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An examination of student veteran education pathways at an American university

Phillip Morris\textsuperscript{a}, Cerian Gibbes\textsuperscript{b} and Steve Jennings\textsuperscript{b}

\textsuperscript{a}Department of Educational Leadership Research & Foundations, University of Colorado at Colorado Springs, Colorado Springs, CO, USA; \textsuperscript{b}Department of Geography and Environmental Studies, University of Colorado at Colorado Springs, Colorado Springs, CO, USA

ABSTRACT

Military veterans are enrolling in higher education at the highest rates since the Second World War. This research seeks to examine how military experiences related to student experiences within the discipline of Geography. We use a survey instrument to measure student motivations, attitudes, and aspirations for declared Geography majors. Given a high presence of military connected students, we then examine the similarities and differences in motivations, attitudes, and aspirations between military connected and non-military students. Findings suggest that there are similarities between military and non-military students with regard to motivating factors for selecting Geography as a major, there are differences with regards to attitudes towards cultural geography, and differences in how students perceive their future interactions with the environment. Differences in demographics and travel experiences also are identified and likely contribute to shaping undergraduate geography experiences. The results offer useful insight on current Geography student needs, and assist faculty and departments in tailoring learning based on student experience.

Introduction

Geography and the military are inseparably linked (Caldwell, Ehlen, & Harmon, 2004; Collins, 1998; Galgano & Palka, 2012; Hansen, 1997; Harmon, Dillon, & Garver, 2004; Marshall, 2015). The military relies on geographic knowledge from terrain analysis to the distribution of people, and has contributed to the advancement of geographic technologies, e.g. remote sensing. Understanding spatial variability is central to geography and is inherent to a multitude of objectives and purposes of the military (Woodward, 2005; Woolley, 1991). Geographers and geographic analysis have played an important role in informing the military’s geographical perspective since the emergence of the United States as a world power. Geographers contributed to military efforts during the Second World War, both on the battlefield and in gathering and disseminating geographic information (Barnes, 2016; Bryan, 2016). After the Second World War the role and contribution of geography to the
Given this history of the intertwined nature of the military and geography, it is reasonable to wonder if a college student with a military background might be predisposed to becoming a geography major. There is little literature that addresses the relationship between veteran/military students in higher education and geography. This study presents a comparison of military connected (MC) students and non-military (NM) students who were declared Geography students. Military connected students include student veterans, active duty military, national guard or reserves, and military spouses (Molina & Morse, 2015). Non-military students are those with no association with current or past military service and not using military education benefits. The purpose of this study was to examine the relationship between military service and enrollment in Geography. Specifically, we compare MC students and NM students in their motivations, past life experiences, relationships with nature and culture, and indicators of geographic thinking such as spatial reasoning, views of education, and the role of life experience from the perspectives of MC and NM students. The following questions provide a framework for this study: (1) Does military experience play a role in whether or not students choose Geography as their major? (2) How does military experience relate to student attitudes to Geography and learning? (3) How does military experience shape career aspirations for Geography students?

The results from this research serve to improve our understandings of what is shaping students’ choice to become a Geography major and how this can in turn be used to better support geography majors and foster their interest in the discipline. Through examining the differences between these two groups, MC and NM, institutions of higher education can better understand the types of course offerings, student support services, and advising techniques that will help veterans and military connected students’ progress and meet their goals.

**Context**

The influx of veterans on college campuses was driven by the passage of the Servicemen’s Readjustment Act of 1944, also known as the G.I. Bill. The intent was to provide economic support for returning veterans and help with the transition from war to civilian life. Economic support was offered in a variety of ways, for example through zero interest home loans, and college tuition. College tuition support through the G.I. Bill is credited with increasing access to post-secondary education, and shaping college campuses (Mettler, 2007). The impact that military service made on Second World War veterans as related to geography is illustrated by a 1947 article about returned veterans at the University of Iowa that states “... [the returning veteran] has been around enough to make subjects like geography tough to teach” (Veterans at college, 1947).

With the advent of the Cold War, geographic analysis remained vitally important and geographers again contributed to intelligence gathering (Barnes & Farish, 2006). The Vietnam era led military geography to be discredited by many geographers (Wisner, 1986). More recently there has been a resurgence of the interaction of geography and the military (Rech, Bos, Jenkings, Williams, & Woodward, 2015). Presently, there is a debate about
the role of military geography in academia (Wainwright, 2016). The military continues to depend on and influence geography (Bryan, 2016; Koopman, 2016).

