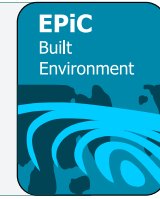




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Generation Z and the Construction Industry

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One future challenge that the construction industry will begin to face soon is the transition of a new generation of workers into the field. Older generations, who hold a tremendous amount of knowledge and experience in the field, are retiring as the newer generation, "Generation Z" are beginning their careers. This new generation of talent entering the workforce poses new challenges and opportunities for growth, as they are the largest and most diverse generation yet. This paper illustrates the challenges and opportunities this new generation and the construction industry will face, and creating new ways to attract, retain, and educate gen-z as they enter the workforce through student feedback.

Key Words: Gen-Z, Construction, Education, Industry, Workforce

Introduction

Each generation has their own set of characteristics, values and attitudes toward work, which greatly affect their place in the workforce and in society. These value and attitude differences show how they differ in their adaptation to the workplace and distinguish intragenerational variants and similarities between the generations (Benítez-Márquez et al., 2022). Several recent studies have explored generational characteristics within the workplace (Kapoor & Soloman, 2011; Andrade & Westover, 2018), and more specifically, Generation Z's role in the workforce (Bridges, 2015; Benítez-Márquez et al., 2022; Harris, 2020; Dangmei & Singh, 2016; Racolta-Paina & Irini, 2021; Gaidhani et al., 2019; Kirchmayer & Fratričová, 2020; Borg et al., 2022). Generation theory proposes that people that are brought up in the same time period will experience similar socioeconomic conditions and historical events, leading them to develop similar behaviors and attitudes towards life and the workplace (Andrade & Westover, 2018). The generations that make up most of the United States (US) are as such: "Baby Boomers," born between 1946 and 1964, "Generation X," born between 1965 and 1976, "Generation Y," also known as "Millennials," born between 1977 and 1995, and "Generation Z," born between 1996 and 2010 (Andrade & Westover, 2018; Kapoor & Soloman, 2011; Benítez-Márquez et al., 2022). When it comes to generational characteristics, the dates above are generally accepted as cut-off dates for each generation, but people born during a transition between generations can possibly fit into either generation, or even adopt traits from both (Kapoor & Soloman, 2011).

Baby Boomers are characterized as idealistic, more willing to sacrifice personally and professionally to become successful, and highly competitive; they are known to have good work ethic, networking skills, and they are more likely to respect authority and hierarchy in the workplace, however, they also have more difficulty accepting change, learning new tricks, and multi-tasking (Kapoor & Soloman, 2011). Baby Boomers stay at a job for about 8 years, so they are very loyal to their employers and tend to stay in one place the longest (Career Builder, n.d.). Generation X grew up as “latchkey kids,” and are characterized as self-reliant, independent, and skeptical of authority; they prefer working independently to teams, and are said to lack interpersonal skills, while they are good at multi-tasking and maintaining a good work-life balance (Kapoor & Soloman, 2011; Andrade & Westover, 2018). Generation X experienced their elders being laid off, which lead to an attitude of low tolerance towards bureaucracy and rules as opposed to the Baby Boomers’ loyalty to organization and structure, leading to them staying at one job on average for 5 years (Kapoor & Soloman, 2011; Career Builder, n.d.). Millennials are confident, expressive, and they prefer teamwork; they value meaning in their work and career and strives to improve the world around them with their work. They wish to see the impact of their actions and look for immediate gratification and the opportunity to improve (Kapoor & Soloman, 2011). Both Millennials and Gen-Z do not stay in a singular role or job for long, 2 years and 9 months, and 2 years and 3 months, respectively (Career Builder, n.d.). Both generations were brought up in uncertain times when it comes to the job market, and they both value personal freedom and fulfilment in their careers. Now more than ever, it is important for companies to work on and improve how they retain their employees and keep them happy and fulfilled in their careers.

