CAMOUFLAGE IN THE CLASSROOM: AN EMPIRICAL COMPARISON OF
VETERAN COLLEGE STUDENTS WITH THEIR TRADITIONAL AND
NONTRADITIONAL COUNTERPARTS

by

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Camouflage in the Classroom: An Empirical Comparison of Veteran College Students with Their Traditional and Nontraditional Counterparts

Thesis directed by Associate Professor Robert Durham

Student veterans are a unique and growing segment of the college population, and there is very little quantitative research on their perceptions, needs, and characteristics. This study empirically tested themes from qualitative articles as well as replicated results from previous empirical studies with different instruments. A new instrument, the College Student Experiences Scale (CSES) was developed and validated to empirically test what had been derived from previous literature. Veteran, nontraditional, and traditional students did not differ in stress from family, socioeconomic status, prevalence of first-generation student, feelings of isolation, respect toward faculty, cultural experience, need for structure, study skills, or academic interaction with faculty. They did differ in class format preference, importance of school location and cost, ability to relate to other students, frustration with classroom behavior, maturity, leadership, time socializing with peers, and academic stress. These differences were assessed using a combination of previously validated measures and the CSES. Results were discussed in terms of background, environmental, social integration, and academic integration variables.

Keywords: veteran, college, student, transition, academic integration, social integration
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CHAPTER 1
INTRODUCTION

Student veterans are a growing segment of the U.S. undergraduate population, and there is very little current quantitative research regarding their perceptions, needs, and characteristics. The purpose of this study was to empirically test what has been derived from previous qualitative, quantitative, and speculative literature. This was accomplished through the use of previously validated scales as well as the development of an instrument to assess some domains of student life in which veteran, traditional, and nontraditional students are thought to differ. This instrument was developed because there were no appropriate preexisting scales available to test some of the variables of interest. While previous research has provided a good start to understanding student veterans, many of the themes in student veteran literature have yet to be verified quantitatively. This study sought to test some of the conclusions put forth in the qualitative and speculative literature as well as replicate existing quantitative results using different instruments. Without empirical information, the effectiveness of current and future programs aimed at improving the satisfaction and retention of veterans will be unknown. Therefore, the collection of empirical information that verifies current literature could aid colleges and universities in the improvement of their existing programs to better aid the student veteran population. Unless otherwise specified, all of
the literature regarding current student veteran experiences reviewed involves focus
groups, case studies, panels, other qualitative inquiries, or speculations.

The U.S. began providing educational benefits to military members in 1944 to
assist World War II (WWII) veterans following the war (Breedin, 1972). The original GI
bill has been modified over the years, with the most recent version being the Post 9/11 GI
Bill (http://www.military.com/education). Research conducted after WWII indicated that
veterans were doing better than nonveterans in college, even though they entered college
with lower admission scores (Breedin). The current all volunteer military force (AVF)
has not sustained the positive educational and life outcomes enjoyed by WWII veterans.
WWII veterans earned more income than similar nonveterans, but recent veterans do not.
The current AVF service member leaves the military with educational deficits when
compared to others their age, and they do not close this gap over time. The Army has the
largest educational gap compared to their nonmilitary peers, and the Air Force and
Marines have slightly better outcomes. Veterans recently separated from the military
have higher rates of unemployment than similar nonveterans (Wilson, Smith, Lee, &
Stevenson, 2013).

Veteran students are a special population on college campuses. In the present
paper, the term veterans will be used to refer to all former and current active duty,
reserve, and guard military personnel. Although they have always been part of the
student body, there has been a recent increase in the number of veterans enrolling in U.S.
colleges and universities. In 2011, the U.S. Department of Veterans Affairs (VA)
provided benefits for almost one million veterans and beneficiaries (Callahan & Jarrat,
2014). Part of the increase in veteran students is most likely due to the Post-9/11
Veterans Education Assistance Act of 2008 (also referred to as the Post-9/11 GI Bill). This bill can provide up to full tuition, a housing stipend, and textbook allowance (http://www.military.com/education). Because the old Montgomery GI Bill did not provide a living stipend, the new bill is a significant improvement that potentially allows many veterans to attend school full time without having to work off campus.

