# Parental Perceptions of Construction Careers: Recommendations for Promotion & Marketing of the Construction Industry

## **Executive Summary**

This project, through the data collected and analysis of existing research, sought to provide guidance that will enable NAHB members and HBA staff to reach out to parents/guardians and influencers to shift perceptions and highlight the benefits of a career in construction. It should be noted that in many cases this research supports existing information already reported on this topic.

The data collected here represents the perceptions of over 1,000 parents of high school-aged students from across the United States. These parents were asked various questions about career choices for their children in general as well as specific to the construction industry.

#### Key themes identified

- Although it is not the most encouraged career path, 36% of parents would encourage their children to pursue construction and less than 15% would discourage it.
  - The image of the industry is not as bad as many believe or have been previously reported.
- Salaries matter but are not as important as work-life balance, job security, and opportunities to advance (all were "Important" but salary had significantly fewer "Very Important" responses).
  - Messaging about money is important but should just be a teaser to read more about job security, career paths, and formal education/training.
  - Construction companies and the industry must be able to show the career path and how one position transitions to another as workers gain experience.
- Parents place a very high value on education <u>and</u> parents who say they would encourage their children to pursue construction value education even more highly.
  - Hiring from and supporting career & technical schools and community colleges should be prioritized.
- Jobs/Internships/work experience are the best ways to attract students.
  - Some insurers will not cover teenagers on a job site this has to change.
  - Companies should make part-time roles an integral part of their organizations.
- After parents, teachers/educators and other trusted adults (i.e. coaches) are the most influential and trusted sources for career information.
  - Are the current industry professionals talking to their friends and others about it?
  - o Industry professionals should be actively engaging with youth sports and activities (coaching, mentoring, etc.) not just sponsoring teams.
- Although the internet is the most common place to seek career information, people don't trust it.
  - An internet presence is a must for construction career information, but it shouldn't stand alone and needs to be directed to reputable sites.

## Additional positive messaging that can be used beyond salaries and job outlook

- Construction careers have training and education (that is readily available).
  - o Partnerships with technical and community colleges should be explored
- Focus on what the job actually does to be as realistic/hands-on as possible.

- Wherever possible messaging should include hands-on experiences/activities.
- o Instructions for different types of activities should be developed and shared.
- Messaging should be directed at parents and students but probably has to be different for each group.
  - Educators/counselors are also important targets as they are trusted but often know little about and have negative perceptions of construction careers.

#### Messaging that should not be used

- On the Job Training (OTJ) is likely to negatively impact perceptions, particularly of parents.
- Messaging focused only on students in vocational/technical programs will miss a lot of potential students.
  - Students taking vocational/technical classes or not in HS are not affected by whether parents would encourage a career in construction.
- "Social Justice" and "Community Engagement" mattered for some but could push others away.
- Traditional TV commercials or content is unlikely to make a difference.
- Youtube and social media are not very influential or trusted. They should not be avoided but must be strategically linked or push users/viewers to trusted sites and content.
  - Social media is particularly ineffective for boys.

#### Introduction

Construction is facing a growing workforce shortage; the industry must increase efforts to recruit and train the next generation of construction skilled trades professionals. However, the industry faces the challenge of long-standing stereotypes and negative perceptions, especially among parents concerned about their children and their career plans.

Opinions about how to address the workforce shortage abound, unfortunately empirical research is limited, particularly as it relates to careers in construction specifically. In order to provide grounded recommendations to address the workforce shortage in construction, this project collected data in two forms. An environmental scan and literature review were conducted to identify existing empirical research on the subject and secondly, data was collected directly from parents of high school-aged students, to explore their perceptions of career decision-making and influences on their children.

Beyond those deliverables, this project sought to address the following questions related to what and how messaging can attract more of the rising generation to the construction workforce:

- What messaging is most likely to resonate?
- How do we shift perceptions about construction careers?
- What are effective interventions and/or experiences that can lead to careers in construction?
- What will be effective influencers with parents?
- How can positive attitudes about careers in construction be fostered?
- How old are kids when career decisions are being made?

