



Is There Too Much Pressure to Attend University in the United States? A Case Study in Western Ohio

Greg Homan¹

Jason Hedrick²

Jason Horstman³

Received: 17 June 2022 / Accepted: 30 June 2022 / Published: 24 November 2022

© 2022 Homan Greg, Jason Hedrick & Jason Horstman⁴

Doi: 10.5281/zenodo.8154755

Abstract

Researchers sampled 431 graduating seniors from nine high schools within three counties in western Ohio evaluating workforce competencies of high school graduates, post-high school career and educational goals, and perceptions of various career and work paths (college, trade school, military, or entering the workforce directly). Based on the Ohio Means Jobs Readiness Seal, respondents reported relative higher skills in self-management categories such as work ethic, professionalism, and reliability. The lowest ratings were found in more technical areas of quantitative skills, use of digital technology, and written/oral communication. High school seniors report college as the preferred path to reach their future goals with significantly stronger encouragement from parents, community for college as compared to attending trade school, the military, or entering the workforce directly. With the growing skilled trades gap (Johnson, 2018) should the college degree continue to be pressured (Horn & Moesta, 2020)? The research found here can assist in the development of career programs that may enhance or broaden acceptable career options for our students and assist our countries economic needs. Moreover, as parents are continued to be identified as key influencers or potential drivers for student choices, the applications of this research needs to include more direct information to parents regarding the

¹ Wright State University Lake Campus, Email: greg.homan@wright.edu

² Ohio State University Extension, Email: hedrick.10@osu.edu

³ Wright State University Lake Campus, Email: jason.horstman@wright.edu

⁴ This is an Open Access article distributed under the terms of the [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by-sr/4.0/), which permits unrestricted use, distribution, adaptation, and reproduction in any medium, provided that the

original work is properly cited.



growing opportunity that lies within the skilled trades. As the baby-boomers continue to retire, and the work force continues to require more diversity of skills the implications of this snap shot into the current trends of students choosing college over what the State of Ohio continues to list as job demands, it is evident we have yet to solve the problem and meet the needs of the current work force.

Keywords: *Workforce, training, education, employment*

Theoretical Framework

Career Planning

Educational systems and communities impact the career trajectory of young people. Youth begin to explore their career choices around the age of twelve. Schools are a contributing factor in the career planning process. Parents are the strongest influence as youth make their decisions based on their personal evaluation of interests and perceptions of their academic ability. (Moore, et. al, 2021). Relationships with mentors and adult coaches or supervisors has been found to have a strong relationship with a young person's beliefs about seeking the training or education necessary to achieve particular career goals (Bennett, 2007). Kazi & Akhlaq (2017) found peers of young people to have a significant impact on the youth career decision choice.

College Pressure

In 1980, 32% of counselors and teachers advised all students to go to college. Just ten years later, in 1990, that percentage had doubled with roughly two-thirds of educators recommending college for all. Despite a recent increase in the popularity for career and technical education, the college recommendation trend has increased over the last generation (Horn & Moesta, 2020). Many young adults across the United States enroll in college to do "what's expected of them." These students go to college not because they want the college experience or because of the career goals they perceive college will help them obtain. They choose college because it is a socially acceptable answer to what they are doing next.

According to the research of Horn & Moesta (2020), 74 percent of those who attended college to "do what was expected of them" dropped out or transferred. According to the National Student Clearinghouse Research Center (2019), 58% of college students beginning their education in the

Fall of 2012 had not earned a college degree six years later. In some communities the parental and community expectation to attend college is so extreme, that parents feel they have to defend or justify their children taking other paths (military, trade school, or entering the workforce directly). College is increasingly unaffordable, with college debt a significant factor. According to Education Data.Org (2020), Ohio has the highest number of indebted borrowers per capita with an average student loan debt of \$34,600. Attending an expensive four-year college program without the right motivation and mindset could be an expensive mistake for many students.

Are Skilled Trades the Answer?