As Generation Z (Gen-Z) joins the workforce, their values, behaviors, goals, and approach to work are being brought to the forefront. Gen-Z’s defining environmental factors in their upbringing have been the advancement of technology and the introduction and advancement of social and technological issues throughout the years. Gen-Z is known for being the first “digital native” generation since they have grown up in a very technological environment and have been interacting in social networks from a young age (Benítez-Márquez et al., 2022). Gen-Z is also more aware of what is going on in the world than previous generations, which leads them to a more pronounced freedom of expression and open-mindedness when it comes to understanding different groups of people (Benítez-Márquez et al., 2022). Gen-Z is said to be more impatient, dependent on technology, self-directed, and demanding than previous generations, but they are also increasingly more concerned with environmental and social issues (Dangmei & Singh, 2016). COVID-19 was a generation defining moment for Gen-Z, due to it taking place at a formative time during their coming-of-age experience and having a powerful and unforgettable emotion impact that incites feelings of vulnerability and uncertainty in the future (Villa et al., 2020). COVID-19 to Gen-Z can be compared to the way 9/11 affected Millennials, or the way the John F. Kennedy assassination affected Baby Boomers; as it likely changed Gen-Z’s outlook on the world, their careers, schooling, health, family, money, and attitudes toward the future (Villa et al., 2020). An immediate switch to virtual learning during the pandemic has also had a part in changing the way that Gen-Z learns and processes information, which may influence their transition into the workforce. This generation has grown up surrounded by a global financial crisis, terrorism, political uncertainty, and a climate crisis, but they have also been brought up in an increasingly globalized world; These factors have made an impact on how Gen-Z’s values and attitudes toward the world and the workplace have developed, by making them adaptable to, and even pursuers of, change (Benítez-Márquez et al., 2022). Gen-Z is the largest and most technologically advanced, and the most ethnically diverse compared to other generational cohorts, so research into Gen-Z’s approach to work in the construction industry is needed to advance the field and prepare this new generation to take over as older generations are retiring and taking their knowledge and experience with them (Dangmei & Singh, 2016; Gaidhani et al., 2019). In the workplace, it is expected that Gen-Z will showcase a high technology skill level, but interpersonal communication and relationship skills are being questioned; It is also expected that Gen-Z changes jobs more frequently than other generations, so

employers will need to focus more on retention efforts as well as recruitment (Benítez-Márquez et al., 2022). Gen-Z values flexibility in the workplace, and to be able to contribute directly to their employers and have a tangible impact on their success (Benítez-Márquez et al., 2022). Main ideas of Gen-Z in the workplace are as such: They are entrepreneurial, connected, value human interaction, diverse, embracing of change, and want to contribute (Harris, 2020).

Motivation for Research

Like other industries in the 21st century, the construction industry is subject to an everchanging environment that is complex and uncertain, dealing with a skills shortage and high turnover rates that are caused by an ageing population and low retention of Millennials and Gen-Z (Borg et al., 2022). The construction industry is a greying industry, and as Baby Boomers and Generation X leave, Gen-Z will soon replace them as the largest generation in the workforce. Currently, despite retiring rapidly, Baby Boomers make up about 19% of the U.S. workforce, while Generation X makes up 35.5% and Millennials make up 39.4% (Creditors Adjustment Bureau, 2020). Gen-Z is expected to make up a third of labor by 2025, highlighting the essential role they play in the further development of the industry (Gaidhani et al., 2019). To create a place for Gen-Z within the construction industry, employers need to acknowledge that Gen-Z is a unique generation with diverse values and needs in the workplace, and in order to recruit, retain, and teach this generation, new strategies and technology should be invested in to bridge generational gaps and adapt to our changing society (Gaidhani et al., 2019). Gen-Z plays an integral role in the sustainability of the construction industry, so research pertaining to their role in the industry as a unique and growing generation is helpful in identifying ways the industry can improve to retain these new employees and continue thriving as older generations leave the workforce and newer ones take their place (Gaidhani et al., 2019). This study relies on feedback from students majoring in Construction Engineering Technology and Construction Management over Gen-Z's relationship with the construction industry, ways it can grow to support the newest addition to the workforce, and how technology can bridge generational gaps to contribute to the current knowledge of Gen-Z's relationship with the construction industry.

