my thesis at Columbia,” she said. Abella’s thesis centered on natural language generation, which involved developing computer programs that automatically produced coherent language. Her advisers at the time were Professors John Kender and Kathleen McKeown.

Abella is now executive director of Innovative Services Research at AT&T Labs, where she oversees a staff of 10 people who work in the area of emerging devices and “the services those devices inspire.”

“We’re looking at new devices that go beyond the telephone and computers—devices that haven’t even been seen before,” Abella added.

Her 17-year career at AT&T helped propel her into the spotlight. In 2010, Abella was chosen as one of the top five women of the year by Hispanic Business magazine.

A few weeks later, she was nominated to join President Barack Obama’s Advisory Commission on Educational Excellence for Hispanics. Abella became a commissioner in May 2011, after an extensive, months-long background check.

“I never would have imagined when I was young … that I’d end up in the White House, being part of something that could affect so many people,” Abella said. “Our role as commissioners is really to bring back to the president recommendations on what to do to help that particular group.”

Abella is one of 30 commissioners who meet twice a year at the White House. Her focus is on corporate/public partnerships and media.

“I am very passionate about the role media plays in trying to encourage students to pursue an engineering degree and become scientists,” she said. “The media doesn’t do the science people justice.”

A strong believer in diversity in and out of the workplace, Abella’s leadership doesn’t end with her work on the commission. She’s executive vice president for Young Science Achievers, where she encourages high school girls and minorities to pursue careers in science and engineering. She’s also chairwoman for the AT&T Labs Fellowship program.

All of her accomplishments aside, Abella said her parents’ sacrifices gave her a deep appreciation for hard work and sacrifice.

“To them, I was an example of the American dream.”