

General Perceptions of Student Veterans Based on Faculty and Staff Role and Level

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Abstract

Many companies and faculty recognize the student veteran's skills, experiences, and unique gifts they bring to an organization. The use of student veteran's versus veteran students is intentional to ensure the focus on students who happen to be veterans rather than on veterans who happen to be students. However, the existing biases and perceptions by faculty and students to include the veterans themselves can affect the interaction with veterans within the classroom, and eventually how prepared they are to enter the civil workforce (learning outcomes). As presented in recent papers, the generalized perceptions can be either positive or negative without a desire to do so with intent [1]. Informing faculty of these possible perceptions is critical based on the high numbers of current and future student veterans due to the Post 9/11 GI Bill and the veterans' desire to pursue their educational goals once they leave the military. Veterans are a special demographic who are tracked on federal and state employment Equal Opportunity Hiring Policies and are a special interest group in the US government census. This results in a desire to increase the student veterans as well as active-duty military members' presence in our classrooms, both virtual and physical spaces. Therefore, it is important that faculty (subset of a larger set of key people: advisers, staff, and administrators) who impact the success of veterans within our campuses are cognizant and aware of this group and the diverse opportunities they bring to higher education.

Purpose

This paper is part of a larger study of perceptions and the impact of those perceptions on our student veterans. The term 'student veteran' is used throughout as a term that encompasses Active Duty and Veteran-status holding students. Previous and continuing work investigates through a quantitative survey instrument across eight academic institutions the staff and faculty perceptions toward student veterans. The survey questions compare the agreement or disagreement of several known veteran stereotypes. Previously the perceptions of all faculty to include veterans were analyzed [1]. The focus of this paper will be on the biases of non-veteran faculty and staff populations based on the faculty and staff role and level within an institution. These misperceptions reveal opportunities for staff and faculty training and refinement of institutional policies.

Below, Table 1 matches myths with survey items, summarizing both veteran and civilian semantic polarities. Survey items 8 and 9 capturing veteran combat experience and employment expectations do not have a civilian corollary, as indicated in Table 1. These myths or stereotypes are sourced from known veteran stereotypes of veterans [2] and do not reflect the authors' perspectives. Some civilian-focused survey items take an opposite 'polarity to the veteran-focused statements to allow for counter-validation of the survey [3].

Table 1: Veteran and civilian-coded survey items

Veteran Item	Veteran-coded	Civilian Item	Civilian-coded
1	Veterans are more likely to suffer from PTSD than civilians.	13	Civilians are less likely to suffer from PTSD than veterans.
2	Veterans are more likely to be educated than civilians.	14	Civilians are more likely to be educated than veterans.
3	Veterans are more likely to have relevant job skills.	15	Civilians are more likely to have relevant job skills than veterans.
4	Veterans are generally more organized than civilian employees.	16	Civilians are generally less organized than veteran employees.
5	Veterans and service members are more likely to take initiative on their own than to follow directives as compared to civilians.	17	Civilians are more likely to take initiative on their own than to follow orders.
6	Veterans and their families are more likely to participate in community and social events.	18	Civilians and their families are more likely to participate in community and social events.
7	Veterans are more likely to need help or advice than civilian employees.	19	Civilians generally need more help and guidance than veteran employees.
8	Veterans expect perks from employers because of their service status.	--	No Corollary
9	Most veterans serve in combat or combat roles.	--	No Corollary
10	Veterans are more likely to have tattoos or dermal art, which may be inappropriate for some employment roles.	20	Civilians are less likely to have tattoos or dermal art.
11	Veterans are more likely to be diverse or members of underrepresented groups.	21	Civilians are less likely to be diverse or members of underrepresented groups.

12	Veterans are more likely to be rigid thinkers than other employees.	22	Civilians are more likely to be rigid thinkers than veteran employees.
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Role and Level

Faculty rank and role is known to have measurable impacts on the student educational experience and student perceptions [4] – [5] even as traditional tenure structures shift. For this reason, the authors were interested in faculty rank as a potential point of effect interaction with student veteran stereotypes. Very interesting profiles were seen when focusing on faculty roles, but additional definition is required to understand the experience level and course levels of instructors, senior instructors, associate, and full professors.

Generally, assistant professors are focused heavily on research to gain tenure, have been faculty at their current institution for less than 6 years, and may perhaps teach more graduate level courses. Of course, institutional faculty development models and department priorities may skew this observation. Associate professors between 6 and 12 years at the institution may be still heavily focused on research to achieve the rank of full professor and those between 12 to 30+ years may be more likely permanent associate professors managing more administrative roles (associate deans and/or department heads depending on size of the department) and/or teaching more normally observed at the undergraduate level when the research is lacking. Full professors have been faculty normally between 12 and 30+ years who can be heavily engaged in research or transitioning to administrative or greater teaching roles as research begins to slow (or stop). They may still teach graduate or senior level undergraduate courses versus lower-level undergraduate courses. At many institutions, instructors are normally part-time, but a few can be full-time. If available, those who are teaching full-time may be rewarded (generally after 12 years of teaching) with the rank of senior lecturer based on high quality teaching. However, both instructor and senior instructors generally teach more and would expect to have more interaction with students. They may also teach more of the larger enrollment courses, especially instructors, primarily teaching at the undergraduate level.