Methodology

The study was done through assigning discussion questions to two senior level construction classes at two different universities through their respective online learning platforms, Canvas and D2L. The students were required to answer these questions for class credit but were not graded based on their answers to the discussion questions. Because they received class credit for participating in the survey, their responses were not anonymous, but for the sake of this study, students' responses are anonymous. Before being given these discussion questions, students were educated on current and future problems within the construction industry such as the labor shortage, increasing regulations, COVID-19, and the state of the workforce. Class A consisted of 50 students, and were assigned the following questions: 1) How would you explain Gen-Z to an older person at work so they would have a solid understanding of Gen-Z and what they are looking for in a career? 2) What changes are needed for construction companies to retain top talent and actionable steps to prioritize those changes? 3) How can technology help bridge the generational gap? Class B consisted of 39 students, and were assigned the following questions: 1) Where do you see the construction labor market with Gen-Z going in the future? 2) What changes do companies need to make to retain talent in today's construction market? Specifically with Gen-Z? 3) What are some ways technology helps bridge the gap from construction to the office? Every student that participated in this study was 18 and older and

majoring in construction engineering technology or a related major. The responses from the students in both classes were analyzed and evaluated on similarities in main themes and opinions of the students to quantify how popular the ideas are amongst the two sample groups. Questions 2 and 3 for each class group are similar enough to group the responses of the students, but the responses to question 1 for both classes were analyzed separately. The transition from older generations to Gen-Z in the workforce will highlight differences in approach to work, company loyalty, and work ethic and how these changes will impact the construction industry. The common opinions of these construction engineering technology students give a small look into Gen-Z's thoughts on their connection to the construction industry and the future of the industry, which will further the research of Gen-Z and how the construction industry can adapt to it through new ways of growing, educating, and operating amid new technology.

Results

Question 1 Class A

Table 1

Class A results for Question 1) How would you explain Gen-Z to an older person at work so they would have a solid understanding of Gen-Z and what they are looking for in a career?

Answer	Prevalence	Percentage of Respondents
Technologically advanced, looking for adaptation and growth	24	48%
Different in career approach: work to live, not live to work	13	26%
Looking for stable jobs with job security	5	10%
Empathetic and socially aware, but have short attention spans	4	8%
Brought up in a unique time, want to work for passion and fulfillment	15	30%
Other: Need mentors to help them grow into their careers, and they are based around inclusivity and diversity, so understanding individual motivations is important to gauge what they want in a career	3	6%

Table 1 shows the answers that Class A gave when asked the discussion question “how would you explain Gen-Z to an older person at work so they would have a solid understanding of Gen-Z and what they are looking for in a career?” The most common answer to this question, at 48%, was that Gen-Z has been brought up alongside technological advancement, so they have many advantages to working with it and can get work done more efficiently, and that they are looking for a career that will evolve and adapt alongside them and technology. Multiple responses showed that students think that Gen-Z has an advantage when it comes to old and new technology, so they can find faster and easier ways to get things done. 26% of the respondents answered that Gen-Z is not as career-oriented as previous generations, and technology has dampened their knowledge in other ways, so people are not as willing to work. Students that answered this often said that Gen-Z is not as hardworking as older generations in their eyes, and that they are not going to be as loyal to companies or their work due to an increased emphasis on the self and personal lives, so companies will need to work harder and make big changes to keep Gen-Z employees; these students also attributed the change in Gen-Z's work ethic to increased access and reliance on technology. 10% of students said that they would say Gen-Z are

looking for a stable job with job security; since they likely watched their parents experience the 2008 recession, they are weary to trust the economy and industry, and put heavy emphasis on job security. 8% of students would say that social media has had a large impact on Gen-Z and affects how they learn and share new information, transforming the way that Gen-Z processes the world around them. 30% of student answered that Gen-Z was brought up in a very chaotic and transformational time in history, and they are looking for passion and fulfillment in their careers, and to better society. This was a popular response, often added to the other responses as an afterthought as well, but it was a large consensus; students want other generations to know that because of the unique and transformational upbringing of Gen-Z, their values rely heavily on their impact on the world around them, and they wish to have a career that fulfills their need to positively contribute to society. Gen-Z wants to see their contribution to the world through their work in their career, so companies that want to hire and retain Gen-Z employees should have a tangible purpose for employees and make them feel like their work matters.

Question 1 Class B

Table 2

Class B results for Question 1) How would you explain Gen-Z to an older person at work so they would have a solid understanding of Gen-Z and what they are looking for in a career?