The balance of this report provides a detailed analysis of the data collected and responses to these questions.

#### Methods

Data collected for this project occurred through a web-based survey taken by parents of high school-aged students. Parents were accessed through the Parent-Teacher Associations (PTAs). Although not all individual schools offered vocational and technical (vo/tech) education classes, only school districts that had vo/tech were included in the solicitation to participate.

In order to gain a more representative sample, data were sought from various metro areas. However, because participation was entirely voluntary, responses from each area varied. Initially, only four metro areas (Atlanta, Chicago, Dallas-Fort Worth, Los Angeles) were solicited. After low response rates two additional metro areas were added (Washington DC and New York City). After filtering, a total of 1022 surveys were used for analysis. Table 1 displays the distribution of survey responses. It should be noted that PTAs were offered an incentive of \$5 for each completed survey.

Table 1. Data Collection Locations and Counts

Location	<b>Total Students</b>	% of Total	# of Schools
Atlanta, Georgia	64	6%	3
Chicago, Illinois	5	1%	1
Washington, District of	375	37%	5
Columbia			
Dallas Fort Worth, Texas	430	42%	7
Los Angles, California	95	9%	3
New York City, New York	53	5%	1

## **Analysis**

The following are the results of the analysis of the data collected. Discussion of these results and their implications as they relate to the research questions are provided in the Discussion section.

- n=1022 students represented
  - o 30% 8<sup>th</sup>-9<sup>th</sup> grade
  - o 23% 10<sup>th</sup> grade
  - o 25% 11<sup>th</sup> grade
  - o 20% 12<sup>th</sup> grade
  - o 47% Male
  - o 44% Female

- o 9% No Response
  - Male children are more likely to be encouraged to enter the construction industry
  - Female children are less likely to be encouraged to enter the construction industry
- 22% had a parent who has or is working in construction
  - 18% Homebuilding
  - 17% CM/GC
  - 17% General Labor
  - No other above 8%
- o 53% (425) attend a school that offers vo/tech classes
  - 31% (132/425) have taken vo/tech classes
- o 67% (279/415) would take vo/tech classes if offered at their school

There was no association between students taking shop classes and parents encouraging them to consider construction.

• What do parents believe their children will value in a career (1-4 scale)

Factor	"Important" or "Very Important"	Average
Salary	89%	3.22
Work life Balance	87%	3.44
Job Security	86%	3.35
Opportunity to Advance	85%	3.32
Sustainability	68%	2.98
Flexible Hours	50%	2.52
Location	49%	2.49
Social Justice	43%	2.49
Community	43%	2.43
Engagement		

- What are Parent's educational expectations:
  - 99% of children are expected to complete some type of schooling beyond HS
    - Parents who would encourage construction careers have higher expectations regarding completion of trade school, 2-year, and 4-year degree programs.
  - 93% of parents believe additional education/higher education is "important" or "very important."
  - A parent's level of education does not have a significant effect on whether they will encourage their child to pursue construction.

Parents would encourage and discourage the following careers:

Career	Encourage	Discourage	
IT/Computers	72%	2%	
Engineering	68%	2%	
Health Care	59%	7%	
Education	49%	16%	
Government	47%	15%	
Radio/TV/Film	45%	17%	
Finance/Accounting	41%	24%	
Construction	36%	12%	
Real Estate	35%	16%	
Manufacturing	34%	11%	
Agriculture	29%	15%	
Service Industry	21%	38%	

- Parent who do/have worked in the construction industry are more likely to encourage their child to enter the construction industry.
  - Of the 118 parents who said they would discourage a career in construction, only 19 of those had/work in construction.