Methods

The goal of the survey data collection was to provide insight into possible biases by rank and level of faculty. The first comparison within this paper is to look at the data presented at the 2024 Annual ASEE Conference and the current larger data set based on additional universities encouraging faculty and staff to participate in the survey. The self-reported role and level for both data sets is provided in Table 2 (Column 2 and 3). This comparison (Table 3) provides insight within each of the counter-balanced, veteran-focused survey questions and civilian-focused survey questions. Faculty and staff veterans could impact the survey results, so the next comparison will be the current large data set versus the removal of self-reported faculty and staff veteran results. Additional information self-reported were whether a faculty or staff member had an immediate family member who was a veteran (Level 1 proximity) or knew of a veteran within the extended family or as a friend (Level 2 proximity). Faculty and staff also reported if they had participated in Green Zone training or other military allyship training. Green Zone training

familiarizes faculty and staff on the possible issues facing veterans as they return to campus and the classroom. Table 2 provides the number based on rank and level of those that self-reported as attending or not attending Green Zone training and if they had a veteran within the immediate family (Level 1) or within the distant family or a friend (Level 2).

Table 2. Self-Reported Role and Level for 2023 and 2024 data to include how knowing veterans (Level 1 or Level 2) and whether they attended or did not attend Green Zone training

	2023 All Data	2024 All Data	2024 Veterans Excluded	2024 Veterans Excluded Level 1	2024 Veterans Excluded Level 2	2024 Veterans Excluded Green Zone Training	2024 Veterans Excluded No Green Zone Training
Instructor	13	11	10	3	6	1	9
Senior Instructor	9	12	9	3	5	2	7
Assistant Professor	17	25	21	4	15	1	20
Untenured Total	39	48	40	10	26	4	36
Associate Professor	14	20	17	8	9	3	14
Full Professor	23	36	27	16	11	0	27
Tenured Total	37	56	44	24	20	3	41
Staff	30	60	55	24	28	8	47
Level 1						11	54
Level 2						25	66

Results from the counter-balanced, veteran-focused survey questions and civilian-focused survey questions administered across eight institutions ($n > 200$) are presented below in Table 3, separated by faculty Role and Level. Note that at the bottom of each question comparison, the results are further analyzed by comparing non-tenured faculty (Instructor, Senior Instructor, Assistant Professor) to tenured faculty (Associate and Full Professors). Overall means for each category are given in red.

The first comparison is the results (including faculty veterans) presented at the 2024 ASEE conference (second and fifth columns) to the updated results (including veterans, third and sixth columns) based on the larger sample since the 2024 ASEE conference. The comparison focuses on any trend changes based on the new larger data set to update the results from the 2024 ASEE Annual Conference. Each of the perceived biases are further discussed based on role and level to set the stage for further comparisons mentioned above using primarily overall means. When a greater than sign ($>$) is used, if the expected bias for the veteran is observed then the value would

be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive. The summary tables that follow provide the difference from the overall mean for a given faculty cohort against a given condition or factor. Overall differences in means are given in red and precede each new factor summary. For all the tables presented below, the top heading for columns 2, 3, 5, and 6 represent the headings for each subsection within the table subject to the direction of the inequality.

Results

False Beliefs about PTSD and Veteran Status

PTSD is an area that many assume will be more likely present within the veteran population than the civilian population. The PTSD Veteran stereotype has been widely attributed to mass media and film [6] – [7] and unsurprisingly both veterans and civilians believe that they are immune to such media influence [8] – [9], though studies do not support this self-perception. Additionally, we now know that Adverse Childhood Experiences (ACEs) are more strongly predictive for PTSD than combat exposure according to large, meta-analyses [10] – [13]. The general viewpoint of staff and faculty appears to agree with the statement that “veterans are more likely to experience PTSD,” but the more experienced faculty (senior instructor and full professor, gray shade) are more neutral toward the statement of veterans being more likely to have PTSD (Table 3). Higher ranking faculty are assumed to have had greater contact with veterans over a much longer teaching and/or research time. These statements are consistent for the updated results (including veteran faculty) except for the senior instructors. Senior instructors were the smallest faculty role within the 2024 ASEE Conference data set, but now show greater agreement that veterans are more likely to have PTSD (gray shade).

False Beliefs about Taking Initiative and Veteran Status

When analyzing the initial results, all faculty and staff appear to believe that the veteran is more likely to take the initiative than simply follow orders (Table 3). Many believe those serving in the military are used to following ethical, moral, and safe orders and, so, they might question why student veterans would adjust the given assignment instructions if faculty are the classroom leaders. Further insight from those allied military veterans in Higher Education (HE) reveals that the military trains its subordinates to take initiative when they feel it is required. Plans are prepared to issue the orders for combat operations, but once the battle begins, the battlefield is usually chaotic. The veteran students see the battlefield instructions (project, homework, etc.) as the initial plan and they usually make decisions to solve the problems at hand. The tenured faculty agreed more for veterans taking initiative than non-tenured (Table 3, gray shade). The updated survey results show greater agreement for all faculty, less agreement with the staff (gray shade). Overall, all expect the veteran to take more initiative than their civilian classmates.

False Beliefs around Being Organized and Veteran Status

Faculty and staff believe that veterans are more likely to be organized rather than civilians (Table 3). The non-tenured faculty agree less while the updated results display even greater agreement for both faculty and staff.

False Beliefs around Rigid Thinking and Veteran Status

The initial data showed that most faculty believe that veterans are more likely to be rigid thinkers as compared to the civilian students (Table 3). The staff and senior instructors were more neutral (gray shade). This overall impression is possibly based on the fact that the military trains its enlisted personnel to follow procedures without overthinking, which allows individuals and teams to handle challenging situations without hesitation. However, staff and senior lecturers who may interact with veterans differently see the veterans as less rigid in their thinking. Tenured faculty observe veterans as less rigid thinkers than untenured faculty. The updated data shows the staff more in agreement while the assistant professors were more neutral (Table 3, gray shade).