Answer	Prevalence	Percentage of Respondents
It will shrink due to long hours and laborious jobs	19	48.72%
It will first decrease then increase to adapt	5	12.82%
It will increase if pay increases	4	10.26%
Gen-Z will help overcome the labor shortage	4	10.26%
The market will be more automated, and technology will change the market	2	5.13%
Other: The future is more environmentally friendly, and there will be a decrease in residential and increase in commercial construction	2	5.13%

Table 2 shows the answers that Class B gave when asked the discussion question “where do you see the construction labor market with Gen-Z going in the future?” 48.72% of students answered that they think that the construction labor market will shrink in the future due to Gen-Z not being willing to keep up the tradition of working long hours and laborious jobs in the industry, and it will shrink due to the differences between Gen-Z and previous generations, like a change in work ethic, industry loyalty, and priorities. Students said that Gen-Z is more likely to choose desk jobs, rather than manual labor, which will contribute to the shrinking of the construction labor market in the next few years. The least amount of people in Class B answered that the market will be more automated to streamline and simplify construction, and that technology will change the market, at 5.13%. Only one person answered that the future will be more environmentally friendly in the construction labor market, and that there will be a decrease in residential and increase in commercial construction. 10.26% of the respondents answered that the labor market will increase if pay increases, and that Gen-Z will help overcome this labor shortage as they enter the workforce due to an emphasis on trades. These students believed that there will always be a demand for workers in the construction industry, so the market will likely not shrink. 12.82% of the class answered that the construction labor market will first decrease due to a competitive market, and then will increase as the industry adapts to Gen-Z and their

needs in the workforce; The construction industry will transform as Gen-Z starts to make up more of the workforce to accommodate more flexible hours, higher pay, and better benefits.

Question 2

Table 3

Results for Question 2) What changes are needed for construction companies to retain top talent and actionable steps to prioritize those changes? / What changes do companies need to make to retain talent in today's construction market? Specifically with Gen-Z?

Answer	Class A Prevalence	Class B Prevalence	Percentage of Respondents
Educating workers on new technology/training on technology and social media	16	10	29.21%
Workers should be challenged in personal growth and learning	10	4	15.73%
Work should be more fun and community oriented	4	2	6.74%
Attention should be given to training young recruits	16	8	26.97%
Good compensation and benefits	14	12	29.21%
More constructive feedback and mentoring	4	0	4.49%
A healthy work-life balance with flexible work hours and vacation time/remote work	15	12	30.34%
A sense of fulfillment and work that benefits society	4	1	5.62%
Prioritizing mental health and personal goals	6	2	7.87%
More safety guidelines	2	0	2.25%
Consideration of workers' opinions and suggestions	5	1	6.74%
Transparency on how to move up in company	4	6	11.24%

Table 3 shows the answers that both Class A and B gave when asked the discussion questions “what changes are needed for construction companies to retain top talent and actionable steps to prioritize those changes? / What changes do companies need to make to retain talent in today's construction market? Specifically with Gen-Z?” 29.21% of students said that educating workers on new technology and training them on technology and social media will help companies retain top talent; Gen-Z workers like to be challenged to feel fulfilled. 29.21% of students also said that good compensation and better benefits will help retain Gen-Z, and as the cost of living goes up and society adjusts, and Gen-Z will go where they are compensated the most. 30.34% of students said that a healthy work-life balance with flexible work hours, vacation time, and the ability to remote work will help companies retain workers; Gen-Z values their personal lives and a work-life balance is integral to keeping them. 26.97% of students said that companies should give more attention to training and recruiting young people, and in order for companies to attract Gen-Z they need to go speak to schools and universities more, attend job fairs, educate young students on the industry, to show them early on that construction is a viable career path. 15.73% of the students said that workers should be challenged in their jobs with personal growth and learning new methods, and Gen-Z is attracted by companies that are more personal with their employees, as it makes them feel more secure in their positions, which is then reflected in their work. 11.24% of the respondents answered that transparency

in how to move up in their company is important to retention because Gen-Z are more likely to “job hop,” to move up. 7.87% said that prioritizing workers’ mental health and personal lives and goals will help retain them, and companies prioritizing their employees as people, and cultivating a work environment that recognizes the employee’s strengths as a person is integral. 6.74% of the students answered that work should be more fun and a community atmosphere should be prioritized; when they value relationships within their company, they are more likely to enjoy their jobs. The two least common answers at 4.49% and 2.25%, respectively, were that more constructive feedback and mentoring, and more safety guidelines would positively affect retention in companies.

Question 3

Table 4

Results for Question 3) How can technology help bridge the generational gap? / What are some ways technology helps bridge the gap from construction to the office?

