



# PathTech LISTEN

Mixed Methods Longitudinal Investigations of Students in Technician Education

## Research Brief Series

## Volume 1, No. 3

### Wave 1 Preliminary Findings Yield Several Interesting Themes Lakshmi Jayaram, Ph.D. & Teresa Potter, M.S.L.I.S

Wave 1 interviews covered a variety of topics including post-high school pathways into higher education and career, experiences in the technical program, work experience, STEM education background, family background, and life experiences that created interest in the technician field. Preliminary analysis has yielded several interesting themes:

#### *Education/Career Pathways*

Students' post high school pathways shows diversity in experience between traditional-aged and non-traditional aged students as well as within each group. Some traditional-aged students went into A.S. programs directly from high school, while others took technician classes at community colleges as dual-enrollment students and then continued to four-year programs. Some non-traditional aged students worked in the field prior to enrolling in technical programs while others were seeking a career change. Some participants had STEM educational backgrounds and others had none. There were also students who had previously completed bachelor's degrees in STEM fields who were seeking applied credentials.

#### *Two Examples of LISTEN participant paths:*

1) worked in the retail industry, 2) completed a two-year program, 3) received a bachelor's in engineering.

1) worked as a social worker, 2) took a few technician classes, 3) received a master's in a STEM field.

#### *Experiences in their Technical Programs*

Overall, participants responded very favorably about their experience in their programs. In particular, students spoke very highly about their instructors and appreciated the real-world experience many of them brought to the classroom. They enjoyed project-based learning and actively learning by doing. Students felt their programs' well-equipped labs with the latest technology provided them with a seamless

transition to the equipment they used at their workplaces. In addition, students across the board found their programs to be "100%" relevant to their jobs in the technician field.

One area that several students struggled with was scheduling classes. Students felt there were often a limited number of classes offered each term, and this sometimes slowed their progress towards completing their programs. Some students had to wait an extra semester, or even a year, to take a prerequisite class in order to complete required sequences.

#### *Work Experience*

LISTEN participants indicated that they loved working in the technician field and reported high levels of job satisfaction. When asked to describe their jobs, they often used phrases such as "trouble-shooting," "problemsolving," "active," and "everyday is new." Most people did not describe many challenges in the workplace, however some women respondents did describe some issues.

#### *Educational Background*

Outside of those who participated in dual enrollment, most were limited in the math and science courses they took during high school. Students who participated in career and technical education in high school described a very positive experience and did find it to motivate their interest and commitment to joining the technician workforce.

#### *Life Experiences that Triggered Interest in the Field*

LISTEN participants discussed experiences where they could "fix things," and/or satisfy their curiosity for "how things work", where they could innovate and improve on an existing system or create something new. Many respondents fondly remembered activities such as building and design projects from high school, STEM Fair projects, and the "egg-drop" challenge.