False Beliefs about Diversity and Veteran Status

Generally, faculty and staff see veterans as being more diverse than the civilian student populations, at least within engineering (Table 3). The initial exception being the senior instructors which may be based on the level of interaction (courses they teach). As noted previously, they were also the smallest of the faculty pools within the 2024 ASEE Conference data. The military purposely builds diverse organizations and its practices of selecting candidates with diversity in mind for military academies is currently coming under attack in U.S. courts [14]. The primary goal for accepting a more diverse student population at service academies is to ultimately provide military leaders that are more representative of the enlisted diversity. Additionally, many enlisted join the military to eventually use the GI Bill and change their life and work trajectory. Military diversity increases the diversity of veteran students who ultimately increase the diversity in engineering firms. The update shows a decrease in agreement by all faculty except both instructor ranks which showed greater agreement even though the senior instructor result was neutral (Table 3, gray shade).

False Beliefs around Relevant Job Skills and Veteran Status

All faculty, except the senior lecturers (smallest faculty data set) and assistant professors believe veterans bring to the classroom relevant job skills (Table 3, gray shade). Veterans have spent numerous years (generally 3 or more) gaining unique military skills. Senior lecturers and assistant professors within the 2024 ASEE conference data did not see the same level of relevant job skills a student veteran might possess, but the updated data shows an increase in agreement for all with the senior instructors and assistant professors increasing in agreement but still being less in agreement than the others (Table 3, gray shade). Tenured faculty (gray shade) agree more strongly that veterans bring relevant job skills into the classroom.

False Beliefs around Education Level and Veteran Status

Faculty generally observe veterans as being slightly more educated than civilian students (Table 3). Faculty who advise returning veterans see the depth and range of transfer courses as well as non-transferable military courses. Many veterans complete the first-year courses, especially humanities and social science courses, prior to entering the military or while serving. However, many need to take the Freshman Engineering course when they begin their academic journey full-time. Many are taking freshmen and sophomore classes at the same time if they were able to take key science and mathematics courses while serving in the military. Tenured faculty and staff see veterans as more educated because they are more likely assigned as advisers for returning

veterans. On the other hand, less contact with student veterans may explain why untenured faculty believe civilian students are more educated (Table 3, gray shade).

False Beliefs around Community Engagement and Veteran Status

Lack of contact with veterans through advising and community activities impacts their perception of veterans' lack of community engagement. However, associate professors consistently within both the 2024 ASEE conference data and the larger updated data set see the veterans more engaged within the community (Table 3, gray shade). This could be based on having similar hobbies, age, and children's ages. Veterans engage with the community differently because they are generally older than the overall undergraduate student population. The largest change within the updated data set occurred with staff reversing a perception that veterans engage within their community to the civilian student's engaging more (Table 3, gray shade).

False Beliefs around Help-seeking Behaviors and Veteran Status

The consensus was that veterans are less likely to seek help (Table 3). Many veterans return to college after doing poorly and then enlisting in the military. When the veteran decides to return to college, their appreciation for the opportunities a college degree provides, their more focused work ethic, and greatly matured learning abilities are key motivational factors driving their success through independent learning [15].

False Beliefs around Dermal Art and Veteran Status

Many years ago, most would expect the data to point to veterans being more likely to have dermal art, but the 2024 ASEE data pointed to a neutral position with a slight lean toward civilian students more likely to have dermal art (Table 3). The tenured faculty leaned toward more civilian students having dermal art while non-tenured faculty felt that veterans are more likely to have dermal art (Table 3, gray shade). The updated data set matched the overall perception that civilian students are slightly more likely to have dermal art (Table 3). Dermal art was included within the questionnaire because it matched with known veteran myths.

False Beliefs around Combat Experience and Special Recognition

The final two questions do not have a civilian counter, but the results are quite interesting. The results on whether student veterans had been in combat or would expect special recognition are overall neutral with a lean toward disagreement (Table 3). The bookends for both questions were consistently the associate professors were on the agree side of neutral while the staff leaned toward disagree.

Even though there was some movement between individual rank and level, the overall trends and bookend positions remained the same.

