PathTech LISTEN Update

ET Forum – Fall 2020

PathTech Targeted Research

PathTech LISTEN: Mixed Methods Longitudinal Investigations of Students in Technician EducatioN (#1801163)

Three longitudinal follow-up interviews and survey with PathTech LIFE respondents from a variety of backgrounds.

Wave 1 - 96 interviews in 2019 on background, college experiences, and current status

Wave 2 - 81 interviews in 2020 to date are devoted to the COVID crisis and follow-up

Wave 3 interviews in 2021 will focus on goals and aspirations

Wave 3 survey on educational and employment status will serve as a pilot survey for future research.

PathTech

Successful Academic & Employment Pathways in Advanced Technologies

PathTech LISTEN Timeline

Period	Activity	Year
October 2018 – February 2019	Continued analysis of PathTech LIFE data to prepare for LISTEN	**Year 1**
March – April 2019	Complete Interview Guides; Get IRB approval; Developed sampling strategy	
May – September 2019	**Wave 1 Recruiting and Interviews**	
October – December 2019	Complete remaining interviews; Start transcriptions; Present at ATE PI Meeting	**Year 2**
January 2020 – March 2020	Complete transcriptions; begin coding and analysis of Round 1 Interviews	
April 2020	Apply for COVID Round 2 supplement	
May 2020	Develop Interview Guides related to COVID; Re-recruit Round 1 participants	
June – September 2020	**Wave 2 Interviews on COVID crisis**	
September 2020	Write-up Round 2 COVID Interview preliminary analyses and Annual Report	
October 2020	Virtual presentation at ET Forum and ATE PI Meeting	**Year 3**
November 2020 – February 2021	Continue Round 2 coding and analysis	
March – May 2021	**Wave 3 Interviews (post-COVID?)**	
June – July 2021	Analyze Round 3 Interviews; Develop Year 3 Survey	
August – September 2021	Administer and Analyze Year 3 Survey; Write-up Analyses and Final Report	

Wave 1 Findings From ATE Impacts 2020-21

PathTech LISTEN

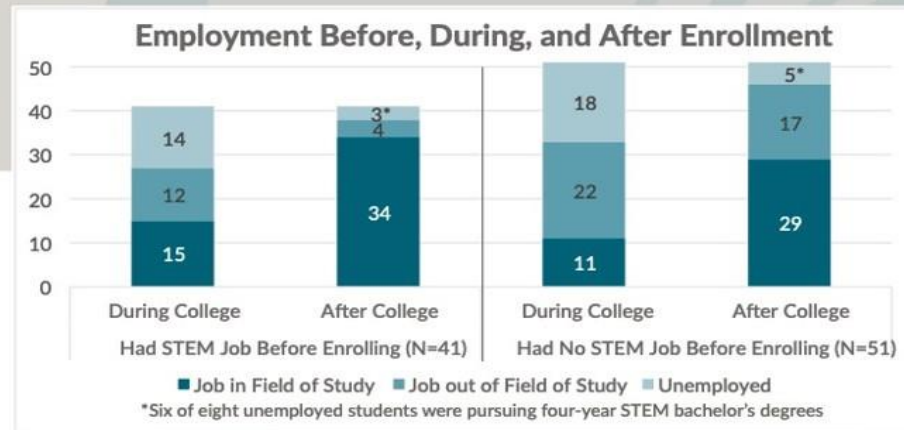University of South Florida, Tampa, FL
https://ate.is/pathtech

Longitudinal Study Finds Tech Ed Programs Effectively Growing STEM Workforce

PathTech LISTEN aims to survey and conduct two interviews with former advanced technology students to learn about their transitions into the workforce and/or continuation of their education.

As of summer 2019, 92 interviews were conducted with alumni of engineering technology, advanced manufacturing, micro and nanotechnology, and energy and environmental technology programs. Participants were recruited from the 3,216 students who completed the PathTech LIFE survey. They include recent high school graduates, bachelor's degree recipients, and non-traditional age, first-time-in-college students. Most planned to complete AS/AAS degrees, certificates, and/or licenses.

Overall, findings indicate LISTEN participants successfully transitioned into the workforce. Most participants reported that their college programs provided excellent preparation for their current jobs.

Employment Before, During, and After Enrollment

Had STEM Job Before Enrolling (N=41): During College — 15, 12, 14; After College — 34, 4, 3*

Had No STEM Job Before Enrolling (N=51): During College — 11, 22, 18; After College — 29, 17, 5*

■ Job in Field of Study   ■ Job out of Field of Study   ■ Unemployed
*Six of eight unemployed students were pursuing four-year STEM bachelor's degrees

Twenty-six of the 92 interviewees had jobs in their fields of study while enrolled; 63 did after college.

Notes from Wave 2 (2020) Interviews (n=82)

Participants still in their technician education field of study:

- 82% of participants were still in their field of study
- 69% were working in their field of study
  - 11% earned a promotion at their company
  - 23% worked at a new company
- 60% were in a full-time job related to their field
- 35% were enrolled in a two-year or four-year IHE (25% working while enrolled)
- 6% were unemployed and looking for a job in their field

Notes from Wave 2 (2020) Interviews

Personal and professional impact of COVID-19:

- 4 participants had COVID-19 (5%)

- 48% of participants knew a family member, friend, or co-worker who had COVID-19

- 13% of participants lost their job during COVID-19 crisis including 9% of those in the field.

- Among participants with a full-time job related to their field:
  - 65% work on-site, 8% work remote, and 27% alternate in order to social distance at work
  - 90% were deemed essential workers

Wave 2 Emerging Themes

- Maintaining Status Quo

- Stories of Perseverance

- Pathways Derailed

- Discovery of New Interests

- Work-Life *Collision*