• Influencers on student's career path decisions:

Source	Average	"Influential" or "Very Influential"
Parents	3.0	71%
Teachers	2.49	47%
Friends	2.46	45%
Coaches or other trusted adults	2.43	45%
Extended Family	2.13	30%
Social media	2.09	30%
Other internet sources	2.02	23%
Counselors	1.94	22%
Youtube	1.91	22%
Television	1.68	12%

- Parents who would encourage construction indicated coaches and other trusted adults were more influential than parents who would not encourage construction.
- Male students are less influenced by teachers, counselors, social media, and TV than female students (The influence of social media is statistically significant).

• Sources of information about career paths that parents trust:

Source	Average	"Trustworthy" or "very trustworthy"
Family	3.33	43%
Teachers/Educators	3.26	38%
Friends	3.05	30%
Websites	2.74	19%
Recruiters	2.66	22%
Billboards	2.42	27%
Email	2.37	19%
Text message	2.36	26%
Television commercials	2.34	22%
Direct mail	2.31	20%
Social media	2.20	17%

• Sources parents go for career information:

Source	Percent	Count
Internet	49%	504
Friends	20%	205
Network	19%	197
Family	15%	156
School	13%	131
Counselors	10%	99
Personal Experience	7%	72
Colleges	7%	67
Social Media	6%	59
Teachers	4%	37

- 45% of students participate in career exploration activities.
- Most impactful types of career exploration activities:

Activity	%	Count
Part-time job/internship/actual experience	31%	228
School Classes/teachers	16%	115
Hands on experience	12%	85
Information interviews/talking/networking	10%	72
Shadowing	7%	53
Speakers/presentations	7%	52
Career/education fairs	7%	48
Aptitude/personality testing	6%	41
Summer camps/Programs	5%	37
Site/Office/Field Trips	5%	36

- Parents who would encourage children to pursue construction placed a higher value than the other parents on these activities (the difference here is not statistically significant):
  - Hands-on Experiences
  - Speakers/presentations
  - Information interviews
- 67% of parents are "confident" or "very confident" in helping their children make informed career decisions
- 36-56% of parents would encourage their children to pursue a career in construction
- 12-15% of parents would discourage their children from pursuing a career in construction
- Parents indicated they would encourage the following specific construction careers:

<b>Construction Career</b>	%	Count
Construction Manager	45%	459
Electrician	42%	426
Plumber	28%	287
Carpenter	27%	273
No, would not encourage any	15%	158
Mason	15%	149
Painter	13%	129
Steel worker	12%	119
Concrete worker	8%	84
Roofer	6%	60

# **Key Findings/Answers to Questions Posed**

Considering the specific questions posed, the authors offer the following responses to each:

- What messaging is most likely to resonate?
  - Messaging to parents and children is equally important.
  - Friend and family voices are the most influential and sought out for career information.
    - Those in the industry have to be more vocal and spread the positive word.
  - Salary/pay matters, but work-life balance, opportunities to advance, and job security are equally important.
  - A web presence is necessary. However due to a low level of trust, the internet and social media content has to be carefully curated and should direct to trustworthy sites, ideally professional organizations or schools.