Table 3: Responses to Veteran Belief Statements, Based on Role and Level, Veterans Included, 2024 ASEE Data Set Versus Updated Data Set (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2023 > Vet	2024 > Vet	Initiative	2023 > Vet	2024 > Vet
All:	0.423	0.397	All:	0.824	0.903
Instructor:	0.506	0.727	Instructor:	0.154	0.364
Senior Instructor:	0.056	0.417	Senior Instructor:	0.458	1.083
Assistant Professor:	0.515	0.337	Assistant Professor:	0.662	0.895
Associate Professor:	0.769	0.600	Associate Professor:	0.923	1.000
Full Professor:	0.174	0.167	Full Professor:	0.830	1.037
Staff:	0.467	0.534	Staff:	0.848	0.757
<i>Non-Tenured:</i>	<i>0.545</i>	<i>0.448</i>	<i>Non-Tenured:</i>	<i>0.587</i>	<i>0.818</i>
<i>Tenured:</i>	<i>0.389</i>	<i>0.321</i>	<i>Tenured:</i>	<i>0.864</i>	<i>1.023</i>
Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.312	0.433	All:	0.377	0.368
Instructor:	0.135	0.364	Instructor:	0.567	0.818
Senior Instructor:	-0.389	0.167	Senior Instructor:	0.278	0.333
Assistant Professor:	0.051	0.147	Assistant Professor:	0.625	0.177
Associate Professor:	0.462	0.500	Associate Professor:	0.462	0.550
Full Professor:	0.543	0.713	Full Professor:	0.403	0.341
Staff:	0.353	0.425	Staff:	0.114	0.425
<i>Non-Tenured:</i>	<i>0.104</i>	<i>0.201</i>	<i>Non-Tenured:</i>	<i>0.653</i>	<i>0.363</i>
<i>Tenured:</i>	<i>0.514</i>	<i>0.635</i>	<i>Tenured:</i>	<i>0.422</i>	<i>0.415</i>
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.224	0.201	All:	0.822	0.974
Instructor:	0.348	0.545	Instructor:	0.782	1.091
Senior Instructor:	-0.236	0.000	Senior Instructor:	0.375	0.750
Assistant Professor:	0.265	0.097	Assistant Professor:	0.313	0.583
Associate Professor:	0.308	0.150	Associate Professor:	1.154	1.400
Full Professor:	0.306	0.166	Full Professor:	0.929	1.070
Staff:	0.277	0.305	Staff:	0.915	0.974
<i>Non-Tenured:</i>	<i>0.288</i>	<i>0.173</i>	<i>Non-Tenured:</i>	<i>0.629</i>	<i>0.745</i>
<i>Tenured:</i>	<i>0.308</i>	<i>0.161</i>	<i>Tenured:</i>	<i>1.010</i>	<i>1.187</i>
Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.143	0.231	All:	0.17	0.089
Instructor:	0.417	0.636	Instructor:	-0.795	-0.727
Senior Instructor:	-0.333	0.417	Senior Instructor:	-0.250	0.083
Assistant Professor:	-0.290	-0.198	Assistant Professor:	0.015	0.170

Associate Professor:	0.077	0.200	Associate Professor:	0.385	0.500
Full Professor:	0.488	0.645	Full Professor:	0.040	0.195
Staff:	0.039	0.119	Staff:	0.270	-0.102
<i>Non-Tenured:</i>	<i>0.033</i>	<i>0.150</i>	<i>Non-Tenured:</i>	<i>-0.224</i>	<i>-0.063</i>
<i>Tenured:</i>	<i>0.307</i>	<i>0.485</i>	<i>Tenured:</i>	<i>0.163</i>	<i>0.304</i>
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-0.511	-0.582	All:	-0.031	-0.028
Instructor:	-0.538	-0.455	Instructor:	0.006	0.182
Senior Instructor:	-1.472	-1.250	Senior Instructor:	-0.028	0.083
Assistant Professor:	-0.287	-0.360	Assistant Professor:	-0.581	-0.520
Associate Professor:	-0.385	-0.200	Associate Professor:	0.231	0.100
Full Professor:	-0.219	-0.167	Full Professor:	0.101	-0.047
Staff:	-0.944	-1.108	Staff:	0.018	0.111
<i>Non-Tenured:</i>	<i>-0.583</i>	<i>-0.606</i>	<i>Non-Tenured:</i>	<i>-0.178</i>	<i>-0.199</i>
<i>Tenured:</i>	<i>-0.278</i>	<i>-0.179</i>	<i>Tenured:</i>	<i>0.151</i>	<i>0.006</i>
Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	2.8	2.536	All:	2.5	2.351
Instructor:	2.615	2.727	Instructor:	2.230	2.273
Senior Instructor:	2.778	2.667	Senior Instructor:	2.000	2.000
Assistant Professor:	2.412	2.400	Assistant Professor:	2.706	2.320
Associate Professor:	3.692	3.200	Associate Professor:	3.000	2.900
Full Professor:	3.087	2.667	Full Professor:	2.696	2.472
Staff:	2.200	2.183	Staff:	2.033	2.167
<i>Non-Tenured</i>		<i>2.542</i>	<i>Non-Tenured</i>		<i>2.229</i>
<i>Tenured</i>		<i>2.857</i>	<i>Tenured</i>		<i>2.625</i>

2024 data with veterans included versus not included

The next table (Table 4) compares the updated data set results with the 25-veteran faculty and staff within the results versus only the nonveteran faculty and nonveteran staff (by far the largest subset, see Table 2 for changes in faculty and staff numbers). Tables 4 - 10 only present the overall means and the non-tenured and tenured means for current analysis. The faculty and staff nonveterans tend to believe that veterans are more likely (overall means slightly larger than data set with veterans included) to have PTSD, be more organized, rigid thinkers, diverse, bring relevant job skills into the classroom, to engage in community, while they believe that veterans are less likely (overall means slightly lower than data set with veterans included) to take initiative and to be more educated. For the two questions without a civilian corollary, the results were very consistent with or without the inclusion of veteran faculty and veteran staff.

Table 4: Responses to Veteran Belief Statements, Based on Role and Level, Updated Data Set with Veterans Included Versus Veterans Excluded (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2024 Vet Included > Vet	2024 Vet Excluded > Vet	Initiative	2024 Vet Included > Vet	2024 Vet Excluded > Vet
All:	0.397	0.476	All:	0.903	0.838
Non-Tenured:	0.448	0.575	Non-Tenured:	0.818	0.825
Tenured:	0.321	0.383	Tenured:	1.023	0.955
Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.433	0.453	All:	0.368	0.427
Non-Tenured:	0.201	0.275	Non-Tenured:	0.363	0.475
Tenured:	0.635	0.682	Tenured:	0.415	0.500
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.201	0.235	All:	0.974	1.013
Non-Tenured:	0.173	0.225	Non-Tenured:	0.745	0.890
Tenured:	0.161	0.205	Tenured:	1.187	1.205
Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.231	0.184	All:	0.089	0.182
Non-Tenured:	0.150	0.225	Non-Tenured:	-0.063	0.175
Tenured:	0.485	0.409	Tenured:	0.304	0.341
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-0.582	-0.563	All:	-0.028	-0.019
Non-Tenured:	-0.606	-0.425	Non-Tenured:	-0.199	-0.150
Tenured:	-0.179	-0.205	Tenured:	0.006	-0.023
Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	2.536	2.503	All:	2.351	2.343
Non-Tenured:	2.542	2.500	Non-Tenured:	2.229	2.225
Tenured:	2.857	2.773	Tenured:	2.625	2.682