In many cases the role of military endeavors in our lives sometimes is very subtle, but can influence someone’s perspective (Woodward, 2005). For the United States, an analysis of undergraduate military service members and veterans (military connected) for 2007–2008 gives a general picture of which fields of study undergraduate military students enroll in as compared to undergraduate non-military students (Radford, 2011). This study relies on data from a variety of institutions including community colleges and four-year institutions. In the study non-military students comprised 45% of the sample population. Military connected undergraduates were found to be enrolled in computer and information sciences, engineering, and engineering technology in much higher numbers than their non-military undergraduate counterparts. In the fields of education and health care, non-military undergraduates outnumbered military connected undergraduates. For other fields of study, enrollments were similar between the two groups. In social science, a place where geography frequently, though not exclusively, resides in academia, there was a slight difference between military connected undergraduates and non-military connected undergraduates, with the former group represented by 5% and the latter by 4% (Radford, 2011). In a study of officer training programs at universities in the United Kingdom Woodward, Jenkings, and Williams (2015) found that while it was difficult to categorize the number of students in geography because of the broad subject area classifications used, military connected students were enrolled in larger numbers in physical sciences (which includes physical geography) and social studies (including human geography) when compared to national averages. Neither of these studies provide clearly compelling evidence that military connected students are enrolling at a higher rate in geography than other disciplines. However, the military-geography relationship continues to evolve as the military adapts to modern defense needs, and as the provision of veteran benefits change, i.e. the Post-9/11 G.I. Bill, there is potential for an increase in the rate of veteran enrollment in higher education and for veterans to seek out disciplines that overlap in some way with their prior military experience. These changes in military-geography relationship and veteran benefits warrant further examination with regard to their impact on the discipline of geography and current and future trajectory of the field.

It is the purpose of these introductory paragraphs to briefly present the relationship between the military and academic geographers and to point out the role that geography plays in military operations. While the relationship between the military and academic geographers has changed over time, the fluctuations of this relationship are likely, in many cases, to be independent from the desire of veterans to receive a college education.

**Research setting**

The researchers are drawn to conduct this study due to the high population of active, retired, and separated military members in close proximity to the campus, and high proportional enrollment of MC students in the Geography major. In Spring 2016, 2159 students at Regional Institution (RI) had a direct military connection (as indicated by utilization of veteran/military tuition benefits or on the application). As an indicator of success supporting military connected students, RI has been recognized nationally as a veteran friendly campus by multiple media outlets. This distinction is important as not many campuses will have
similar geographic and military demographic characteristics as RI. Further, study findings and recommendations need to be considered with this unique geographic and enrollment profile in mind.

**Military connected students in geography**

At RI, an institution of approximately 12,000 students, the Department of Geography and Environmental Studies (GES) had 232 GES majors in the 2015 fall semester. Of these majors 49, or 21%, of those students had a connection to the military. The Department of Political Science at RI had the same percentage of military-connected students in a department approximately half the size of GES. Table 1 illustrates the numbers of MC students enrolled at RI by major, for those majors with more than 50 enrolled students, with GES as the major with the highest proportional military enrollment of any large department at the university.

**Research methods**

To address the research questions a web-based questionnaire was administered to the GES student population in the fall 2015 semester. The questionnaire design was guided by similar survey instruments that attempt to gather information on student motivations and first year student success, such as the Cooperative Institutional Research Program (CIRP) First Year surveys developed and administered at the University of California Los Angeles Higher Education Research Institute (Eagan et al., 2015). The survey integrated a combination of question types, including open-ended questions, aimed at gathering information about student demographics, past life experiences, and student defined academic and career intentions. Results from the survey included quantitative and qualitative measures, as such, a mixed methodological approach was used to analyze questionnaire responses. Independent-samples t-tests were conducted to examine student motivations for college enrollment and motivations for GES degree selection.