The skilled trades industry is an alternate path that currently has significant shortage of trained and willing workers to pursue openings. This unavailability of skilled trade labor, in the U.S. is having a negative impact on the economy. Many high school seniors are unaware of the careers and job opportunities in the skilled trades. According to a 2018 Deloitte study, the skilled trades gap could leave an estimated 2.4 million skilled trade positions unfilled between 2018 and 2028, which could have a potential economic impact of \$2.5 trillion in the U.S. A study of young adults conducted by the National Center for Education (2020), found only 11% of young adults think trade schools lead to high paying jobs. The study also found that 54% think the trade school pay gap (as compared to a traditional 4-year college degree) was higher than it really is (\$47,000 starting average pay for a BS Degree versus \$35,000 for technical and trade school jobs) (NCE, 2020). Many are starting to question the predominant pressure that most high school graduates attend traditional college programs. The wage gap (or the difference in salary) between high school and college graduates has changed significantly, since 2000. Now, 25 percent of college graduates now earn no more than does the average high school graduate (Ruppel-Shell, 2018). In addition, Ruppel-Shell (2018) found in a review of the Bureau of Labor Statistics that, “fewer than 20 percent of American jobs actually require a bachelor’s degree. By 2026, the bureau estimates that this proportion will rise, but only to 25 percent.”

Changing Workforce Needs

The World Economic Forum (2018), found only 27 percent of small companies and 29 percent of large companies believe they have the digital talent they require. Over the past decade, most jobs have rapidly increased the level of technology used in production, communication, finance, logistics. Today’s business platforms are more complex, requiring enhanced skills and training.

Advanced manufacturing can be described as technologically oriented and advanced processing to make high-value products. There is a growing need for skilled workers in the areas of advanced manufacturing. There is a general shortage of skilled workers in the US Manufacturing sector (Johnson, 2018). Locally, when analyzing employment projections in the Western Region of Ohio, the careers expected to see the highest percent growth in demand are in health care, digital technology, and quantitative data. Specific in-demand positions include Home Health and Personal Care Aides, Nurses and Nursing Assistants, Actuaries and Statisticians, and Software Developers and Information Security Professionals. (Ohio Means Jobs Employment Projections).

Throughout Ohio and across the United States, employers and community leaders frequently identify a skills gap, the current pool of available applicants for positions not matching the skills and training that are needed for today's jobs. According to "Bridging Ohio Workforce Gap," a consortium of education and employment organizations, 65% of employers looking to fill positions have concerns about finding qualified applicants with the skills to fill today's jobs. They focus on "attainment rate", or the percent of adults aged 25-64 that have high-value credentials (e.g., certificates and certifications) or postsecondary degrees (e.g., bachelors, associates, etc.). According to this consortium, Ohio currently has an attainment rate of 49.2% of adults with the necessary skills and credentials for today's jobs. They suggest that Ohio will need to reach 65% attainment rate to remain competitive in the current economy, with a current deficit of one million Ohioans with the necessary skills. According to the National Association of Colleges and Employers (2020), the top five skills employers are looking for include: problem solving, team working skills, work ethic, analytical/quantitative skills, and communication skills. A study of Western Ohio Graduating Seniors conducted in 2017, found the strongest ratings on workforce skills were found on the social-dynamics related questions. The top five rated components included: making ethical decisions, working cooperatively with others, personal relations, managing time/following directions, and goal setting/self-control. The lowest skills being self-evaluated by respondents tended to be on components assessing technology use, mathematical skills, and the development of reports/writing skills (Homan, Hedrick, Light, 2019). The skills graduating high school seniors report as their weakest, relative, skills are those commonly identified as those most in-demand by current employers.

Research Objectives

The objectives of this research study were to 1) analyze the workforce skills of high school graduates in West-central Ohio, based on the Ohio Department of Education Career and Workforce Readiness Criteria, 2) determine the post-high school plans of area high school graduates, 3) evaluate the influence factors on the post-high school plans of high school graduates, and 4) evaluate the perceptions and viability of post-high school plans (including direct to workforce, military, trade school, or college).

Methods

This descriptive and correlation study was conducted in spring of 2020 to assess workforce competencies, post high-school plans, and influence factors on career/workforce goals of graduating high school youth in West-Central Ohio. Nine high schools were identified in three study counties in Western Ohio (Mercer, Auglaize, and Shelby Counties). An online survey instrument was distributed to high school graduating seniors with 431 completed surveys. Descriptive statistics analyzed overall youth ratings of workforce skill developments and contributing factors to skill development.