Faculty and staff nonveterans overall versus faculty and staff nonveterans with immediate family member veteran (Level 1)

Faculty and staff members with veterans within their immediate families or within distant family connections and as friends, no matter how distant, can affect how faculty and staff perceive veterans in their classrooms. Table 5 compares the non-veteran faculty and non-veteran staff responses to those with veterans within immediate family members. These faculty and staff who have a veteran within their immediate family (Level 1) are more neutral on veterans being more

likely to suffer from PTSD, on veterans being rigid thinkers, and on veterans not seeking help. They are more in agreement that veterans will take more initiative, are more organized, bring more relevant job skills into the classroom, are more educated, expect less recognition, and will engage with community more. They also believe, if only slightly, that civilian students have more dermal art. Generally, the largest positive change toward veteran perceptions was within the non-tenured faculty who also had a connection to an immediate family veteran.

Table 5: Responses to Veteran Belief Statements, Based on Role and Level, Updated Data Set with Veterans Excluded Versus Veterans Excluded and Having a Veteran as Immediate Family Member (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2024 Vet Excluded > Vet	2024 Level 1 > Vet	Initiative	2024 Vet Excluded > Vet	2024 Level 1 > Vet
All:	0.476	0.369	All:	0.838	1.108
<i>Non-Tenured:</i>	0.575	0.800	<i>Non-Tenured:</i>	0.825	1.400
<i>Tenured:</i>	0.383	0.250	<i>Tenured:</i>	0.955	1.208
Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.453	0.569	All:	0.427	0.277
<i>Non-Tenured:</i>	0.275	0.600	<i>Non-Tenured:</i>	0.475	-0.100
<i>Tenured:</i>	0.682	0.833	<i>Tenured:</i>	0.500	0.625
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.235	0.246	All:	1.013	1.242
<i>Non-Tenured:</i>	0.225	0.708	<i>Non-Tenured:</i>	0.890	1.267
<i>Tenured:</i>	0.205	0.333	<i>Tenured:</i>	1.205	1.333
Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.184	0.508	All:	0.182	0.277
<i>Non-Tenured:</i>	0.225	0.600	<i>Non-Tenured:</i>	0.175	0.300
<i>Tenured:</i>	0.409	0.750	<i>Tenured:</i>	0.341	0.542
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-0.563	-0.308	All:	-0.019	0.077
<i>Non-Tenured:</i>	-0.425	-0.900	<i>Non-Tenured:</i>	-0.150	0.400
<i>Tenured:</i>	-0.205	0.250	<i>Tenured:</i>	-0.023	-0.042
Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	2.503	2.462	All:	2.343	2.092
<i>Non-Tenured:</i>	2.500	2.300	<i>Non-Tenured:</i>	2.225	1.600
<i>Tenured:</i>	2.773	2.625	<i>Tenured:</i>	2.682	2.458

Faculty and staff nonveterans overall versus faculty and staff nonveterans with distant family member or a friend veteran (Level 2)

Table 6 compares the faculty and staff non-veteran responses to those with only a distant connection to veterans through either distant family or friends. These faculty and staff who are connected with a veteran through a distant family connection or friend are slightly more in agreement on veterans more likely to suffer from PTSD, on veterans being rigid thinkers, and on veterans not seeking help. They are slightly less in agreement that veterans will take more initiative, are more organized, bring more relevant job skills into the classroom, are more educated, expect less recognition, and will engage with community more. However, they believe, if only slightly, that military students have more dermal art. Again, the largest positive change toward veteran perceptions was within the non-tenured faculty where possibly less experience teaching veterans is informed by veterans within the distant family or as friends.

Table 6: Responses to Veteran Belief Statements, Based on Role and Level, Updated Data Set with Veterans Excluded Versus Veterans Excluded and Having a Veteran as Distant Family Member or Friend (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2024 Vet Excluded > Vet	2024 Level 2 > Vet	Initiative	2024 Vet Excluded > Vet	2024 Level 2 > Vet
All:	0.476	0.571	All:	0.838	0.648
Non-Tenured:	0.575	0.538	Non-Tenured:	0.825	0.731
Tenured:	0.383	0.550	Tenured:	0.955	0.650
Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.453	0.423	All:	0.427	0.437
Non-Tenured:	0.275	0.308	Non-Tenured:	0.475	0.346
Tenured:	0.682	0.500	Tenured:	0.500	0.350
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.235	0.167	All:	1.013	0.845
Non-Tenured:	0.225	0.000	Non-Tenured:	0.890	0.846
Tenured:	0.161	0.050	Tenured:	1.205	1.050
Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.184	0.028	All:	0.182	0.113
Non-Tenured:	0.225	0.346	Non-Tenured:	0.175	0.077
Tenured:	0.409	0.000	Tenured:	0.341	1.000
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-0.563	-0.789	All:	-0.019	-0.099
Non-Tenured:	-0.425	-0.231	Non-Tenured:	-0.150	-0.346
Tenured:	-0.205	-0.750	Tenured:	-0.023	0.000
Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	2.503	2.493	All:	2.343	2.563

<i>Non-Tenured:</i>	2.500	2.385	<i>Non-Tenured:</i>	2.225	2.385
<i>Tenured:</i>	2.773	2.950	<i>Tenured:</i>	2.682	2.950

Faculty and staff nonveterans with a veteran within immediate family (Level 1) versus with distant family member or a friend veteran (Level 2)

A comparison to further highlight if a veteran is within the immediate family or part of the distant family or a friend is presented next. Table 7 compares the faculty and staff non-veteran responses of those with veterans within immediate family members to those with a veteran connection through either distant family or friends. This table further highlights what has been seen in Tables 5 and 6. The closer the connection to veterans, the more positive the perception is to student veterans in comparison to civilian students. Again, the largest positive change toward veteran perceptions was within the non-tenured faculty who also had veterans within immediate family members.