An additional factor related to this research is the financial stress that can face transitioning military members. Recent studies have found that financial concern and transferring military skills to the civilian world for stable employment rank among the top considerations for veterans re-entering higher education (Cook & Young, 2009; Zoli, Maury, & Fay, 2015). According to the U.S. Bureau of Labor Statistics, recent veterans (Gulf War II) have consistently had higher unemployment rates than non-veterans, and have faced hurdles transitioning skills and credentials earned in the military to civilian sector employment (Bureau of Labor Statistics, 2016; Zoli et al., 2015). While much of the undergraduate student population has concerns about employment, student veterans who are older and have been accustomed to a steady income and full benefits, may have heightened anxiety around

<table>
<thead>
<tr>
<th>Major</th>
<th>Majors</th>
<th>MC majors</th>
<th>Percent MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>GES studies</td>
<td>232</td>
<td>49</td>
<td>21</td>
</tr>
<tr>
<td>Political science</td>
<td>121</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Anthropology</td>
<td>75</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>Biology</td>
<td>52</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>History</td>
<td>216</td>
<td>37</td>
<td>17</td>
</tr>
</tbody>
</table>

*Table 1. Military connected (MC) students enrolled at RI by major.*
financial matters than that of traditional aged college students. The removal of many social services (housing, healthcare, meals) upon leaving the service, may lead student veterans to maximize their GI Bill by taking high credit loads to graduate sooner to seek employment and income to replace that of the government.

We proposed the following set of hypotheses to examine using statistical analysis. The hypotheses were shaped by recent literature regarding the challenges associated with student veteran in higher education (Ackerman & DiRamio, 2009; Hamerick & Rumann, 2012; Molina & Morse, 2015; Zoli et al., 2015) and by anecdotal evidence from classroom experiences with student veterans. Specifically, we test the following:

1. College-going motivations for MC as compared to NM students will be different, and differences will relate to military and life experience.
2. Motivations for choosing Geography as a major for MC students as compared to NM students will differ, with MC students putting strong emphasis on their military experiences and career progression as primary drivers.
3. Life experiences for MC as compared to NM students affect attitudes towards higher education outcomes. For example, we expect to find stronger emphasis on moving back into the workforce for MC students (Zoli et al., 2015).

Analysis of open-ended questionnaire responses was conducted through thematic coding to identify emerging and co-occurring themes. The open-ended questions focused on past experiences in degree selection, post graduate career aspirations, and college going motivations, with the goal of identifying underlying explanations not captured in the quantitative analysis.

Results

Demographics

A total of 67 GES students completed the web-based questionnaire. The division of MC respondent and NM respondents was relatively even, with 29 of the respondents being MC and 35 being NM. RI has a large non-traditional aged student population, which was reflected in the demographics of the respondents. The age distribution was bimodal, with a peak occurring in the 21–24 age bracket and a second peak occurring in the 30–39 age bracket. The 21–24 age bracket was primarily composed of NM students and the 30–39 age bracket predominantly consisted of MC students. The gender distribution of respondents differed for the MC and NM groups. The majority of the MC respondents were male (62%), and the majority of the NM respondents were female (52%). Although nationally there are more male veterans than female veterans, female veterans tend to enroll in higher education at a higher rate than males (Barry, Whiteman, & MacDermid Wadsworth, 2014), yet this is not reflected in the demographics of the questionnaire respondents. Within the MC respondent group all five branches of the military were represented. The largest percentage of the respondents were connected to the Army (62%), followed by the Navy and Air Force (14% each), and then the Marines and Coast Guard (7 and 3% respectively). Commonly identified military career fields for the MC respondents included: combat, operator, technician, and equipment maintenance.
**Hypothesis 1: motivations for college**

To examine the motivations for college enrolment for the study group, independent-samples $t$-tests were conducted. Independent samples $t$-tests are applied to test the hypothesis that a difference in the mean score of the dependent variable is found because of the influence of an independent variable. The dependent variable in this analysis is the mean score on a three point Likert scale representing importance (1 = not important, 2 = somewhat important, 3 = very important) of choosing to attend college (e.g. increased earning potential). The independent variable is whether or not a student is in the military group. Table 2 below illustrates results of the $t$-test comparisons of MC and NM students regarding motivations for college enrolment. The hypothesis here was that MC students would assign stronger importance to re-gaining a financial foothold through earning a degree and securing employment, and assign less importance to growing intellectually through the university experience, measured through questions associated with knowledge acquisition, cultural experiences, and appreciation of ideas. This hypothesis does not intend to suggest that MC students have singular motivations for returning to college, but rather that the emphasis of their motivations may differ from NM based on prior life experiences. For example, it may be possible that a student is motivated both by securing employment and defining a career that is centered on addressing societal problems, however, securing employment is (at the time of the survey) more important to the student.

