



## Invited Letter: Greetings from the U.S. National Science Foundation

**Keywords:** NSF, ATE, technician education

© 2025 under the terms of the J ATE Open Access Publishing Agreement

### ***From First-Generation Student to Champion of America's Skilled Technical Workforce***

My story begins in Sparta, Greece, where I was born before becoming a naturalized U.S. citizen at age 10. As a first-generation college student and engineer at Virginia Tech, I balanced my studies while staying connected to my family in Richmond, VA, by taking courses at J. Sargeant Reynolds Community College. This experience at a community college opened my eyes to the transformative power of accessible, practical, and affordable education. Throughout my eleven years of engineering studies and research at Virginia Tech, I worked closely with skilled technicians across aerospace, mechanical, and biomedical applications, developing a deep respect for their essential contributions to innovation. My success depended on these skilled technicians, and I was indebted. This foundation led me to my current role as lead program officer for NSF's Advanced Technological Education (ATE) program, where I champion the skilled technical workforce—nearly half of all STEM workers—that drives America's innovation leadership and global competitiveness.

My career path diverged from traditional routes when I chose to build something new rather than join existing academic programs. As founding engineering faculty at James Madison University in Harrisonburg, VA, and later leading engineering at Wake Forest University in Winston-Salem, NC, I pioneered education approaches that prioritize student success. My 2015-2017 rotator experience at NSF proved pivotal, especially working with Dr. Celeste Carter, who illuminated how community colleges serve as more than access points—they are the cornerstone of our nation's innovation ecosystem. Returning to NSF in 2024, Celeste pulled me to support ATE again and I was honored to serve and honored to now lead ATE.

The future of ATE's impact depends on our commitment to rigorous knowledge sharing through peer-reviewed publication in venues like the Journal of Advanced Technological Education (J ATE). These platforms allow us to document, replicate, and scale successful practices and projects across the community. I envision J ATE as a space for honest dialogue about both our triumphs and our setbacks, because authentic learning happens when we share openly. Having witnessed firsthand how skilled technicians drive innovation, I know that without a robust technical workforce, our nation's competitive edge will diminish. Our collective mission must be to develop the next generation to surpass our achievements, and J ATE serves as a crucial vehicle for demonstrating and amplifying the transformative impact of our work.



**Olga Pierrakos**

***Program Director***

***Division of Undergraduate Education***

**The National Science Foundation**