Table 7: Responses to Veteran Belief Statements, Based on Role and Level, Updated Data Set with Veterans Excluded and Having a Veteran as an Immediate Family Member Versus Veterans Excluded and Having a Veteran as Distant Family Member (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2024 Level 1 > Vet	2024 Level 2 > Vet	Initiative	2024 Level 1 > Vet	2024 Level 2 > Vet
All:	0.369	0.571	All:	1.108	0.648
<i>Non-Tenured:</i>	0.800	0.538	<i>Non-Tenured:</i>	1.400	0.731
<i>Tenured:</i>	0.250	0.550	<i>Tenured:</i>	1.208	0.650
Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.569	0.423	All:	0.277	0.437
<i>Non-Tenured:</i>	0.600	0.308	<i>Non-Tenured:</i>	-0.100	0.346
<i>Tenured:</i>	0.833	0.500	<i>Tenured:</i>	0.625	0.350
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.246	0.167	All:	1.242	0.845
<i>Non-Tenured:</i>	0.708	0.000	<i>Non-Tenured:</i>	1.267	0.846
<i>Tenured:</i>	0.333	0.050	<i>Tenured:</i>	1.333	1.050
Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.508	0.028	All:	0.277	0.113
<i>Non-Tenured:</i>	0.600	0.346	<i>Non-Tenured:</i>	0.300	0.077
<i>Tenured:</i>	0.750	0.000	<i>Tenured:</i>	0.542	1.000
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-0.308	-0.789	All:	0.077	-0.099
<i>Non-Tenured:</i>	-0.900	-0.231	<i>Non-Tenured:</i>	0.400	-0.346
<i>Tenured:</i>	0.250	-0.750	<i>Tenured:</i>	-0.042	0.000

Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	2.462	2.493	All:	2.092	2.563
Non-Tenured:	2.300	2.385	Non-Tenured:	1.600	2.385
Tenured:	2.625	2.950	Tenured:	2.458	2.950

Faculty and staff nonveterans overall versus faculty and staff nonveterans with Green Zone training

One of the key efforts to better inform faculty and staff on the needs of student veterans and to disprove the general public's perception of veteran biases was to conduct Green Zone training. Green Zone denotes a safe space for troops in a combat zone, therefore a safe space for veterans. The training sessions provide basic knowledge about the resources available for veterans to assist them with the concerns and issues they face when returning to college. Even though the number of faculty and staff that have the availability of Green Zone training and participated within the survey is small, the training generally provided some negative impact on the perceptions of veterans. Based on the previous analysis that highlighted the importance of having veterans within immediate family members, the Green Zone training may have increased (Table 8) the veteran bias that they are more likely to suffer from PTSD, are more likely to be rigid thinkers, less likely to engage in the community, and more likely to have dermal art. This is a key trend to consider when reviewing how/who conducts Green Zone training. The two areas that showed significant improvement in the bias is that veterans are less likely to have been in combat and to expect special recognition.

Table 8: Responses to Veteran Belief Statements, Based on Role and Level, Updated Data Set with Veterans Excluded Versus Veterans Excluded and Having Green Zone Training (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2024 Vet Excluded > Vet	2024 Vet Excluded w/ GZ training > Vet	Initiative	2024 Vet Excluded > Vet	2024 Vet Excluded w/ GZ training > Vet
All:	0.476	0.563	All:	0.838	0.875
Non-Tenured:	0.575	1.000	Non-Tenured:	0.825	1.000
Tenured:	0.383	0.667	Tenured:	0.955	0.373
Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.453	0.563	All:	0.427	0.438
Non-Tenured:	0.275	1.000	Non-Tenured:	0.475	0.500
Tenured:	0.682	1.000	Tenured:	0.503	0.667
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.235	0.625	All:	1.013	2.208
Non-Tenured:	0.225	0.750	Non-Tenured:	0.890	2.333

<i>Tenured:</i>	0.205	0.333	<i>Tenured:</i>	1.205	2.333
Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.184	0.500	All:	0.182	-0.250
<i>Non-Tenured:</i>	0.225	1.500	<i>Non-Tenured:</i>	0.175	-0.250
<i>Tenured:</i>	0.409	0.000	<i>Tenured:</i>	0.341	0.000
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-0.563	-1.250	All:	-0.019	0.125
<i>Non-Tenured:</i>	-0.425	-0.500	<i>Non-Tenured:</i>	-0.150	0.000
<i>Tenured:</i>	-0.205	-0.333	<i>Tenured:</i>	-0.023	-0.333
Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	2.503	1.938	All:	2.343	1.938
<i>Non-Tenured:</i>	2.500	1.750	<i>Non-Tenured:</i>	2.225	1.750
<i>Tenured:</i>	2.773	1.670	<i>Tenured:</i>	2.682	2.333

Faculty and staff nonveterans overall versus faculty and staff nonveterans with no Green Zone training

Even though Green Zone training is slowly becoming more available, most of the participants within the study have not received any Green Zone training. The comparisons in Table 9 highlight this fact in that the positive improvements by those able to participate in Green Zone training (represented in the veteran excluded column) were small and the negative impacts noted above were larger for those without Green Zone training (Table 9).