Student motivations for attending college followed similar patterns for both groups. All mean scores for both groups were between two (somewhat) and three (very) on the importance scale. When asked about importance of culture in deciding to attend college,

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**Table 2. Means for factors affecting importance for attending college.**

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Military-connected ($n = 29$)</th>
<th>Non military ($n = 38$)</th>
<th>$t$</th>
<th>$df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be able to get a better job</td>
<td>2.66 (.55)</td>
<td>2.74 (.45)</td>
<td>−.65</td>
<td>53</td>
</tr>
<tr>
<td>To gain a general education and appreciation of ideas</td>
<td>2.72 (.45)</td>
<td>2.63 (.59)</td>
<td>.73</td>
<td>65</td>
</tr>
<tr>
<td>To make me a more cultured person</td>
<td>2.1 (.86)</td>
<td>2.51 (.62)</td>
<td>−2.1*</td>
<td>64</td>
</tr>
<tr>
<td>To be able to make more money</td>
<td>2.38 (.62)</td>
<td>2.39 (.64)</td>
<td>−.09</td>
<td>65</td>
</tr>
<tr>
<td>To learn more about things that interest me</td>
<td>2.97 (.19)</td>
<td>2.87 (.41)</td>
<td>1.17</td>
<td>65</td>
</tr>
<tr>
<td>To get training for a specific career</td>
<td>2.69 (.47)</td>
<td>2.54 (.56)</td>
<td>1.15</td>
<td>65</td>
</tr>
<tr>
<td>To prepare myself for graduate or professional school</td>
<td>2.36 (.73)</td>
<td>2.05 (.66)</td>
<td>1.74</td>
<td>63</td>
</tr>
<tr>
<td>To use military educational benefits, e.g. GI Bill</td>
<td>2.41 (.82)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. Standard Deviations appear in parentheses below means.*
a significant difference in the mean score of MC ($M = 2.1, SD = .86$) versus NM students ($M = 2.51, SD = .62$) was found; $t (64) = −2.1, p = .03$. Of the motivations for attending college, expanding cultural competence was significantly less important for MC students, the only significant difference found.

With regard to the role of college in preparing for a specific career MC students scored higher ($M = 2.69, SD = .47$) than NM ($M = 2.54, SD = .56$), but there was not a statistically significant difference found regarding the importance; $t (65) = 1.15, p = .70$. Further, MC students scored slightly lower when asked about the importance of college in getting a better job (see Table 2).

**Hypothesis 2: motivations for choosing geography**

For Hypothesis 2, independent-samples $t$-tests were conducted to compare MC students and NM students, in terms of factors associated with choosing Geography as an academic major. The hypothesis here is that military experience and/or life experience related to service yields a difference between MC and NM students as they choose to study geography as a discipline and potential career. Table 3 below presents results of the $t$-test comparisons regarding influences on the selection of the GES major, with significant differences noted.

With regard to factors shaping the selection of Geography as a major, students from both groups didn’t see previous geoscience work as important (both groups responded not important on average). Although, MC students did indicate a relevance of the discipline to prior experiences, as exemplified by the following quote from a MC student “my life experience fit naturally with the degree program”. Additionally, for the MC group, previous military experience was not important in their decision ($M = 1.83, SD = .89$). The MC students also scored, on average, lower than NM students with regard to interest in environmental causes and environmental sustainability. When students were asked to explain what attracted them to the discipline of Geography, the most common response for both groups (MC and NM) centered on the physical environment. However, the context within which the physical environment was referenced was different. The MC students most commonly referred to

<table>
<thead>
<tr>
<th>Table 3. Importance for factors in choosing geography as major.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Military affiliation</strong></td>
</tr>
<tr>
<td><em>Military connected</em></td>
</tr>
<tr>
<td><em>Non military</em></td>
</tr>
<tr>
<td>$t$</td>
</tr>
<tr>
<td>$df$</td>
</tr>
<tr>
<td>Previous experience working in geo-sciences fields</td>
</tr>
<tr>
<td>Military experience</td>
</tr>
<tr>
<td>Interest in travel</td>
</tr>
<tr>
<td>Interest in exploring different cultures</td>
</tr>
<tr>
<td>Interest in environmental causes</td>
</tr>
<tr>
<td>Interest in environmental sustainability</td>
</tr>
</tbody>
</table>

*$p < .05$. Standard Deviations appear in parentheses below means.
the physical environment in terms of “working outdoors”, while NM students tended to refer to “love of nature” and an interest in protecting the environment. For example, a MC student stated “I was attracted to the idea of working outdoors”, while another indicated not wanting “to sit behind a desk”.