Answer	Class A Prevalence	Class B Prevalence	Percentage of Respondents
It brings generations together through increased efficiency and achieved goals	7	19	29.21%
It is a mutually beneficial relationship	24	1	28.09%
The generation gap does not exist	1	0	1.12%
It bridges communication gaps	6	19	28.09%
It redistributes a workload for older and provides opportunities for younger workers	4	0	4.49%
Gen-Z makes up for lack of experience with technology	1	1	2.25%
It cannot bridge gaps	3	2	5.62%

Table 4 shows the answers that both Class A and B gave when asked the discussion questions “how can technology help bridge the generational gap? / What are some ways technology helps bridge the gap from construction to the office?” The most common answer was that technology brings generations together through an increase in efficiency of work and more goals being achieved due to better and faster technology, at 29.21%. New technology will make work more efficient, which will bring generations together as they accomplish more in a less amount of time. Closely behind at 28.90%, respondents said that technology brings forth a mutually beneficial relationship where older generations can mentor younger ones with their years of experiences while the newer generation educates and helps them with new technologies; each generation has their strengths and while Gen-Z can take the lead in technology, older generations can provide advice based on experience. 28.09% also answered that technology bridges communication gaps by providing new platforms, ways of getting information places fast, and the ability to work from numerous places. It is now possible for people to work from home, and for people across the world to communicate and exchange information quickly; this has bridged a major communication gap from construction to the office. 5.62% of the students said that technology does not bridge generational gaps or gaps from construction to office, and it has also reinforced divides due to changing societal views and differing opinions. 4.49% of the respondents said that technology helps redistribute workloads because with more advanced technology, automated work can be given to younger workers to take work off of the hands of older workers. The two least common answers were that Gen-Z makes up for a lack of

experience with technology knowledge, at 2.25%, and that the generation gap does not exist, at 1.12%.

Discussion

The results of this study portray a need for the construction industry to adapt to changing times and a new generation of workers. Gen-Z is a unique generation, and as they enter the work force the construction industry will be losing a whole generation of workers with a lot of knowledge and experience. Gen-Z is a generation with more experience with technology due to growing up in a time of many technological advancements; to recruit and retain Gen-Z, companies should acknowledge these differences. Gen-Z's approach to their careers shows that they value their professional growth and strive for work that is important and beneficial to society, but they also wish for a healthy work-life balance and make their personal life and time a priority. To adapt and recruit Gen-Z workers, companies should put more emphasis on giving workers flexibility in their hours, and when warranted, the option to work remotely. Gen-Z are looking to be challenged in their learning, and to gain valuable experiences in their careers. By focusing on educating and training workers in new technology, companies will have an easier time retaining Gen-Z workers. Gen-Z, although attracted by a healthy work-life balance, also values connections within their workplace. Companies that show effort in engaging their workers and encouraging connections for a community-like atmosphere may attract and retain workers, as they will feel valued in their workplace. Additionally, Gen-Z values job security and good compensation for efficient work, so companies should be transparent in expectations and reward workers when warranted. When facilitated to work together, Gen-Z and older generations have the possibility to transform the construction industry; while Gen-Z is interested in technological growth, older generations have the capacity to mentor Gen-Z with their vast experience and knowledge of construction. When asked where they see the future of the construction industry going, students answered that the market will continue to decrease if it does not adapt to the new generation of workers and listen to their concerns. Gen-Z could help overcome the labor shortage within the construction industry if companies take Gen-Z's wishes into consideration.

Conclusion

In conclusion, the transition of Generation Z into the construction industry presents both challenges and opportunities for growth. It is crucial for the industry to attract, retain, and educate Gen-Z as they enter the workforce. This paper provides insight into Gen-Z's values, behaviors, goals, and approach to work in the construction industry through student feedback. Similarly, the responses provided to the question of explaining Gen-Z to older individuals at work have revealed a few key traits of this generation. Most respondents believe that Gen-Z is technologically advanced and seeks a career that evolves alongside them and technology. Additionally, Gen-Z values job security and wants a fulfilling career that positively contributes to society. However, some respondents also believe that Gen-Z is not as career-oriented as previous generations and prefers to work to live rather than live to work. Furthermore, social media has had a significant impact on Gen-Z's learning and sharing of information, affecting their attention span and empathy. Finally, inclusivity, diversity, and mentorship are also important to Gen-Z. Employers seeking to attract and retain Gen-Z employees should provide a tangible purpose for their work and make them feel valued. Overall, understanding these traits can help bridge the generation gap and create a more inclusive and productive workplace environment amid new technology and changing society.

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