Although there is a growing undergraduate veteran population, there is very little empirical literature on the success rates of veteran students currently attending U.S. universities. There is a perception that active duty and veteran students are not succeeding in higher education (Callahan & Jarrat, 2014). In 2012, news reports claimed 88 percent of student veterans were dropping out of college in their first year, and only 3 percent were graduating (Briggs, 2012; Wood, 2012). Although the myth that current veterans have extremely low completion rates has persisted, a recent study found that this statistic is incorrect. Student veterans are completing the educational or vocational programs funded by their GI Bills at a rate of 51.5 percent (Cate, 2014). This is similar to civilian students, who have a completion rate of 56.1 percent in six years, however the veteran population takes a longer time (6.3 years) to reach completion. The majority of student veterans are completing their degrees within the traditional student timeline, but a small minority of student veterans is taking much longer. This may be due to deployments, breaks in education, or switching from full to part time study. If a veteran is a reservist or is enrolled in the National Guard, a year long deployment can add up to 20 months to their academic timeline. This could explain, in part, the minority of veteran students who are taking much longer than average to complete their degrees.
Additionally, many veteran students express specific frustrations with their experience in college. The lack of structure (Hollis, 2009) and frustration with other undergraduates’ classroom behavior (Schiavone & Gentry, 2014) are typical complaints. They can also experience difficulty with educational benefits and the lack of transfer credits from the military (Pellegrin, 2013; Vacchi, 2012). Of course, some of the veteran population is struggling with Post Traumatic Stress Disorder (PTSD) as well as Traumatic Brain Injury (TBI). These conditions can affect their ability to concentrate and remain alert (Church, 2009), among other problems. In addition to PTSD and TBI, some veterans have experienced physical injuries that may or may not be visible. If they were exposed to blasts, they might have burns, amputations, or orthopedic injuries (Church).

Even though student veterans face some common challenges, many believe their military background is beneficial to their college experience (Wilson et al., 2013). For example, their previous experience instills focus and a strong work ethic as well as strong leadership skills (Hollis, 2009). Additionally, many veterans feel that they have gained a degree of maturity and global awareness that their traditional student counterparts lack (Schiavone & Gentry, 2014). These skills and previous experiences should help veterans become successful students in a college environment.

Student veterans are a growing undergraduate population with specific needs and characteristics not shared with traditional or nontraditional students, who did not enter college directly after finishing high school. Without knowing which factors most influence their decisions and abilities to complete their degrees, universities cannot effectively improve the satisfaction and subsequent retention of these students. Current literature examining veteran students varies greatly in scope and depth; the following
sections organize this information within a theoretical framework for transition. These sections will highlight some of the ways in which veterans may differ from their traditional and nontraditional counterparts.

Although there is extensive research on the integration and retention of traditional students, and some research on nontraditional students, there is very little that is specific to the veteran population. Tinto (1975) developed the most commonly used model for student persistence. Tinto’s theory states that a student’s level of academic and social integration into college life predicts persistence. Tinto’s model, however, focused on residential students who were also most likely traditional students (Davidson & Wilson, 2013). This theory may not be as useful for analyzing a nontraditional student population. Bean and Metzner (1985) developed a theory of nontraditional student attrition to address the differences between nontraditional and traditional students. Bean and Metzner emphasize both academic variables and environmental variables and minimize the importance of social integration, as many nontraditional students receive their social support elsewhere. Although this model is useful, it might provide an inadequate picture of the student veteran population. To examine how veteran students differ from traditional and nontraditional students, Schlossberg’s Transition model provides a useful structure (Schlossberg, 1981; 2011). This model consists of a framework that breaks down the assets and liabilities individuals bring to a transition. Of course, individuals may not explicitly break down each of these assets and liabilities themselves. The model examines transitions in general and is not specific to transitions to college.
Schlossberg’s Transition model starts by identifying the nature of the transition and determining whether its components are anticipated, unanticipated, or non-event (Goodman, Schlossberg, & Anderson, 2006; Schlossberg, 1981, 2011). A transition can result in changes within relationships, routines, assumptions, and roles, and it can involve subtle changes. Anticipated transitions are expected events, and unanticipated transitions are not scheduled. Non-events are those that one expected but never occurred. The same event could be anticipated or unanticipated for different people, and it can also be viewed as positive or negative by different people. The impact of a transition is less about the event or non-event and more about how much it alters one’s daily life. The more daily life is altered, the more resources it requires and the longer the transition takes. The difference between pre-transition and post-transition environments is one indicator of how difficult the transition will be. While the model is general, it is addressed below in application to the veterans’ transition situations.