When asked about importance of travel opportunities in deciding to choose Geography, a significant difference in the mean score of MC ($M = 2.21$, $SD = .86$) versus NM students ($M = 2.61$, $SD = .68$) was found; $t(65) = −2.12, p = .02$. Similar to the responses for attending college in general, MC students also responded significantly lower with regard to importance of exploring new cultures; $t(65) = −2.62, p = .01$. Travel opportunities were not frequently identified in the open-ended responses as a motivation for selecting GES as a major. Rather, travel was most frequently discussed in students’ responses to prior life experiences.

**Hypothesis 3: past life experiences and attitudes towards geography**

A variety of prior life experiences can influence the selection of a major. To explore this influence, we asked students about the following prior life experience: travel, their relationship with culture, and their relationship with nature.

**Travel**

The reasons for travel and the experiences that are gained from that travel are different from person to person. We recognize that travel as a tourist is far different from the experiences of military personnel stationed in a combat zone. We posed questions that were not related specifically to the type of travel, nor was the data examined in relationship to gender, race, or socio-economic status. We wished to see if any exposure to other places, either domestic or international, had a relationship to choosing geography as a course of study.

To gather information about travel experiences and seeing the world, we asked a series of questions about travel, domestically and internationally. In response to the statement, “Travel opportunity led me to choose Geography”, 71% (27 respondents) from the NM group indicated they strongly agree with the statement, compared to only 48% (14) of the MC students. Explicit disagreement with that statement was indicated by 28% of the MC students, but only 10% of the NM students.

Looking at domestic travel experiences, all students in the sample indicated that they had travelled outside the state boundaries of Colorado. A higher proportion of the NM students had travelled to 10 or more states, but all of the MC group had travelled to at least five states. Figure 1 below illustrates the distribution of travel within the United States for both groups and shows that overall the students who participated in the study have traveled to at least one other state, but that all MC students have had travel experiences in five or more other states.

Looking at international travel, the MC students had considerably more frequent travel experiences. The largest response for MC students was “frequently, having traveled outside the states more than six times” (14 students). For the NM group, the more common answer was “infrequently”, with one to two trips abroad (Figure 2). The regions to which students traveled differed, with many more MC students reported traveling to the Middle East and Asia, while both groups reported, almost evenly, having traveled to regions such as Central America and the Caribbean. Figure 2 does not capture the variation in types of travel work
versus leisure, or the variation that can exist even within one of these categories of travel. It does however, highlight the differences in frequency of travel and regions traveled to by MC and NM students a feature which might be expected given the training and assignments that military families respond to which often necessitate moving frequently and even residing out of the U.S.A.

To understand the nature and duration of international travel researchers asked the question, “How long did you spend (without returning to the US) in the countries visited?” Students responded on a scale of 1 (less than a week) to 7 (over six months). Comparing responses to this question, a significant difference in the mean score for MC ($M = 6$, $SD = 1.67$) versus NM students ($M = 3.29$, $SD = 1.88$) was found; $t(55) = 5.69$, $p = .00$. The MC students have spent considerably more time internationally than the NM students. The students who identified travel as a life experience in their decision to select GES as a major, discussed travel in the context of driving their curiosity in the spatial variation in physical environment and culture. For example, in response to a question asking about their selection of GES as major one student (NM) stated “As I traveled I saw lots of interesting things in nature and when I traveled outside of the US, and even some places inside the states, people were much different ………. I wondered what caused all this to happen?”
Similarly, a MC student similarly stated “[To learn] about why things happen where they do and about the natural world”.

*Relationships with culture*

Aiming to understand the relationship between interest in other cultures and motivations for studying Geography, we included a block of questions about interest in geography as a means for studying other cultures. Additionally, the questionnaire contained one question about Geography as a discipline that will lead to a career interacting with other cultures. When asked if students agreed that Geography presents the opportunity to study other cultures, the NM students responded significantly higher on a five point agreement scale ($M = 4.9, SD = .76$), as compared to MC students ($M = 3.28, SD = .92$); $t (65) = −2.22, p = .029$. Responding to the question about intent to seek a career working or immersing with other cultures, the NM students again responded significantly higher on a five point scale ($M = 4.24, SD = .91$), as compared to MC students ($M = 3.76, SD = .95$); $t (65) = −2.08, p = .041$. In response to open ended questions about future career aspirations, more NM students identified working in a field that supported continued examination of culture and society. One response from a NM student demonstrates this aspiration.
I would like to analyze and make visualizations for large volumes of data pertaining to social phenomena such as the study of language through Twitter or spatial trends in musical and cinematic tastes. I am also interested in the exploration of how politics and culture are reflected/transposed on a landscape.