- As a standalone strategy, a web presence is unlikely to impact the issue.
- Career days, camps, field trips, etc. are effective
- How do we shift perceptions about construction careers?
  - Perceptions are better than reported in previous studies
  - Focus on the formal education and/or training needed for construction careers
  - Focus on job security; opportunities to advance (career path) and work-life balance are critical
  - Current industry professionals have to talk about their careers, they will be the best and most powerful agents of change in perceptions.
    - Actively engaging in their communities (coaching youth sports/activities, not just sponsoring teams) should have a powerful effect.
- What are effective interventions and/or experiences that can lead to careers in construction?
  - Internships and part-time jobs, where students experience the work first hand are the best strategies.
    - Part-time jobs for 16-17 year old students should be a priority
  - Engaging with schools and teachers is effective, particularly when hands-on activities are used, and highly trusted.
    - Strategies for professional organizations to develop relationships with districts, schools, and teachers are needed.
  - Job shadows, presentations, career fairs, camps, and site visits can all be effective
    as well, and will increase in effectiveness when they occur through or in
    conjunction with schools.
- What will be effective influencers with parents?
  - A large proportion of parents would encourage a career in construction (36%-53%), so there is a receptive audience.
    - Only 15% of parents would discourage a career in construction.
  - Education expectations are high. Promotion of the education and training necessary for careers in construction matters.
    - Parents who would encourage a career in construction have even higher expectations than other parents that their children will complete trade school, a 2, or a 4-year degree program.
  - Voices from friends and family are the most influential and sought out.
  - Competitive Salary/pay matters, but good work-life balance, opportunities to advance, and job security are more important in selecting a career.
- How can positive attitudes about careers in construction be fostered?
  - Family, teachers, and friends are the most influential and where most seek career information. Deliberate community outreach, to engage with schools and within communities is likely to have the greatest impact.
    - Strategies for engagement with teachers and schools have to be developed and executed
    - Industry professionals have to not only talk about the industry and their careers, but they have to engage in their communities. Sponsoring the

local little league or school band is not enough, construction professionals need to engage with these groups and the students in them.

- For parents who would encourage a career in construction, coaches and trusted adults are even more influential.
- Parents and students may not ask, but they will listen.
- How old are students when career decisions are being made?
  - By 11<sup>th</sup> and 12<sup>th</sup> grade, career decisions are being researched, but it is not clear if decisions are or have been made at that point.
    - No parents responded that they were not seeking career information yet for students in 11<sup>th</sup> or 12<sup>th</sup> grade. A small percentage (less than 1%) indicated they were not thinking about it yet in 10<sup>th</sup> grade and a slightly higher number (but still less than 1%) indicated they were not thinking about it in 9<sup>th</sup> grade.
  - o Students in all high school grades are considering and researching careers.
    - It is likely important to "plant the seed" for a career in construction before 9<sup>th</sup> grade.

# **Environmental Scan/Literature Review**

Although little if any research could be found specifically related to careers in construction, a fair amount of formal and informal research has been done on student career choice and the influencers thereof. The studies identified collectively emphasize the multifaceted nature of parental influence on educational and career choices.

Both Jobs for Future (2024a) and Bulman (2004) explore how parents' cultural backgrounds significantly shape their decisions when selecting schools for their children. These studies, based on in-depth interviews with parents of ninth-grade students, reveal that cultural factors extend beyond financial and informational resources. Parents' past educational experiences and religious beliefs are highlighted as crucial elements influencing school choices. These findings underscore the importance of considering cultural contexts in educational decision-making to better support diverse family backgrounds. While the data collected by the current study did not explore school selection, it did not reveal any differences based on parent's education.

Kilpatrick et al. (2023) conducted a study focusing on the empowerment of rural influencers—such as families, teachers, and employers—through Community-Based Participatory Research (CBPR). This approach engages community members collaboratively, addressing specific geographic and demographic contexts. The study's key findings emphasize the importance of community ownership, flexibility, and authenticity in informing education and career pathways. The current study's findings support Kilpatrick et al.'s (2023) results showing the influence and trust in family and teachers in regard to career choice.

Oostdam and Hooge (2013) emphasize the significant positive impact of parental involvement on children's learning motivation, well-being, and academic outcomes. They outline a

framework defining different types of parental involvement: social, formal, and educational partnerships, which often overlap and contribute to a supportive learning environment. Effective educational partnerships require mutual trust, quality communication, and recognition of diverse parental backgrounds. They call for schools to develop clear, inclusive policies to foster collaborative relationships with parents, balancing professional autonomy with openness. The current study's results suggest that Oostdam and Hooge (2013) findings relating to parental involvement should extend to industry professionals developing educational partnerships as an effective way to portray the construction industry positively and attract more students.