Results

Demographic Data

Of 431 sampled students in nine school districts within Mercer, Auglaize, and Shelby County, in Ohio, 56% were female, 44% male. A large percentage of their parents were employed in the management/professional, manufacturing, and skilled trades as professions. A relatively low percentage of the parents of these high school seniors had completed Bachelors or Graduate Degrees (approximately 42% of mothers and 30% of fathers). 23.4% of the survey respondents participated in a vocational training program during high school. Large numbers of these students were regularly volunteering, with 63.8% donating over one hour per week. 91% of sampled students were employed at-least part-time in the past year.

Survey respondents self-evaluated their relative ratings on sixteen Career and Workforce Competencies identified in the Ohio Department of Education Career and Workforce Readiness Seal. Using a standardized five-point Likert-Based scale (5 = Strongly Agree, 1=Strongly

Disagree), the strongest ratings on workforce skills were found in Professionalism (4.69), Work Ethic (4.69), Reliability (4.68), Career Management (4.64), and Diversity (4.62). The lowest self-ratings from high school graduating seniors in this sample were in Oral Communications (4.16), Written Communications (4.19), Digital Technology (4.24), Quantitative Skills (4.32), and Creativity (4.38). (See Table 1). These findings are consistent with earlier research of Homan, Hedrick & Light (2019), which found similar ranking of workforce skill traits.

Table 1. Career and Workforce Readiness Skills

Career and Workforce Readiness Skill	Self-Rating
Work Ethic	4.69
Professionalism	4.69
Reliability	4.68
Career Management	4.64
Diversity	4.62
Critical Thinking	4.53
Punctuality	4.53
Discipline	4.50
Teamwork	4.50
Learning Ability	4.46
Creativity	4.38
Quantitative Skills	4.32
Digital Technology	4.24
Written Communication	4.19
Oral Communication	4.16

Likert-Based Scale (5=Strongly Agree, 1=Strongly Disagree) n=431

Students in the sample were asked what their post-high school plans were. The majority of students (75.5%) responded college was their next step. Approximately 13.9% were planning to enter the workforce directly, 4.2% pursuing trade school and 3.7% a military path. 2.8% of respondents were unsure of their path (See Table 2).

Table 2. Post-High School Path Choice

Post High School Path	N	Percent of Respondent
College	326	75.5%
Workforce Directly	60	13.9%
Trade School	18	4.2%
Military	16	3.7%
Don't Know	12	2.8%

Utilizing a Standardized Likert-Based Scale with 5= Strongly Agree and 1=Strongly Disagree, graduating seniors were asked to evaluate multiple potential factors on their post-high school (college, trade school, workforce, or military). Questions with “Job opportunities” and the “potential for higher earnings” were the strongest factors of those evaluated.

Table 3. Impacts on the Post-High School Choice

Factor	Mean Rating
Job Opportunities	3.18
Potential for Higher Earnings	3.02
Need Skills before Working	2.75
Family Influence	2.75
Friend Influence	2.14

Likert Based Scale (5=Strongly Agree, 1=Strongly Disagree, n=386)

The decision to pursue various paths post-high school (college, workforce-directly, trade school, or the military) is an important decision for graduating seniors. The researchers found significant differences in personal assessment of viable options as well as significant differences in the encouragement of various choices. Ranking on a standardized Likert-based scale of 5=Strongly Agree and 1=Strongly Disagree, “attending college” is rated as the path most seriously considered by high school graduates at 4.37, with entering the workforce at 2.57, trade school at 2.21, and military at 2.24. High school seniors report significantly higher levels of encouragement to pursue college from their families, high school, and community than other paths of workforce-directly, trade school, and military. ANOVA of variance found significant differences on responses for seriously considering, the encouragement to consider various post-high school paths, and their likelihood of success at p.0000 level. Responses indicate higher self-assessment of likely success in college (versus other paths) and higher levels of encouragement and even higher levels of pressure to attend college (than other paths). (See Table 4).