**Relationships with nature**

Understanding and appreciation for the natural environment has historically been a motivation for students to study Geography (King, 2007; Weeden, 2007). A series of survey questions solicited opinions about relationships with the environment. Table 4 below lists the questions related to interactions with nature and response means, t values, and significance levels.

Examining results of the t-tests for questions related to the environment and nature, the mean scores across the questions for both groups of students was high, with either agree to strongly agree as the average answer, indicating strong interest for all students in the environment. The only response where a significant difference was found was related to careers in the environment. The MC students ($M = 4.31, SD = .71$) responded, on average, lower than the NM students ($M = 4.66, SD = .58$); $t (65) = −2.2, p = .031$, when asked if they agreed with a statement about wanting a career interacting with the environment. The responses to open ended questions concerning the environment provide insight regarding the context within which MC and NM students view the environment and nature as related to Geography. Both MC and NM students identified a love for the environment and nature as a factor shaping their selection of Geography as a major. However, the context within which this occurred differed for the two groups. NM students more frequently referred to their connection to nature from a protectionist perspective, in regard to both the selection of Geography as a major and with regard to future career aspirations. MC referenced the environment from the perspective of being in nature/outdoors, and wanting to “spend time outdoors”. One question where MC students had a higher level of agreement (although not significantly different) was the question about nature and technology. When asked to identify the top career choices the most common response for MC was GIS and remote sensing. The most common response for NM students was “unsure”, followed by “Park/Forest Services” and “Teaching”.

<table>
<thead>
<tr>
<th>Question</th>
<th>Military affiliation</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would like to spend more time outdoors, and Geography as a discipline allows for this</td>
<td>Veterans/military</td>
<td>4.55 (.63)</td>
<td>4.53 (.64)</td>
</tr>
<tr>
<td>I would like a career that allows me to spend time interacting with the environment</td>
<td>Veterans/military</td>
<td>4.31 (.71)</td>
<td>4.66 (.58)</td>
</tr>
<tr>
<td>I consider myself an environmentally conscious person, and Geography as a discipline surrounds me with like-minded people</td>
<td>Non military</td>
<td>3.9 (.9)</td>
<td>4.29 (.8)</td>
</tr>
<tr>
<td>I like the idea of integrating nature and technology, and Geography as a discipline allows for this</td>
<td>Non military</td>
<td>4.45 (.68)</td>
<td>4.26 (.67)</td>
</tr>
</tbody>
</table>

*p < .05. Standard Deviations appear in parentheses below means.
Discussion

Military experience and geography

The results of this work can provide insight into student motivations when selecting Geography as a major. This work also offers a specific examination of MC student motivations for selecting Geography as a major. Although MC students may only represent a small portion of many campus populations, there are certain campus within military towns where the MC population is relatively large. Additionally, changes in future military composition and function may contribute to growing MC populations on many college campuses as service members detach from the military and seek to use their benefits.

Consideration of how military experience shapes a student’s degree decision-making and classroom experience can be used to enhance student experiences in the classroom, within departments, and even at the campus scale. Although MC students can make “geography tough to teach” (Veterans at college, 1947), their prior experience, for example with travel to less visited regions of the world, can be used to enhance classroom conversation and diversify perspectives. However, it is important to understand that MC students have wide variability in their military experiences, associated knowledge, and travel experience. For example, McNulty, Fisher, Hicks, and Kane (2016) estimate that in 2015 there were 78,058 expatriate veterans. There are several reasons that veterans live outside the United States including, for example, lower cost of living, marriage to a foreign national, and disillusion with the United States. These reasons are examples of just a few of the impacts of exposure to other locales. Understanding this variability is important when drawing upon the vastly diverse travel and prior life experiences of this group. For recent military service members, oftentimes travel experiences can consist of extended periods of time in rural areas with limited interaction with local cultures. Alternatively, military travel can provide exposure to dramatically different geographic, cultural, and ecological areas (Galgano & Palka, 2012).

