

A Survey of Barriers and Enablers of the Successful Transition of Military Veterans into the Construction Industry

M. N. Sakib

*University of Texas at Arlington, Department of Civil Engineering, Texas, USA
mdnazmus.sakib@uta.edu*

T. Chaspari

*University of Colorado Boulder, Department of Computer Science & Institute of Cognitive Science, Colorado, USA
theodora.chaspari@colorado.edu*

W. Arthur Jr.

*Texas A&M University, Department of Psychological and Brain Sciences, Texas, USA
w-arthur@tamu.edu*

A. H. Behzadan

*University of Colorado Boulder, Department of Civil, Environmental, and Architectural Engineering & Institute of Behavioral Science, Colorado, USA
amir.behzadan@colorado.edu*

Abstract

This paper investigates strengths and weaknesses of military veterans transitioning into civilian employment, with a focus on careers in the architecture, engineering, and construction (AEC) sectors. As the aging AEC workforce confronts challenges in attracting skilled workers, veterans present a valuable yet underutilized talent pool. Following focus group discussions with human resources professionals that identified key areas of strength, e.g., teamwork and leadership, as well as weaknesses, e.g., difficulty veterans face in translating their military skills to civilian applications and managing interview-related stress, a survey completed by a pool of veterans provided insights from the candidates' perspectives. The research contributes new insights into the unique challenges and opportunities veterans encounter in civilian job interviews, particularly within the AEC domain. Findings will guide the development of actionable strategies to enhance veterans' interview performance and inform interventions designed to integrate veterans into the civilian labor market, thus enriching the workforce with their distinct skills and experiences.

Keywords: *construction workforce, correlation analysis, interview performance, veterans.*

Introduction

The architecture, engineering, and construction (AEC) workforce is aging and facing major hurdles in hiring and retaining motivated and skilled workers (Brown et al., 2020; Chan et al.,

2020; Sakib, 2022; Sokas et al., 2019). While the supply of new labor is limited, attracting, reskilling, and retaining of career change workers from other sectors of the economy to the AEC domain pose unique challenges. Military veterans are one of those non-traditional workforce groups that are attractive to the AEC industry. Construction jobs have been, in fact, a popular career choice among veterans (Azhar et al., 2016; Behzadan & Chaspari, 2021), given the skills they possess, including motivation, leadership, and discipline. However, veterans comprise only about 6.5% of the U.S. construction workforce, which is 10% lower than 2019 (Logan, 2023; United States Bureau of Labor Statistics, 2020; United States Census Bureau, 2020; United States Department of Labor, 2022; Vespa, 2020). Every year, considerable resources are devoted to developing service personnel's teamwork, stress management, and leadership skills (National Veterans' Training Institute, 2014). However, over two-thirds of job-seeking veterans report that the highest obstacle in their transition process is finding a career in the civilian sector (Prudential Financial Inc., 2012). Challenges, such as difficulty translating military-specific skills to the civilian setting and negative stereotypes held by some civilians toward veterans, have been cited as barriers to veterans seeking civilian jobs (Harrell & Berglass, 2012; Keeling et al., 2018; Shields et al., 2016; Stone & Stone, 2015). One major hurdle faced by many veterans seeking careers in the civilian sector (e.g., AEC industry) is the employment interview, which is used to assess a job candidate's knowledge, skills, or other traits determined to be predictive of successful job performance (Huffcutt & Arthur, 1994; Levashina et al., 2014). For many veterans, the employment interview is the first step of assimilation into the civilian workplace, which can turn the interview experience into an episode of nervousness or anxiety. In many cases, especially for managerial positions, a successful job interview stands between a veteran job seeker and a career in the construction or engineering sector (Smith et al., 2015). In a 2012 survey by Prudential, 85% of the 2,456 veteran respondents stated that they needed help to "close" a job interview (Prudential Financial Inc., 2012). Since employment interviews are often assigned significant weight in the hiring decision, they can disadvantage veterans if they do not perform as well as their civilian counterparts. This may compromise the interviewee's performance and potentially impede their successful career transition (Behzadan & Chaspari, 2021; Smith et al., 2021).

Methodology

A 10-item survey was administered to military veterans to obtain insights into their interview strengths and weaknesses in the civilian job interview. This survey was guided by findings from a focus group where 14 (8 veterans, 6 non-veterans) human resources professionals (7 from AEC firms) with experience in interviewing veterans shared their observations from interviewing veterans. The emerging themes from the focus group discussions included key areas of strength, e.g., teamwork and leadership, as well as weaknesses, e.g., difficulty in translating military skills to civilian applications and managing interview-related stress (Hagen et al., 2022). Further analysis on how strengths and weaknesses reported in the survey correlate with various demographic and personality factors, such as years of service, rank, participation in employment transition programs, employment status, emotional stability, and agreeableness, was conducted. The inclusion of emotional stability and agreeableness was in part driven by their relevance to identified themes of nervousness and interpersonal skills, respectively.

