

# IF WE BUILD IT, THEY WILL, TOO

With donor support, women pursuing majors in science, technology, engineering and math at Iowa State learn to build a bright future for themselves – and for those coming up behind them.

By Susan Flansburg | Photo by Paul Gates



➤ **Machining queen**  
Proud to bear the name of an Irish warrior queen, **Maeve McCloskey** tests her mettle in the Johnson-Engel CNC Machining Lab in Black Engineering.

ASHLEY TREVINO REMEMBERS spending many a day watching her father as he drilled, sawed and soldered in his Texas workshop. By the age of 10, she knew what she wanted to do when she grew up: build things.

Hundreds of miles north, young Maeve McCloskey was coming to the same realization. “I wanted to put together anything that came in a box and had to be assembled,” she says. “I installed new sinks and put on door knobs during a remodeling project. My parents were very supportive of me.”

Yet McCloskey remembers others around her expressing incredulity that she wanted to be an engineer. “What bothered me was their shock and surprise. They’d say, ‘You’re studying engineering? That’s really tough!’”

Trevino’s experience mirrored McCloskey’s. “They’d look at me like, ‘You’re a female. A female of color. How are you going to make it?’”

According to Lora Leigh Chrystal, director of Iowa State’s Program for Women in Science and Engineering, these are precisely the kinds of remarks that can undermine women’s and girls’ confidence, creating a feeling that they don’t belong in technically demanding and male-dominated majors or careers.

“Bolstering women’s confidence is key to recruitment and retention in their chosen field,” Chrystal says. “Women choose careers they think they can succeed in. WiSE supports them from all sides, to help them believe in their ability. In all metrics, women in the WiSE program do better than those who do not participate.”

Founded in 1986 by a group of Iowa State faculty and staff concerned about the underrepresentation and underutilization of women in science



## ➤ Full STEM ahead

Donors supporting women in STEM majors are as passionate as the students themselves about putting in place the building blocks to ensure their success at Iowa State and in their careers. The Women in Science and Engineering Scholarship Fund was established to hold contributions from multiple donors designated to support students in WiSE, including the Charles T. Wright Memorial Scholarship that **Ashley Trevino** received, or the support from the Diane Brandt Fund McCloskey received. Other donor-directed funds support study abroad for women in STEM majors, such as the Stanley International Learning and Development Fund and the Mette Lundsgaard WiSE Travel Fund. Such support can provide the extra steam these students need to power them along the way.

To support WiSE go to [wise.iastate.edu/giving-to-wise](http://wise.iastate.edu/giving-to-wise)

and engineering, WiSE has since grown exponentially, both in its programming breadth and its impact on the women-in-STEM pipeline.

Donor support for WiSE has likewise grown – for K-12 outreach programs such as the Go Further conference and Student Role Models; programs for undergraduates, including scholarships, leadership development programs and academic support; and overall WiSE program operations.

“Women’s enrollment in STEM majors has increased more than 300 percent, from 1,819 in 1986 to over 5,600 more recently. Overall, women are nearly at parity or even above in some STEM majors,” Chrystal says, adding that other majors such as engineering and computer science, where women make up 16 percent and 10 percent of graduates, respectively, still have room to grow.

Both McCloskey, a senior in industrial engineering, and Trevino, a May graduate in mechanical engineering, credit WiSE with keeping them on the road to success.

“Peer mentors helped me work through my struggles here,” McCloskey says. “I’ve become a peer mentor myself to help other women. And scholarship assistance has helped me focus on my studies instead of my bills.”

“My dad died in 2008, leaving my mom to raise me by herself,” Trevino says. “Receiving the J. Alex Brown Scholarship really helped ease the stress I was under. It also made me feel good to know there are people who support Hispanic women in engineering.”

And when they leave Iowa State to pursue the careers that women even a generation earlier might not have chosen, Trevino and McCloskey will have already succeeded – by extending the road for other women to follow. ■