Strategies for understanding the extent of travel and how this may shape expectations in the classroom, and throughout the course of a student’s undergraduate career, include early (first-day or first-week) assignments that require personal mapping and storytelling/sharing with the class. This type of assignment can give faculty a sense of what students have experienced, how these travel experiences shape their views, and provide understanding about the motivations for engaging with the discipline. This also provides potential for MC and NM students to connect based on similar travel experiences, for example travel to the Caribbean and other parts of North America. Fostering these student interactions also provides a space for learning from difference, for example to career aspirations focused on protecting the environment versus working outdoors, which may ultimately lead to a common focus or interest for students and can then be used to facilitate learning in a course or even across multiple courses. There exists a potential difference between NM and MC students’ prior life experience with regard to the presence of work related trauma and its continued impact on an individual. Some MC students, particularly those who have experienced trauma in the line of duty, may be reluctant to share about their international military experiences. Thus, faculty ought to be cognizant of how classroom discussion develops and ensuring that the expectation of sharing is not placed on MC students but rather that exercises allow students to tell about their own experiences and how it relates to their current plans within the discipline.
Findings from this research echo findings from previous research on veterans in higher education (Kim & Cole, 2013; Livingston, Havice, Cawthon, & Fleming, 2011), with student veterans reporting that they have less time and are less likely to engage in activities such as cultural exploration, study abroad, second language acquisition, and immersion. Our findings indicate that MC students had less interest in cultural aspect of Geography and in expanding their cultural experiences as compared to NM students. Additionally, the 2013 report from the American Council on Education (ACE) on university experiences for student veterans (Kim & Cole, 2013), highlights that in classroom discussions student veterans often identify the significance of their life experiences in particular military travel abroad and the technical skills learned while serving. If student veterans, or in our study MC students, perceive themselves as a more cultured and travelled, this may help explain the difference in the assigned importance of expanding cultural competence. The results from this research highlight a higher median age for MC students, and this age difference could contribute to the assigned importance of expanding cultural experiences. Older MC students may have a greater wealth of life experiences, leaving them feeling like this need not be their learning focus during their college career.

Military experience and career aspirations

Based upon findings from extant research on MC students, and anecdotal evidence from classroom/campus interactions, one hypothesis tested in this study was that MC students would place more importance on attending college to increase earning potential and career preparation. Previous research has found that veterans are more likely to be motivated by the need to re-enter the workforce to meet financial obligations (Hamerick & Rumann, 2012). Oftentimes MC students who are returning to the classroom after a prior work experience feel they are behind their traditional college classmates on the life clock, and demonstrate a sense of urgency to earn a degree as a “check-the-box” experience for specific career requirements. The military provides a degree of financial stability and the potential combination of having a family, mortgage and other obligations may intensify the sense of urgency in attaining a credential (Zoli et al., 2015). This assertion was not evidenced in the findings from this study, perhaps due to a more global sense of concern among all college students related to issues such as of increased student debt, stagnant wages, and a lack of quality jobs for recent college graduates. The fact that NM and MC students responded similarly to questions related to importance of career in choosing geography may relate to the fact that military veterans now have a host of non-profit organizations aimed at supporting re-employment and integration. Additionally, broad efforts have been made in both the public and private sector to seek out veterans in the hiring process. The MC connected students at R1 may feel a greater sense of confidence in having targeted services to seek employment post-graduation, given the strong military community surrounding the institution.

With regard to career progression, NM students assigned just as much importance to college outcomes, but they seemed to be more interested in a career establishment, while MC students demonstrated more interest in the college degree as advancing a career that they have already begun. The similarities between the two groups could be due to the demographic characteristics of at R1 in general, where many NM students come from households with lower economic status, or this may result from shifting understandings of the value and purpose of higher education (Saichaie & Morphew, 2014).
A comparison of average ratings of career focus show MC students did, on average, have a stronger career focus. This can have implications for course offerings and advising. For example, MC students only have a certain number of months that can be used for their degree or certificate programs before they exhaust their VA education benefits (e.g. the GI Bill). Given the time parameters, and the fact that MC students using the GI Bill are financially incentivized to maintain full-time enrollment, there may be cause for academic departments to consider embedding career development experiences within courses with high percentages of MC enrollment, or for considering offering independent study courses for MC students who may want to engage in career exploration or internships. For MC students, enrolling in a high credit load and taking an aggressive approach to completing degree requirements may limit exposure to extra-curricular, research, or internship experiences, which can be essential to securing employment or funding for graduate school.