Table 4. Perceived Viability, Support, Pressure of Post-High School Paths

Question	College (Mean)	Workforce (Mean)	Trade School (Mean)	Military (Mean)	df	SS	F	Sig.
I seriously considered:	4.37	2.57	2.21	2.24	3	1223.8	209.6	.0000
I was encouraged by my family to pursue:	4.21	2.20	2.17	1.91	3	1316.7	279.9	.0000
I was encouraged by my High School to pursue:	4.23	2.26	2.36	2.43	3	1028.8	221.1	.0000
I was encouraged by my community to pursue:	3.66	2.21	2.21	1.96	3	696.7	150.2	.0000
A person like me can find success in:	4.27	3.05	2.94	2.81	3	528.4	90.0	.0000

I felt pressured this was my only path:	2.61	1.89	1.75	1.58	3	237.7	45.9	.0000
---	------	------	------	------	---	-------	------	-------

Likert Based Scale (5=Strongly Agree, 1=Strongly Disagree, n=386)

Students selecting to attend post-high school training at either a college or trade school setting were asked to evaluate the influence on their choice. The majors or programs offered by a particular college or trade school was the strongest factor. Location, Cost/Scholarships and Family Influence were moderate factors in the decision. The extracurricular options and influence of friends were not ranked as strong in their decision. Responses seem to suggest that young adults have multiple options as most indicated that they strongly disagreed with their college/trade school choice being their “only option.” (See Table 5).

Table 5. Influence Factors on the College/Trade School Choice

Factor	Mean Rating
Majors/Program Offered	3.30
Location	2.98
Cost/Scholarships	2.95
Family Influence	2.39
Extracurricular Activities	1.99
Friend Influence	1.87
Only Option	1.42

Likert-Based Scale (5=Strongly Agree, 1 = Strongly Disagree, n=370)

Students that were pursuing workforce directly (n=94) were asked to select all factors that applied in their decision. Having immediate income/wages and local job opportunities were the top reasons identified. Lower-ranked reasons for immediate entry into the workforce were “costs were too high for college/trade school,” family influence, and friend influence (Table 6).

Table 6. Factors on the Decision to Enter Workforce Directly

Factor	Percent Respondents Selected
Immediate Income/Wages	28.7%
Job Opportunities	26.6%
College/Trade School Costs Too High	16.0%
Family Influence	10.6%
Friend Influence	2.1%
Other	16%

N=60 (select all that apply)

Military-bound students (n=41) were asked to identify the factors that impacted their decision to pursue military service upon graduation. The strongest factors included the “Desire to Serve” and the “Influence Family.” Lower-rated influences included “Money” and “Friend Influence” (See Table 7.)

Table 7. Factor on the Decision to Enter the Military

Factor	Percent Respondents
Desire to Serve	31.7%
Family Influence	22.0%
Money	14.6%
Friend Influence	7.32%
Other	17.1%

N=16 (select all that apply)

Graduating High School Seniors were asked to evaluate their confidence in their Post-High School Career/Workforce Path, as well as the level of guidance and information they were given to make their choice. 86.8% of graduating seniors agree that they feel confident in their post-high school path and 83.16% indicate they are aware of the steps they need to take to be successful in that path. Most, 79.3%, of seniors agree they were given enough guidance and 78.4% agreed they were given enough information as they selected their future path. Lower percentages of respondents agreed

that they were provided enough opportunity to mentor people in their career/workforce path (64.9%) (See Table 8).

Table 8. Guiding the Post-High School Career/Workforce Path Decision

Question	Percent Respondents Agree or Strongly Agree
I am confident in my Career/Workforce Path	86.8%
I know the steps that I need to take to be successful in my Career/Workforce Path	83.16%
I had sufficient guidance from adults to help me evaluate my Career/Workforce Path	79.3%
I was provided enough information to select the path that is right for me	78.4%
I was provided enough opportunity to mentor people in my Career/Workforce Path	64.9%

N=393

Discussion/Conclusions

This research presents some interesting challenges and issues in education and workforce preparation. With rising college costs and high percentages of college students not successfully completing degree programs, maybe it's time to reevaluate the push for a traditional college education as the only path towards success. The demand for skilled trades and technical skills has created challenging and viable pathways to success for young adults through trade schools, military, and the workforce-directly.