The 4 S system (situation, self, support, and strategies) describes the factors that influence a person’s ability to cope during a transition. The factors identified in this system can be assets or liabilities, and the ratio of assets to liabilities can explain why different individuals may react differently to the same transition (Goodman, Schlossberg, & Anderson, 2006; Schlossberg, 1981, 2011).

**Situation**

Situation refers to what transition is happening. It includes factors such as trigger, timing, control, role change, duration, previous experience, concurrent stress, and assessment.
**Trigger.** Trigger identifies what has precipitated the transition. It is the event that caused a given individual’s response (Goodman et al., 2006). The general public seems to think that veterans all attend college for reasons focused on life improvement and earning potential. According to Wilson et al. (2013), veterans express three disparate reasons for choosing to attend college: they joined the military in order to attend college; they attend college for military promotion; they are transitioning from military to civilian life.

Educational benefits are a primary motivation for some people to join the military. Some need the financial support in order to make their goal of college attendance possible (Ackerman, DiRamio, & Mitchell, 2009; DiRamio, Ackerman, & Mitchell, 2008; DiRamio & Jarvis, 2011; Schiavone & Gentry, 2014). While some people join the military for educational benefits, others did not have an interest in attending college prior to joining the military. The military may have instilled this desire (Wilson et al., 2013).

A second motivation for college attendance is military promotion. Service members can earn points toward promotion by completing college courses. However, this motivation may incentivize collecting courses over degree completion (Wilson et al., 2013). The college courses may improve their chance of promotion, but they might not actually be pursuing a degree. Another reason service members take college courses is to retrain for a different career field within the military (Pellegrin, 2013). For example, enlisted soldiers can enter a program called Green to Gold where the Army assists them in obtaining a college degree and commission in order to become an officer (http://www.goarmy.com/rotc/enlisted-soldiers.html).
A third motivation may be the transition from military to civilian life. When a veteran leaves the military, they may want to attend school in order to pursue a second career (Pellegrin, 2013). Callahan and Jarrat (2014) found that veterans are more likely to pursue a degree as a way to change careers than to advance a current career. Other veterans have expressed desires to be good scholastic role models for their children (Wilson et al., 2013). Additionally, if a veteran is unsure of their future career path when separating from the military, the Post 9/11 GI Bill provides housing allowance for full-time students, and this may be a motivating factor resulting in enrollment in some cases (Pellegrin, 2013).

Whatever their trigger, Vacchi (2012) indicates that veterans are more likely to make an intentional decision to attend college than traditional students. This intentionality might contribute to better performance and retention compared to nonveterans. However, veterans may also view the GI Bill as a simple financial support device to facilitate the move to civilian life, with no expectation of completing a degree.

**Timing.** Timing describes where in a person’s timetable a transition occurs. An individual can see a transition happening at a good or bad time or on time or off time. Society sets a certain timetable for life events, and although this is getting more flexible in our culture, many people will assess whether their transition occurred at the “right” time (Goodman et al., 2006). For some veterans, entering college was a planned choice. For others, an external event such as a medical discharge or force shaping (lay offs), might have led them to enter college. If a veteran chose this path and timing intentionally, they may perceive their situation more positively and their timing as better.
If the situation was forced upon a veteran, they may perceive it more negatively and feel that the timing is off (Ryan, Carlstrom, Hughey, & Harris, 2011).