The Green Zone Training group of faculty and staff were directly compared to those without Green Zone training in Table 10 to drill down further into the observations noted through comparisons within Tables 8 and 9. The positive impacts were smaller for those with Green Zone training, but the enhancement by Green Zone training for a few perceptions were greater such as the veteran bias that they are more likely to suffer from PTSD, less likely to engage in the community, and more likely to have dermal art.

Table 9: Responses to Veteran Belief Statements, Based on Role and Level, Updated Data Set with Veterans Excluded Versus Veterans Excluded and Having No Green Zone Training (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2024 Vet Excluded > Vet	2024 Vet Excluded w/ no GZ training > Vet	Initiative	2024 Vet Excluded > Vet	2024 Vet Excluded w/ no GZ training > Vet
All:	0.476	0.464	All:	0.838	0.833
<i>Non-Tenured:</i>	0.575	0.528	<i>Non-Tenured:</i>	0.825	0.806
<i>Tenured:</i>	0.383	0.366	<i>Tenured:</i>	0.955	1.000

Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.453	0.439	All:	0.427	0.426
Non-Tenured:	0.275	0.194	Non-Tenured:	0.475	0.472
Tenured:	0.682	0.659	Tenured:	0.503	0.488
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.235	0.185	All:	1.013	0.866
Non-Tenured:	0.225	0.167	Non-Tenured:	0.890	0.750
Tenured:	0.205	0.195	Tenured:	1.205	1.122
Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.184	0.144	All:	0.182	0.237
Non-Tenured:	0.225	0.083	Non-Tenured:	0.175	0.222
Tenured:	0.409	0.439	Tenured:	0.341	0.366
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-0.563	-0.475	All:	-0.019	-0.039
Non-Tenured:	-0.425	-0.417	Non-Tenured:	-0.150	-0.167
Tenured:	-0.205	-0.195	Tenured:	-0.023	0.000
Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	2.503	2.575	All:	2.343	2.394
Non-Tenured:	2.500	2.583	Non-Tenured:	2.225	2.278
Tenured:	2.773	2.854	Tenured:	2.682	2.707

Table 10: Responses to Veteran Belief Statements, Based on Role and Level, Updated Data Set with Veterans Excluded and Having Green Zone Training Versus Veterans Excluded and Having No Green Zone Training (Overall means for each category are given in red). When a greater than sign (>) is used, if the expected bias for the veteran is observed then the value would be positive and an unexpected trend would be negative. When a less than sign (<) is used, if the expected bias for the veteran is observed then the value would be negative and an unexpected trend would be positive.

PTSD	2024 Vet Excluded w/ GZ training > Vet	2024 Vet Excluded w/ no GZ training > Vet	Initiative	2024 Vet Excluded w/ GZ training > Vet	2024 Vet Excluded w/ no GZ training > Vet
All:	0.563	0.464	All:	0.875	0.833
Non-Tenured:	1.000	0.528	Non-Tenured:	1.000	0.806
Tenured:	0.667	0.366	Tenured:	0.373	1.000
Organized	> Vet	> Vet	Rigid Thinkers	> Vet	> Vet
All:	0.563	0.439	All:	0.438	0.426
Non-Tenured:	1.000	0.194	Non-Tenured:	0.500	0.472
Tenured:	1.000	0.659	Tenured:	0.667	0.488
Diverse	> Vet	> Vet	Relevant Job Skills	> Vet	> Vet
All:	0.625	0.185	All:	2.208	0.866
Non-Tenured:	0.750	0.167	Non-Tenured:	2.333	0.750
Tenured:	0.333	0.195	Tenured:	2.333	1.122

Educated	> Vet	> Vet	Community	> Vet	> Vet
All:	0.500	0.144	All:	-0.250	0.237
Instructor:	2.000	0.333	Instructor:	-2.000	-0.556
Non-Tenured:	1.500	0.083	Non-Tenured:	-0.250	0.222
Tenured:	0.000	0.439	Tenured:	0.000	0.366
Seek Help	< Vet	< Vet	Dermal Art	< Vet	< Vet
All:	-1.250	-0.475	All:	0.125	-0.039
Non-Tenured:	-0.500	-0.417	Non-Tenured:	0.000	-0.167
Tenured:	-0.333	-0.195	Tenured:	-0.333	0.000
Combat	< Neutral	< Neutral	Expect Spcl Recogn	< Neutral	< Neutral
All:	1.938	2.575	All:	1.938	2.394
Non-Tenured:	1.750	2.583	Non-Tenured:	1.750	2.278
Tenured:	1.670	2.854	Tenured:	2.333	2.707

Comparison for faculty and staff veterans excluded versus those having a Level 1 or Level 2 connection versus those participating in Green Zone training

The final comparison is looking at just the overall means (so not red in table since all are overall means) while comparing faculty and staff nonveterans who have and have not had Green Zone training as well as have a veteran as an immediate family member (Level 1) or a veteran within the distant family member and/or friend (Level 2). For faculty and staff nonveterans, the best perception (Table 11) of veterans is red and bolded while the second-best perception is just red. Please note, having personal contact with a veteran and/or the inclusion of Green Zone training improve the perceptions of veterans versus general stereotypes. Possibly the training should be conducted by faculty and staff with a number of immediate family member veterans.