When evaluating workforce competencies, based on the Ohio Workforce and Career Readiness Seal Criteria, high school seniors identify personal skills such as work ethic, reliability, and professionalism as their strongest traits. Although the list of skills analyzed are "soft skills," (as a group), they ranked their skills in the more applied areas such as digital technology, quantitative skills, and written/oral communication as their weakest. It is these same applied skills and other more technical skills that recent surveys of employers have identified as being most in-demand.

By law, in the State of Ohio, each school district is required to have a “Business Advisory Council.” These local groups are designed to involve and engage business leaders to improve student learning experiences in their local school districts. Not only can this group provide curricular input, helping schools align educational offerings to local demands for current and emerging careers, but they can also assist with career education opportunities such as guest speakers, career fairs, and career mentoring programs.

In addition to Business Advisory Councils, the State of Ohio has a “Career Connections Initiative” designed to help students develop career readiness plans for their future. A collaborative of Ohio Workforce Transition, Higher Ed, Ohio Means Jobs, and Ohio Department of Education, they have imbedded career awareness components into existing contents standards in the State of Ohio. In addition, they encourage local school districts to develop initiatives and activities to further engage students to explore career options (internships, mentorships, job shadowing).

College curriculum and training should also be cognizant that the programs and degree options match local demand for potential students. Program content should continue to be evaluated to ensure they align with the skills today’s employers are seeking.

Western Ohio Graduating Seniors indicate a number of factors are impacting their post-high school path (college, trade school, workforce, or military). Job opportunities and earning potential were identified as strong factors in the participant’s decision. Family members also play an important role in the career and workforce planning process for young adults as they evaluate the viability and their “fit” for that particular path/option. College is the predominant path for local high school graduates, with approximately 75 to 80% of high school students selected that path. This study reveals that the choice is based primarily on the programs offered, the location, and cost as factors. Only 4.2% of western Ohio High School graduates are pursuing training at trade schools after graduation. Based on the current employment demand and projected growth in future job openings, more should be done to promote and encourage trade school training as a viable option for area young adults.

Graduating High School Seniors report relatively high confidence in their post-high school career/workforce path chosen and most indicate they were given ample information and guidance to make their decision. However, approximately 20% of respondents did not indicate adequate guidance and support. When asked if they were given enough opportunity to mentor individuals

in their chosen workforce path, less than 65% agreed. Community organizations, schools, and local employers can support school districts and parents in these roles to help ensure all children leave high school confident in their decision and with enough guidance, information, and mentoring opportunities.

“Where are you going to college?”

At holiday gatherings, community events, and general interactions with high school students, how many times do we hear the question posed to every high school senior: “Where are you going to college?” There is tremendous pressure in some communities that all children should attend a four-year university. It can be so extreme that parents feel obligated to justify why their son/daughter isn’t going away to a prestigious college, possibly feeling like they either failed their child or their child isn’t living up to community or family expectations.

Some young people find success attending the four-year college of their choice. Some find success in the world of work, farming, military, or learning a trade. Some start a business, enter the military, and some defer college until later in life. Roughly half of those choosing to enroll in college, right after high school, do not complete their degree in six years. Maybe, there is too much pressure to attend college and every high school graduate shouldn’t be expected to attend college?

Our high schools all take great pride in the percentage of high school students going to college. Watch how high school seniors are recognized at community events and graduation ceremonies:

- “John was High Honor Roll all 4 years in High School, is attending Prestigious University majoring in Engineering and was awarded Scholarships from X, Y, and Z.”
- “Beth was Academic-All Ohio in Basketball, has a full-scholarship to attend Outstanding University. She plans to major in Health and then go onto Med School.”
- “Mark is entering the workforce.”
- “Sarah is entering the military.”

What if we equally celebrated all paths to success?

- “Mark completed a vocational training program through Local Vocational School and has accepted a position with Respected Company. He will continue his training, on-the-job, to become a certified welder.”
- “Sarah volunteered for two years with the local hospital through high school. She will be serving in the Marines, getting trained as a medic and first-responder and eventually pursue nursing as a long-term goal.”