The timing of this transition can also mean that veterans have different concerns than their traditional counterparts. Returning to school rather than enrolling immediately after high school, like traditional students, means that many veterans and nontraditional students have other priorities such as families and jobs (Schiavone & Gentry, 2014). Timing influences these priorities, which in turn influence decisions about how and where to attend school. Many veterans become frustrated with the times courses are offered (not convenient for working adults), frequency of course offerings, and the lack of online courses available (Ford, Northrup, & Wiley, 2009). Some active duty and veteran students need geographic mobility and accommodation for disruptions due to relocation, deployment, and temporary duty (TDY) assignments. This might explain why a disproportionate number of these students pursue online programs (Callahan & Jarrat, 2014).

**Control.** An individual may not have control over the transition they are experiencing. Although the source of some transitions is internal and deliberate, other transitions can be due to external sources and are forced upon the individual. Generally, externally forced transitions are more difficult (Goodman et al., 2006). Veterans may experience a perceived lack of control when they enter college. If they were not well informed about policies regarding granting and transferring credit, they might have to take classes they were not anticipating and earn more credits than they originally planned. They can also experience a lack of control if they are deployed or are required to attend military training during their school year.
Obtaining credit for both college courses taken while serving in the military and military experience itself can be a challenge for veterans. Schools vary in their policies. Many veterans expect to be granted more credits than they are (Barry, Whiteman, & Wadsworth, 2014; DiRamio et al., 2008; Vacchi, 2012). Many training certifications earned in the military do not transfer to college credit (Pellegrin, 2013). Veterans may have to take courses that cover material already learned in a military setting (DiRamio & Jarvis, 2011; Persky & Oliver, 2010). Veterans’ disappointment in the lack of credits they receive may be due to the military setting up unreasonable expectations. Granting more credits might not be in the veteran’s best interest. Sometimes their experience is more applied, and they can be missing fundamentals. If they are admitted to a mid-level class and lack all of the necessary fundamentals, they could be set up for failure (Griffin & Gilbert, 2015). Also, the gap in time between previous school and the current transition can lead to weakened skills, for example, in areas such as math and study skills (DiRamio & Jarvis, 2011). Many veteran students are deficient in academic preparation for college and need refresher courses (DiRamio et al., 2008).

Deployments and temporary duty assignments can be issues that arise in student veterans’ lives over which they have little or no control. Veterans may not know their training requirements in advance, and they may be well into a semester when they are deployed or temporarily absent. Schools do not always have policies to address these situations, which may be left up to an instructor who is not fully informed about how deployments or temporary duty work (Pellegrin, 2013). Some schools can be less than accommodating to veterans’ issues. For example, when a student at one school was deployed, he could not find a staff member in the financial aid office who would address
his financial aid problem caused by the deployment over the phone. They insisted he had to physically come into the office (Ackerman et al., 2009). Veterans may have transition concerns when they come back to school after a deployment due to lapses in student insurance, financial aid complications, and being off-sequence for courses not offered every semester (Rumann & Hamrick, 2010).

**Role Change.** Many transitions involve a role change. This may either be a role gain or a role loss. It can also be positive or negative, and some roles have explicit norms. Roles with norms make for easier transitions (Goodman et al., 2006). In a quantitative study with 94 participants, Dill and Henley (1998) found that nontraditional students tend to have more role conflicts than traditional students, as they generally act in multiple roles. Veterans transitioning into college life may be losing a role (soldier, airman, etc.) and gaining several new roles, such as veteran, civilian, and student. A role change may be more or less drastic depending on military service experience. For example, a person serving in the National Guard is only part-time military and may have significant experience with civilian life. On the other end of the spectrum, a person returning from deployment where they worked all day, every day, for months in an intense military environment may have more role adjustment to do upon entering school (Schiavone & Gentry, 2014). Thus, as with all people, veterans differ.

A change in role from service member to student can be more or less difficult depending on whether the veteran felt comfortable with the restrictions and responsibilities they held in the military. If they did not, the role transition might be easier. The military values discipline, authority, deference to higher rank, and minimized individual expression. These values and skills are often discouraged in higher education
(Ryan et al., 2011). However, young veterans had more responsibility than the average person their age while serving in the military. When they come to college after military service they may have a difficult time earning a similar level of responsibility (Vacchi, 2012).