Sonnert (2009) tested the 'Role-model' and 'Opportunity-structure' hypotheses to explore career choices in science and engineering, particularly for women. Using sociological theory, the study found mixed results: female high school students were positively influenced by female role models, while parents with higher education levels were more likely to be named as influencers. The findings suggest that career choice is influenced by multiple factors, including cultural patterns, personal values, job security, peer pressure, teacher inspiration, and self-confidence, highlighting the complex interplay of influences on educational aspirations. The current study support Sonnert's (2009) findings in part. Job security and teacher inspiration are powerful variables in career choice and should be leveraged.

Al-Baharani et al. (2020) examined career aspiration differences between male and female adolescents, focusing on grade point average (GPA) and parents' educational levels. The study indicates that higher GPAs and parents' higher education levels lead to stronger career aspirations. These findings highlight the importance of considering contextual variables, such as academic performance and parental education, in designing interventions to bridge the gender gap and support teenagers' career development. Muenks et al. (2020) explored how gender stereotypes influence parents' perceptions of their children's abilities in spatial visualization, mental manipulation, and navigation. Their study reveals that parents of young men tend to perceive higher abilities in these areas compared to parents of young women, despite similar actual abilities. This perception influences parents to encourage their sons more toward STEM careers. These findings suggest that addressing gender stereotypes and raising awareness about them could help increase female participation in STEM fields. Although the current study did not find differences as they relate to parents' education in other perceptions, parents were more likely to encourage their sons to pursue a career in construction than their daughters, suggesting gender stereotypes persist and should be considered.

A blog by Hirepaths (2021) emphasizes the need to shift the focus from asking children what they want to be when they grow up to discussing the problems they enjoy solving and activities they like. Encouraging kids to explore various career fields, emphasizing diverse role models, and connecting them with professionals can help in discovering their interests and skills. This approach aligns with the findings from the State of the Future US Workforce report (2024), which highlights the need for personalized pathways that match students' aptitudes to education and careers. The report identifies a significant gap between aptitude and interest and recommends collaborative planning, interdisciplinary teaching, and industry-recognized certifications to address this. As with Hirpaths (2021), the results of this study indicate that

experience with jobs and people who work in construction are important in career path selection and would inherently provide the personalized pathways recommended.

Jobs for Future (2024b) investigates the perceptions of adults towards nontraditional educational pathways beyond the high school-to-college-to-workforce trajectory. The report recommends normalizing non-degree pathways such as apprenticeships, micro-credentials, boot camps, and technical education, integrating them into mainstream discourse. Similarly, a blog from 2024 discusses the growing interest in non-degree options among students and parents, emphasizing the need to inform families about alternative pathways early, preferably starting in middle school. The need to formalize or create micro-credentials is highlighted by the findings of this study as parents placed a very high value on formal education.

This concept is further discussed by "Tearing down the paper ceiling" blog by STARs (2022) and Jobs for the Future (2023), which discuss the barriers faced by individuals without college degrees in obtaining promotions and employment opportunities and the need for nondegree pathways. It advocates for prioritizing skills over credentials, thereby creating more equitable job opportunities. This perspective is supported by the State of the Future US Workforce report, which also calls for recognizing and promoting alternative skills and certifications. The Career Technical Education (CTE) programs could play an instrumental role in providing alternative skills to individuals who are not drawn toward traditional college degrees. Because parents place such a high value on formal education, this sort of shift to micro-credentials and certificates could be an important strategy for the construction industry to shift away from on the job training (OTJ).