What if, instead of asking, “Where are you going to college?”... we asked, “What are you thinking about doing after high school?” We can send a totally different message to that high school senior. Attending a Four-Year University is still an excellent option for many students to further their education and prepare for future careers. But...there are also other excellent opportunities for young people down other paths. Let’s send a message to our young people that we support and encourage those taking different routes to their goals.

References

- Bandura, A., Barbaranelli, C., Caprara, G.V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, 72, 187-206.
- Bennett, J.V. (2007). Work-based learning and social support: Relative influences on highschool seniors’ occupational engagement orientations. *Career and Technical Education Research*, 32(3), pp. 187-214.
- Bridging Ohio’s Workforce Gap (2020). Assessed from: [Bridging-Ohios-Workforce-Gap-Attainment-Plan-August-2020.pdf](https://www.competetocompeteohio.org/Attainment-Plan-August-2020.pdf) (completetocompeteohio.org)
- Carpenter, P., and Foster, B. (1977). The career decisions of student teachers. *Educ. Res. Pers.* 4, 23–33.
- Deloitte (2018). *2018 Skills Gap in Manufacturing Study*. Assessed from: <https://www2.deloitte.com/us/en/pages/manufacturing/articles/future-of-manufacturing-skills-gap-study.html>
- Educationdata.org (2020). *Student Loan by State*. Assessed from: <https://educationdata.org/student-loan-debt-by-state#Ohio>

- Homan, G., Hedrick, J, and Light, M. (2019). *Measuring High School Students Workforce Competencies*. Aurco Journal, 2019.
- Horn, M. & Moesta, B. (2020). *Not Every Student Should Go to College and That's OK*. Assessed from: <https://www.edweek.org/teaching-learning/opinion-not-every-student-should-go-to-college-and-thats-ok/2020/03>
- Johnson, M., & Nepal, B. P. (2019, June), *Board 76: Bridging the Workforce Skills Gap in High Value Manufacturing through Continuing Education* Paper presented at 2019 ASEE Annual Conference & Exposition , Tampa, Florida. 10.18260/1-2—32423
- Kazi, A.S., Akhlaq, A. (2017). Factors Affecting Students' Career Choice. *Journal of Research and Reflections in Education* December 2017, Vol., No.2, pp 187-196
- Lending Tree (2019). "A Look at the Shocking Student Loan Debt Statistics for 2019." *Student Loan Hero*. February 4, 2019. Accessed from: <https://studentloanhero.com/student-loan-debt-statistics/>.
- Moore, N., Clark, L., Neary, S., & Blake, H. (2021). 'Crucial impacts on career choices: Research to understand the influences on young people's choices in primary and secondary schools: Final report'. Derby: University of Derby
- National Association of Colleges and Employers (2020). *Key Attributes Employers Want to See on Students' Resumes*. Assessed from: <https://www.nacweb.org/talent-acquisition/candidate-selection/key-attributes-employers-want-to-see-on-students-resumes/>
- National Center for Education Statistics (2020). *Post High School Educational Statistics*. Assessed from: <https://nces.ed.gov/surveys/ctes/postsec.asp>
- National Student Clearinghouse Research Center (2018). *Completing College – National, 2018*. Assessed from: <https://nscresearchcenter.org/signaturereport16/>
- Ohio Governor's Office of Workforce Transition (2018). *Ohio Workforce Transition Strategies for 2018 and Beyond*. Assessed from: https://workforce.ohio.gov/wps/wcm/connect/gov/a1b6ffbf-58b7-462e-993f-ad1a8dee9201/Workforce+2_0+September+18.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1H
- Ruppel-Shell, E. (2018). *College may not be worth it anymore*. *New York Times*, 5/16/2018.

Snyder, Scott. "Talent, Not Technology, Is the Key to Success in a Digital Future." World Economic Forum. January 11, 2019. Assessed from: <https://www.weforum.org/agenda/2019/01/talent-not-technology-is-the-key-to-success-in-a-digital-future/>.