Participants and Data Collection

Data was collected online via Qualtrics over a span of 20 months, commencing in August 2021. Recruitment was done by distributing a study flyer and signup link on social media (e.g., Facebook, LinkedIn, Instagram), the American Psychological Association's Division 9 (Military Psychology) listserv, personal contacts in the U.S. Department of Defense-affiliated organizations (such as research labs and consulting firms) with instructions for broad distribution, Texas Veterans Commission, and the U.S. Department of Veterans Affairs. The study flyer was also sent via Texas A&M University's bulk email system, reaching out to a relatively large veteran community on campus. Collectively, from 396 respondents who expressed interest, 356 were qualified to participate (i.e., self-identified U.S. veterans, aged 18 or older, who were proficient in English) and received the survey link. Biweekly follow-up emails were sent until the survey closed on April 2023. Participants consented before taking part in the survey. Out of 356 individuals who received the link, 122 completed the survey. However, 29 were excluded due to incomplete data or inconsistency in verifying their veteran status. This verification involved a captcha and four repeating veteran-specific questions in the survey to confirm human and veteran status, with mismatches leading to exclusion from the final sample. The final study sample included 93 veterans, mostly male (70%) and White (62%), with ages ranging from 22 to 80 years (Mean = 40.4; SD = 11.82). On average, participants had exited military service 7.15 years before the study (Mean = 3.00; SD = 10.56).

Survey Details

Respondents filled out a survey of their perceived strengths and weaknesses in civilian job interviews, demographic information, and levels of emotional stability and agreeableness. Collected data were analyzed in relation to the perceived interview strengths and weaknesses to provide deeper insights into these areas.

Strengths and Weaknesses

The survey included a set of 10 items created based on the themes that emerged from previously conducted focus group discussions with human resource professionals (Hagen et al., 2022). Each theme was assessed by 1-3 survey items. Respondent rated how each item described their experience in civilian job interviews using a 5-point Likert scale (1: strongly disagree; 5: strongly agree). To limit survey fatigue (incomplete responses), the measure was intentionally kept brief (Liu & Wronski, 2018).

Demographics

Respondents provided data on their age, gender, educational background, length of military service, and military rank. They also indicated their current employment status, whether they were deployed while serving, if they were affiliated with any veteran organization, and if they had taken part in any program designed to help them transition to the civilian life.

Emotional Stability and Agreeableness

Emotional stability and agreeableness were inferred from selected items in the Symptom Checklist 90-R (Derogatis, 1992). Participants evaluated the extent various issues had bothered them in the past week on a 5-point Likert scale (1: not at all; 5: extremely). For assessing emotional stability, 6 items were reverse-coded and chosen, while 2 items were identified as measures of agreeableness due to their close resemblance to the traits outlined in IPIP-NEO-300 (Goldberg, 1999). The internal consistency for emotional stability and agreeableness was found to be 0.77 and 0.88, respectively.

Table 1. Items and corresponding themes.

Theme	Item
1. Communicating soft skills	1. I am able to effectively convey my teamwork experience.
	2. I am able to effectively convey my leadership experience.
	3. I am able to effectively convey my experience in conflict resolution.
2. Confidence/Overconfidence	4. I feel confident.
	5. I try not to come across as being arrogant.
3. Professionalism/Inauthenticity	6. I am professional
4. Ineffective translation of relevant technical skills acquired in the military and overexplaining	7. I find it difficult to explain how my military experience can be applied to civilian jobs.
	8. I am able to effectively promote my skills (R).
5. Use of military jargon	9. I find it difficult to limit the excessive use of military jargon/acronyms.
6. Nervousness	10. I feel stressed.

Results

Table 2 reveals a range of Pearson's product moment correlation coefficient (PPMCC) between various themes from negligible (0.00) to moderate (0.54). Positive correlations within strength themes ($r = 0.24$ to 0.32) suggest that veterans with one strength typically exhibit others, with a similar trend observed among weaknesses ($r = 0.32$ to 0.35). The relationship between strengths and weaknesses varied widely, with the most significant negative correlation ($r = -0.45$ to -0.21) seen in veterans' difficulty in explaining their military experience (i.e., technical skills, overexplaining), suggesting this may impact strength themes the most. Other correlations between strengths and weaknesses were not statistically meaningful.

Table 2. Theme descriptive statistics and intercorrelations (* $p < 0.05$, two-tailed).

Theme	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Communicating soft skills	93	3.90	0.68					
2. Confidence	93	4.04	0.78	0.54*				
3. Professionalism	93	4.34	0.80	0.24*	0.32*			
4. Technical skills and overexplaining	93	2.71	0.85	-0.45*	-0.38*	-0.21*		
5. Use of military jargon	90	2.87	1.27	0.13	-0.01	0.00	0.31*	

As listed in Table 3, the validity of the six themes was evaluated by analyzing how they correlated and formed significant connections with various demographic (i.e., years of service, rank, participation in transition programs, employment status) and personality factors (i.e., emotional stability, agreeableness). While gender had no significant correlation with any of the themes, age exhibited a positive correlation with confidence ($r = 0.23$). Additionally, higher education level was linked to less difficulty in articulating technical skills from military experience ($r = -0.25$). Veterans with a longer service duration and higher rank faced more challenges in minimizing the use of excessive military jargon ($r = 0.25$; $r = 0.24$). Those who were employed exhibited greater confidence ($r = 0.28$) and were more adept at communicating their soft skills ($r = 0.25$). Moreover, those with deployment experience reported feeling less nervous ($r = -0.45$) during interviews. Also, while participation in veteran organizations did not show a significant connection to any of the identified themes, veterans who engaged in transition programs tended to report greater difficulties in curbing their use of military jargon, with a notable correlation ($r = 0.27$). Considering personality, those exhibiting higher levels of emotional stability and agreeableness also demonstrated stronger strengths across all themes and fewer weaknesses, particularly in effectively conveying their military experience.