CareerTech.org (2022) reports that CTE programs offer real-world knowledge, skills, dual enrollment opportunities, industry-recognized credentials, and work-based learning experiences. All of which resonate with the results of the current study. However, CTE programs face challenges due to limited awareness and outdated perceptions. This is echoed in the findings of Cellini (2006), which suggest that Tech-Prep programs effectively facilitate high school completion and encourage enrollment in two-year colleges, though they may divert students from four-year colleges. According to Dougherty and Lombardi (2016) CTE needs to emphasize the importance of balancing general and specific educational training to enhance college and career readiness. Interestingly, multiple studies suggest the need for CTE providers to shift in how they reach students (Ecton, 2023), much like construction recognizes the need to shift perceptions about construction careers, this suggests construction is not alone in its workforce needs. This is an important consideration as it suggests increased competition.

As might be expected, the results of this study mostly agreed with the findings reported in the environmental scan, particularly as it relates to the influence of parents/family and teachers on career choices. As well as the importance of providing real experiences and the value of formal education or training. This study however did not find relationships between parental perceptions about career paths and their educational attainment.

While other variables reported as relevant in the scan may play a role, the data collected by this study does not provide insight into their accuracy.

# **Simplified Surveys**

## Survey for 5-10 year olds

- 1. What grade in school are you?
  - a.  $1-1^{st}$  grade; 2-2nd grade; 3-3rd grade; 4-4th grade; 5-5th grade
- 2. Do any of your parents work in construction?
  - a. 1 Yes; 2 No
- 3. What activities outside of class do you participate in?
- 4. What do you spend the most time doing outside of school?
- 5. Do you think construction is interesting?
  - a. 1 Yes; 2 No
- 6. How much do you know about construction?
  - a. 4 I know a lot; 3 I know some; 2 I know a little; 1 I don't know anything
- 7. If you wanted to learn more about construction, what would you do? (open ended)
- 8. Do you have a smartphone?
  - a. 1 Yes; 2 No
- 9. Do you use social media?
  - a. 1 Yes; 2 No
- 10. Do you use the internet?
  - a. 1 Yes; 2 No

## Survey for 10-14 year olds

- 1. What grade in school are you?
  - a. 1 6th grade; 2 7th grade; 3 8th grade; 4 9th grade
- 2. Do any of your parents work in construction?
  - a. 1 Yes: 2 No
- 3. What activities outside of classes do you participate in?
- 4. What do you spend the most time doing outside of school?
- 5. What do you want to do when you grow up?
- 6. Do you have any interest in construction?
  - a. 4 Yes, a lot; 3 Yes, some; 2 Yes, a little; 1 No
- 7. How much do you know about construction?
  - a. 4 I know a lot; 3 I know some; 2 I know a little; 1 I don't know anything
- 8. If you wanted to learn more about construction, what would you do to get information? (open ended)
- 9. Do you have a smartphone?
  - a. 1 Yes; 2 No
- 10. Do you use social media?
  - a. 1 Yes; 2 No
    - i. If yes, which sites

#### In Person Questions

- 1. What do you plan to do after you graduate high school?
- 2. How would you learn more about a career you're interested in (where would you go for information)?
- 3. Have you thought about working in construction? Why or why not?

# **Complete Survey for Parents**

- 1. How many children do you have attending High School, and what grade in school are they?
- 2. What is your highest level of education
  - a. What is your child's/children's other parent's highest level of education
  - b. If there is another parental figure in your child's/children's life, what is their highest level of education?
- 3. Which industry do you currently work in, and what is your position?
  - a. Which industry does your child's/children's other parent currently work in, and what is their position?
  - b. If there is another parental figure in your child's/children's life, what industry do they work in and what is their position?
- 4. Have you or your child's/children's other parents ever worked in the construction industry?
  - a. Please briefly describe the work you or your child's/children's other parent did in construction
- 5. Does your child/Children's school have a shop class or other vocational/technical training?
  - a. For your children whose school has vocational/technical training, have they taken one of these classes?
  - b. For your child/children who have taken a shop class or vocational/technical training, please indicate why they took it:
  - c. For your child/children who have <u>not</u> taken a shop class or vocational/technical training, please indicate why not:
  - d. If your child's/children's school offered shop class or other vocational/technical training would you be interested in your child/children enrolling?
- 6. Does your child/children participate in any of these extra-curricular activities? (Athletics; Debate/Academic Decathlon; FFA or 4-H; Skills USA or TSA; Boy or Girl Scouts; Yearbook or News; Drama or Theater; Part time job)
- 7. Does your child participate in any other extra-curricular activity(s) that were not listed in the last question?
- 8. In thinking about your child's/children's future career please indicate the importance you place on each of the following (1 = Not important, 2 = Somewhat important, 3 = important, 4 = very important)
  - a. Salary/wages; Flexible work schedule; Opportunity for promotion/advancement; Job security; Work location; Community engagement/service; Work life balance; Sustainability; Social justice

