



# FIRST2 NETWORK

## DOUBLE THE STEM GRADUATION RATE

The First2 Network is an expanding group of people and organizations working to increase the number of college graduates in science, technology, engineering, and math (STEM) to strengthen our communities and drive an innovation economy in West Virginia and beyond. First2 focuses on rural, first-generation, low-income, and other underrepresented STEM students, making sure all our students can succeed. First2 works in true partnership with student leaders, tests and learns with stakeholders to share and scale high-impact practices, and works to drive systemic change through informed policy and resource allocation.

FIRST2NETWORK.ORG



JOIN FIRST2!



of WVU STEM students persisted through graduation in 2019

*compared to*



of all WVU STEM students who participated in the First2 Network through programs, running clubs, and testing change ideas remained enrolled in a STEM major



of WVU first-generation and underrepresented students who participated in First2 two-week summer research immersions persisted in STEM (2018-2022)



of all First2 Network STEM sophomores and higher persisted fall-to-fall (65 of 90 students, fall 2018-2022)

“...I was considering changing my major before I had the opportunity to do research, but when I started that and also getting to meet people — that was one of the major, major benefits — was having a strong network of peers with similar situations and similar interests as I am, and just having that support for my friends and having the opportunity to do research made me convinced like, ‘Okay, biology is for me.’”  
- First2 Network Student

First-generation STEM undergraduate students at WVU have fall-to-fall persistence rates between **49%** and **64%** (2005-2018). The STEM persistence rate among all First2 Network first-time freshmen is **71%**, and among First2 Network sophomores and higher, **72%**. Based on the 2023-2034 tuition rates, in-state residential students pay \$22,668 a year for tuition, fees, and housing at WVU.

**If 100 WVU STEM students participate in First2, 72 students persisting (72%) vs. 49 students persisting (49%) at WVU could equal**  
**as much as +\$521,364**  
**in income per year.**



The First2 Network is supported by the U.S. National Science Foundation under Award Numbers: HRD-1834586, WV Higher Education Policy Commission; HRD-1834601, Green Bank Observatory; HRD-1834575, Fairmont State University; HRD-1834586, WV Higher Education Policy Commission; HRD-1834595, High Rocks Educational Corporation; HRD-1834569, West Virginia University.

# OUR STORIES:



First2 Student Director Kaleb Cole from Pennsboro, WV is a junior majoring in Computer Science at West Virginia University Institute of Technology. When speaking about what the First2 Network can offer future members, he said, "I think the First2 network is a great organization for giving opportunities. Having students that wouldn't have the ability to be exposed to the things that they're exposed to, like meeting with professors or networking with professors, building relationships with professors and other people from different areas, because you don't know what you don't know. When you have connections with faculty, and students, you then get to build an idea of what [your] major entails and how college life is supposed to be."

"The First2 Network Industry Advisory Board is a group of industry professionals from diverse STEM fields that provides support for First2 Network students and partner organizations. Our mission is to bridge the gap between the needs of the industry and career development through an open line of communication between the Industry Advisory Board, academic organizations, and students. The Board provides programs to help students in career readiness including a mentoring program to connect students to academic and industry mentors, providing Q&A sessions for students and faculty, and more. Many members of the Industry Advisory Board come from similar backgrounds as the students the First2 Network serves and understand the challenges these students face in their education and entering the workforce." -Kel Cecil, VP Engineering, InspectionGo



First2 participant Ashlea Krasňanský is a first-generation senior at Marshall University studying mathematics, communication studies, and digital humanities. She presented at the American Studies Association's international conference and reflected, "This opportunity gave me the chance to contribute to the positive change of the narrative surrounding our state and the Appalachian region. Additionally, I was given the immense opportunity to represent student voices on an international level – proving to many that the first step to deconstructing barriers of persistence and success starts with the integration of students in that work."

"I am a first-generation and I can make a difference". When I heard this from a group of students during the 2021 First2 Network Convening, it brought me back to my first years in College. At that time, as a first-generation student, I couldn't have been more scared. The feeling of not belonging to that place, which no one had prepared me for, was overwhelming. It was when I met other students who, like me, were also the first in their families to go to College, that the feeling began to wear off. Being part of that small community encouraged me to seek opportunities, which ended up shaping my whole career. During my college years, I got a scholarship to participate in undergraduate research and since then, a new world of opportunities has opened to me. After getting my degree in Dentistry, Masters and PhD. in Biological Sciences I started my career as a University Professor in my home country, Brazil. Today, as an Assistant Director of the Office of Undergraduate Research at WVU and part of the First2 Network I seek to create opportunities to engage students in research, particularly for those who are underrepresented and first-generation. Participating in research experiences will have a huge impact in their lives, just as it did for me. Paraphrasing the students from First2 Network, I can say today that I am a first-generation and I am making a difference!" -Cinthia Pacheco, Ph.D., Director of Undergraduate Research, WVU