Table 11: Responses to Veteran Belief Statements, Based on Role and Level, Current Data Set with Veterans Excluded versus Having and Not Having Green Zone Training Versus Having a Veteran as an Immediate Family Member or Having a Veteran as a Distant Family Member/Friend

PTSD	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT	Initiative	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT
Non-Vet	0.476	0.563	0.464	Non-Vet	0.838	0.875	0.833
Level 1		0.182	0.407	Level 1		1.273	1.074
Level 2		1.400	0.507	Level 2		0.000	0.697
Organized	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT	Rigid Thinkers	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT
Non-Vet	0.453	0.563	0.439	Non-Vet	0.427	0.438	0.426
Level 1		0.364	0.611	Level 1		0.364	0.259
Level 2		1.000	0.379	Level 2		0.600	0.424

Diverse	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT	Relevant Job Skills	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT
Non-Vet	0.235	0.625	0.185	Non-Vet	1.013	2.208	0.866
Level 1		0.455	0.204	Level 1		2.300	1.037
Level 2		1.000	0.106	Level 2		2.000	0.758
Educated	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT	Community	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT
Non-Vet	0.184	0.500	0.144	Non-Vet	0.182	-0.250	0.237
Level 1		0.818	0.444	Level 1		0.182	0.296
Level 2		-0.200	0.045	Level 2		-1.200	0.212
Seek Help	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT	Dermal Art	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT
Non-Vet	-0.563	-1.250	-0.475	Non-Vet	-0.019	0.125	-0.039
Level 1		-1.000	-0.167	Level 1		0.182	0.056
Level 2		-1.800	-0.712	Level 2		0.000	-0.106
Combat	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT	Expect Spcl Recogn	Non-veteran	Non-Veteran + GZT	Non-veteran + No GZT
Non-Vet	2.503	1.938	2.575	Non-Vet	2.343	1.938	2.394
Level 1		2.091	2.537	Level 1		2.000	2.111
Level 2		1.600	2.561	Level 2		1.800	2.621

Discussion

Negative perceptions about student veterans can affect how faculty and staff interact with student veterans and non-veteran students, alike. Although this study does not investigate the extent that negative perceptions affect student veteran performance, self-efficacy, and persistence, a sense of belonging is important to academic persistence in STEM and a communal outcome that is acknowledged in many diversity, equity, and inclusion initiatives in higher education [15]. Despite increasing student veteran enrollments in higher education, faculty and staff biases continue to impact student veterans. Student veteran stereotypes can negatively impact their higher education experiences, and this study indicates faculty can unknowingly retain these stereotypes.

Educators must serve the needs of all students to include student veterans who took a much different path to get to the engineering classroom. Faculty and staff must recognize societal views toward student veterans if educators want to advocate for, advise them, and help them to succeed and blossom in the academic classroom. Faculty are entrusted to create learning spaces

and the environment for the success of all students, and therefore best positioned to educate other faculty and staff on these misconceptions. Some key observations from this data suggest:

- 1) More experienced faculty are less likely to believe that most student veterans suffer from PTSD, as compared to their more junior faculty counterparts. The perception of PTSD is lessened further by Green Zone training and having a veteran as an immediate family member.
- 2) Veterans are perceived as more organized and more likely to take the initiative.
- 3) Strong consensus among faculty and staff that veterans are less likely to seek help. So faculty must reach out and encourage student veterans to come to office hours.
- 4) More senior faculty who may interact more or have similar interests (children, age-related activities) do not perceive the student veterans not engaging with the community, probably just in a different way than the traditional college student.
- 5) The data shows that even though it is expected that student veterans will be rigid thinkers, many staff and faculty are more neutral on this perception.
- 6) Clearly faculty and staff see student veterans being more educated.
- 7) Today both student veterans and civilian students are having and displaying more dermal art as a common trend resulting in the perception that veterans have more dermal art is nearly neutral.
- 8) The perception that student veterans have served in combat and expect special treatment as veterans is slightly neutral toward not served in combat nor expecting special treatment.
- 9) A deeper look into the level of the courses (freshman, sophomore, junior, senior, graduate) responding faculty are actually teaching may provide better insight to some of the trends for untenured vs. tenured (assistant professors, instructors, and senior instructors) faculty.

A key insight into the data notes that each of these perceptions are improved toward the positive for the veteran through Green Zone training and having a veteran as an immediate family member. So a key recommendation is to develop Green Zone training, but note the possible biases as well as the possible behavior of some student veterans returning to the classroom. However, the best training could be offered by faculty and staff veterans or faculty and staff with a veteran as an immediate family member. The focus should be on the available resources if a student veteran appears to need them or to inform student veterans of the available resources as well as present the positive aspects within the results that student veterans bring to each and every classroom they are in.

Presenting the positive, and not the negative biases of student veterans while being prepared with resources for the occasional negative student veteran action will ensure student veterans feel they belong in the classroom. It is important to focus on the strengths the student veterans can offer, rather than enhancing the negative biases through training to cause faculty and staff to perceive every negative action that might occur with a student veteran is because the biases are true.

Conclusions and Future Work

The IRB approved survey revealed possible correlations between certain variables (role and level of faculty and staff, availability of green zone training, and whether there is a veteran within the immediate family or even within the distant family or a friend) and perceptions towards veterans. The authors acknowledge that there are opportunities to provide more resolution in each of the areas (number of years in role, number of veterans at institution, whether green zone training is mandatory and how is it conducted to not increase the misperceptions, size of institution, etc.) that can provide more insight. Each of these areas could be a separate study. As the study expands, there is an opportunity to discover how institutional and social dynamics interact with perceptions of veterans' abilities, expertise, and potential as employees. Future research may result in resources to guide veterans toward institutions offering the best educational experience for veterans.

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