- 9. What is the highest level of education you think your child/children will achieve?
  - a. Less than H.S.; H.S. Graduate; Some college; Technical school; 2 year degree; 4 year degree; Masters Degree or Higher
- 10. How important do you think higher education (training or education beyond high school) will be for your child? (1 = Not important, 2 = Somewhat important, 3 = important, 4 = very important)
- 11. How much freedom should a parent give their child in career exploration and choice? (1=none; 5=about half and half; 10=entirely free).
- 12. Please indicate if you would <u>encourage</u> your child/children to pursue any of these industries:
  - Agriculture; Arts; Business/Finance/Accounting; Construction; Education;
     Engineering; Government; Health Care; Information Technology/Computers;
     Manufacturing; Radio, TV, Film, Internet; Real Estate; Service Industry; Other
- 13. Please tell us what "other" industries you would encourage your child/children to pursue?
- 14. Please indicate if you would <u>discourage</u> your child/children from pursuing any of these industries:
  - a. Agriculture; Arts; Business/Finance/Accounting; Construction; Education; Engineering; Government; Health Care; Information Technology/Computers; Manufacturing; Radio, TV, Film, Internet; Real Estate; Service Industry; Other
- 15. Please tell us what "other" industries you would <u>discourage</u> your child/children from pursuing?
- 16. How influential are the following in your child/children's choice of career path? (1 = Not at all influential, 5 = Very influential)
  - a. Parents; Extended Family; Teachers; Friends; Coaches or other trusted adults; Social media; Counselors; Television; Youtube; Other internet sources; Other
  - b. Please indicate what "other internet sources" influence your child's/children's choice of career path:
  - c. Please indicate what "other" sources influence your child's/children's choice of career path:
- 17. What sources do you most commonly use to seek information about potential career opportunities for your child/children, and why do you use them? (open ended question)
- 18. How confident do you feel in helping your child make informed career choices? (Very Confident, Confident, Neutral, Somewhat confident, Not confident)
- 19. In general, please indicate your level of trust in the following sources for career information? (1=Not at all trustworthy; 2=Sometimes trustworthy; 3=Trustworthy; 4=Very trustworthy)
  - a. Social media; Direct mail; Email; Text message; Television commercials; Billboards; Websites; Friends; Family; Teachers/Educators; Recruiters
- 20. Does your child/children participate in any career exploration activities? (Yes, No)
- 21. What career exploration activities do they participate in? (open ended question)
- 22. What types of career exploration activities do you think are most impactful, and why? (open ended question)

- 23. Please indicate which, if any, of the following construction careers you would *encourage* your child to pursue?
  - a. Electrician; Plumber; Carpenter; Mason; Painter; Roofer; Steel Worker; Concrete Worker; Construction Manager.
- 24. To what extent do you think your child's interests and hobbies will influence their future career choice? (Extremely likely; Somewhat likely; Neither likely nor unlikely; somewhat unlikely; extremely unlikely)
- 25. How confident are you that your child's school provides adequate support and guidance for career development?
- 26. Are there other resources or assistance you feel would be helpful in supporting your child's career exploration and decision-making process?