In order to influence and shape pedagogy faculty may consider engaging in cultural trainings related to MC students. Such training programs focused on the perspectives of veterans’ transitional challenges, common service related injuries and their potential implications, issues specifically related to MC connection (e.g. frequently geographic relocation), and strategies for faculty to use in classrooms with MC students. Such training are a core recommendation from ACE (Kim & Cole, 2013), and are increasingly prevalent on university campuses. For example, the Vet Net Ally at California State University Long Beach has, since 2010, expanded to over 35 two and four-year campuses in California and across the United States. This form of faculty engagement not only has the potential to increase awareness of student diversity and diversity within the MC population, but to provide a space for faculty to creatively address pedagogical aspects.

Limitations

Despite this study's aim to inform Geography Departments, it has limitations. The data are cross-sectional, so military and non-military student progress and success in geography fields is not examined over time, therefore nothing in this study aims to compare student success rates of MC and NM students. The response rate was 59% for the MC students (31% of all majors), and the respondents may systematically differ from non-respondents, therefore biasing the results of the survey. For example, the MC students who chose not to respond may have differing views on the impact of military service on academic aspirations, in which case our results may over- or under-estimate the extent of military service impact on college motivations.

An additional limitation relates to the nature of the data collection. The students involved in this study all attend one university in the Western region of the United States. The suggested findings and implications may not be relevant for institutions of higher education in geographic regions or countries differing from the United States. Nonetheless, there are cross-cutting themes to consider for advising and teaching recently separated military members who have participated in the Global War on Terror. For example, recent research on military transitions for British service members indicates similar struggles as those of U.S. veteran with transitioning out of the service, particularly for those veterans who fought in combat and had a more internalized military identity (Binks & Cambridge, 2017; Boerstler, Cook, & Frederick, 2016).
Finally, it is important to point out that none of the questions on the survey administered for this research sought information about service connected disabilities and the impact of injuries in the line of duty. The high percentage of military members who have been injured in the line of duty may have some impact on the responses and views on travel, transition to campus, and intentions for employment (Zoli et al., 2015). The findings, and recommendations based on these findings, should be viewed as suggestive and exploratory than definitive. There is a need for replication and extension of research examining the role of military connection on shaping university experience. In particular, is would be useful for the higher education research community to consider conducting similar research in other settings, for example at universities with differing student population composition, or in other countries.

**Conclusion**

Post-9/11 era veterans are projected to continue rising for another two decades with as many as 3.6 million benefits eligible veterans by 2019 (Department of Veterans Affairs, 2015). With significant additional users of the Post-9/11 G.I. Bill projected, the public investment in our veterans’ educational attainment is high (Barr, 2015). Understanding MC student intentions prior to and after their enrollment are important for providing the right guidance, support, and programmatic direction. This is particularly the case for institutions with large numbers of veterans, but has implications for all higher education institution experiencing a growth in the MC student segment.

When considering this segment of the student body, academics should understand that MC students are mostly male, older, and are more focused on career aspirations with less interest in cultural or intellectual growth. This was found to be the case particularly in geospatial technology classes, where MC students were more likely to enroll (possibly associated with post graduate career aspirations), rather than human/cultural geography classes. This could mean that MC students may need additional incentives and additional effort may be warranted to engage this group in extra-curricular programming or cultural immersion experiences that will expand their cultural competence beyond their military experiences. The identified similarities and differences between MC students and NM students’ motivations and aspirations as related to Geography are also useful to departments and faculty. These similarities suggest that modifications that would benefit MC students may in fact be beneficial to the broader student population. Understanding the student body is critical to designing curriculum and classroom environments that harness the experience of students to promote disciplinary learning, particularly for student groups such as student veterans or other MC students, who may have unique challenges and feel marginalized on campus (Ackerman & DiRamio, 2009). Rather than adapting all programs to suit the needs of the MC students, a change that is not likely or possible within the current political economy of higher education, implications from this research may be that educators increase their attention to getting to know their students, and attempt to learn more about the experiences of their students and adopt this new knowledge within their teaching and educating broadly.

**Disclosure statement**

No potential conflict of interest was reported by the authors.
References