Table 3. Descriptive statistics and correlations between themes and other variables (* $p < 0.05$, two-tailed).

Other vars.	<i>N</i>	<i>M</i>	<i>SD</i>	COM	CONF	PROF	TECH	JARG	NERV
Age	92	40.40	11.82	0.17	0.23*	0.14	-0.20	-0.02	-0.05
Sex ^a	92	-	-	0.12	0.11	-0.04	-0.06	-0.03	0.11
Education	92	6.00	1.30	0.09	0.11	0.07	-0.25*	-0.05	-0.10
Employment ^b	90	-	-	0.25*	0.28*	0.16	-0.10	0.01	0.07
Deployment ^c	69	-	-	-0.15	-0.22	0.04	0.06	-0.16	-0.26*
Years of Service	71	12.89	9.00	0.09	0.16	0.03	0.03	0.25*	0.15
Rank ^g	89	1.82	0.90	0.16	0.10	-0.15	-0.08	0.24*	-0.01
Membership in Veteran Organization ^e	71	-	-	0.04	-0.01	0.12	-0.16	0.21	-0.05
Participation in Veteran Transition Programs ^f	70	-	-	0.11	0.17	0.12	-0.16	0.27*	0.10
Emotional Stability	88	4.80	0.99	0.27*	0.43*	0.23*	-0.24*	0.05	-0.08
Agreeableness	84	5.50	1.10	0.25*	0.35*	0.31*	-0.23*	-0.02	-0.04

Note. COM = Communicating soft skills, CONF = Confidence, PROF = Professionalism, TECH = Technical skills and overexplaining, JARG = Use of military jargon, NERV = Nervousness. ^a0 = Male

and 1 = Female. ^b0 = Unemployed and 1 = Employed. ^c0 = had not been deployed and 1 = had been deployed. ^d1 = E, 2 = W, and 3 = O; ^e0 = Not a member and 1 = a member. ^f0 = did not participate and 1 = participated. ^gRank as operationalized in the raw data displays a similar pattern of results.

Discussion

The association of personality traits with stronger interview strengths and fewer weaknesses supports the notion that these aspects are significant predictors of interview success, offering a meaningful interpretation of the outcomes of this research. While civilian interviews may seem unfamiliar, many veterans have relevant experience from military board interviews and should use key skills valued in civilian contexts (e.g., adaptability, project management, teamwork, leadership). It is also vital to address potential weaknesses (e.g., use of military jargon) by practicing the translation of military experiences into civilian-appropriate language. Moreover, engaging in mock interviews and seeking interview coaching could provide crucial practice and feedback, improving veterans' interview performance (Maurer & Solamon, 2006; Maurer et al., 2001; Perkins et al., 2022; Tross & Maurer, 2008). For hiring AEC firms, it is recommended to utilize structured interviews, as well as train interviewers to evaluate veteran candidates more objectively and understand the unique challenges they may face during interviews. This dual strategy benefits both veterans in highlighting their skills and hiring firms in recognizing the contributions veterans bring to the construction workforce.

Conclusion and Limitation

This research was motivated by the challenges faced by military veterans during civilian job interviews. Findings explain the critical nature of employment interviews as gateways for veterans seeking to join the civilian workforce, particularly in AEC fields. While the research highlights veterans' teamwork and leadership skills, it also cites key challenges, such as the difficulty in translating military skills to civilian job requirements and managing interview-related anxiety, which is especially pertinent to careers in the AEC domain. Through empirical testing and validation, a framework was established for identifying strengths and weaknesses that could influence the interview outcome for veterans. Interventions, such as interview coaching and the use of mock interviews, might improve veterans' skills, boost confidence, and enhance their ability to articulate their qualifications in terms relevant to the hiring AEC firms. While it is essential to acknowledge the limitations due to the sample size and sampling methods, which may affect the generalizability of the results, the outcomes of this work provide a foundation for future studies involving a larger, more diverse participant pool and utilizing multi-source data collection strategies. Findings can also lead to the development of tailored training programs that specifically address veterans' needs, thereby facilitating their successful transition into the civilian workforce and enriching the AEC firms that hire them. Lastly, this research may serve as a call to action for policymakers and AEC business leaders to create supportive environments that recognize and leverage veterans' unique skills and experiences, and acknowledge and fully utilize their contributions in civilian roles. Ultimately, this can lead to increased chances of employment, customized training and professional development programs that address the specific needs of the AEC industry, and more inclusive workplaces where all employees are offered adequate skills and opportunities to achieve long-term success.

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