## References

Association for Career and Technical Education (2024) Leveraging Career Development Services. Retrieved from: <a href="https://www.acteonline.org/publications/leveraging-career-development-services/">https://www.acteonline.org/publications/leveraging-career-development-services/</a>

Al-Bahrani, M. A., Allawati, S. M., Abu Shindi, Y. A., & Bakkar, B. S. (2020). Career aspiration and related contextual variables. International Journal of Adolescence and Youth, 25(1), 703-711.

Bulman, R. C. (2004). School-Choice Stories: The Role of Culture. Sociological Inquiry., 74(4), 492519.

CareerTech.org (2022). "The Value and Promise of Career Technical Education." Retrieved from < <a href="https://careertech.org/wpcontent/uploads/sites/default/files/files/resources/The Value Promise Career Technical Education 2017.pdf">https://careertech.org/wpcontent/uploads/sites/default/files/files/resources/The Value Promise Career Technical Education 2017.pdf</a>

Cellini, S. R. (2006). Smoothing the transition to college? The effect of Tech-Prep programs on educational attainment. Economics of education review, 25(4), 394-411.

Dougherty, S. M., & Lombardi, A. R. (2016). From vocational education to career readiness: The ongoing work of linking education and the labor market. Review of Research in Education, 40(1), 326-355.

Ecton, W.G. (2023) Framing Parents' Attitudes Toward Career and Technical Education. Education Policy Analysis Archives, 31(98).

Francis, V., & Prosser, A. (2013). Exploring Vocational Guidance and Gender in Construction. *International Journal of Construction Education and Research*, *10*(1), 39–57. https://doi.org/10.1080/15578771.2012.744371

Hirepaths (2021). "Career Exploration: How to Encourage Kids of All Ages." Retrieved from < <a href="https://hirepaths.com/blog/2021/10/04/career-exploration-how-to-encourage-kids-of-all-ages">https://hirepaths.com/blog/2021/10/04/career-exploration-how-to-encourage-kids-of-all-ages</a> Jobs for Future (2024a). "Success Redefined." Retrieved from <a href="https://www.iff.org/idea/success-redefined/">https://www.iff.org/idea/success-redefined/</a>

Jobs for Future (2024b). "Beyond Degrees." Retrieved from < <a href="https://www.jff.org/idea/beyond-degrees-2/">https://www.jff.org/idea/beyond-degrees-2/</a>>

Kilpatrick, S., Fischer, S., Woodroffe, J., Barnes, N., Groves, O., & Austin, K. (2023). A whole-of-rural-community approach to supporting education and career pathway choice. Australian and International Journal of Rural Education, 33(3), 82-102.

Muenks, K., Peterson, E. G., Green, A. E., Kolvoord, R. A., & Uttal, D. H. (2020). Parents' beliefs about high school students' spatial abilities: Gender differences and associations with parent encouragement to pursue a STEM career and students' STEM career intentions. Sex Roles, 82(9), 570-583.

Oostdam, R., & Hooge, E. (2013). Making the difference with active parenting; forming educational partnerships between parents and schools. European Journal of Psychology of Education, 28, 337-351.

Sonnert, G. (2009). Parents who influence their children to become scientists: Effects of gender and parental education. Social studies of science, 39(6), 927-941.

STARs (2022). "The Paper Ceiling." Retrieved from < <a href="https://www.tearthepaperceiling.org/the-paper-ceiling">https://www.tearthepaperceiling.org/the-paper-ceiling</a>>

Wilkes, J. T., Nobe, M. C., Clevenger, C. M., & Cross, J. E. (2015). Needs Assessment: Identifying and Addressing High School Counselors' Perceptions of Construction Management. *International Journal of Construction Education and Research*, 11(3), 196–217. https://doi.org/10.1080/15578771.2014.987360

YouScience (2024). "State of the Future U.S. Workforce." Retrieved from < https://resources.youscience.com/rs/806-BFU-539/images/2024\_StateoftheFutureWorkforce\_Report.pdf>