To successfully adapt to the role of student, veterans must experience a change in mindset, moving from a very structured environment, where they are told what, when, and how to do things, to a much less structured college experience (Livingston, Havice, Cawthon, & Fleming, 2011; Wheeler, 2012). In a quantitative survey of veterans, Elliott, Gonzalez, and Larsen (2011) found that students are expected to determine their own schedule and challenge authority, and this is basically the opposite of military training. The clearly defined structure of military life is a sharp contrast to the less structured college campus environment with no clear chain of command to answer questions (Ackerman et al., 2009). This lack of clarity regarding the proper avenues to raise concerns and complaints can lead veterans to feel that there is a lack of accountability on campus (Griffin & Gilbert, 2015). Veterans can be hesitant to advocate for themselves or question authority because they have experienced situations while serving in the military where they were expected to complete duties without complaint (Callahan & Jarrat, 2014).

This change from highly structured military environments to more fluid college environment also impacts study skills. In the military, one is generally told exactly what someone wants and what is expected. In college there is more guesswork and there is no clear point at which one is done with school work (Rumann & Hamrick, 2010). Relearning study skills after a deployment or time in the military can be an important part
of the adjustment to becoming a student (Ackerman et al., 2009). The military delivers
information in a consistent manner. Learning from military training usually requires
memorization after a lecture or briefing. There is much more variability in methods in
higher education. Style varies from teacher to teacher, and often students have to read
and figure things out for themselves. Lectures may not cover all necessary material
(Jones, 2013), and the correct answers to questions may be contextual or even differ

Another aspect of role change concerns how veterans identify with different roles
they fill and if they choose to disclose these roles to others. There is much diversity
within the student veteran population. Some veterans identify more with their military
experiences, but others may see themselves as more similar to their student peers (Griffin
& Gilbert, 2015). Some veterans hold on to outward signs of their military service, such
as dog tags, bags, and haircuts. They may also discuss their service overtly. Others
assimilate into college life and blend in with their nonmilitary peers (Wheeler, 2012).
Some veterans want to blend in with their peers and become a college student just like
everyone else. This can lead to being reluctant to express opinions about war and politics
in class. Violating the anonymity of a veteran in class can make blending in difficult
(DiRamio et al., 2008). There are a variety of reasons veterans selectively disclose their
veteran status. They may not want to receive preferential treatment. This selective
disclosure and self-reliance can reduce the use of support offered by the institution or
targeted support for veterans (Livingston et al., 2011). On the other hand, Vacchi (2012)
suggests that they may be hesitant to ask for help, and that not identifying as a veteran
can reduce their hesitancy.
Women in particular might experience difficulty with the change in role. They are a minority in the military and are generally the majority in higher education. More than half of traditional undergraduates are female (Radford, 2009), but they make up only 16% of the active duty military (Department of Defense, 2013). They may experience this transition differently than male veterans (Ryan et al., 2011). Women in the military are not encouraged to express their gender. They may feel pressure to be more feminine or more masculine, but either way it is a more forced and conscious expression of gender. When they transition to college, they may be unsure how to express their gender.

Additionally, they are less likely to have same-gender role models than male veterans (Baechtold & DeSawal, 2009). Some women veterans have trouble relating to nonmilitary female peers. The expectations for interaction are different than they experienced in the military (Schiavone & Gentry, 2014). Additionally, Baechtold and DeSawal (2009) found that women do not tend to define themselves as veterans after they separate from service.

Schlossberg’s Transition Theory states that roles with explicit norms are easier transitions, however it does not address acculturation specifically. Bichrest (2013) examined acculturation as an important component to the academic success of veterans. Communicating that there is a predictable process to the transition can assist acculturation. The more a transition is understood, the more aid can be provided.

Veterans learned norms and behaviors to function within the military, and after their service they need to relearn the norms of the new culture to which they are returning. The military is structured and values service, bravery, and obedience. The academic culture is less structured and values education, intellect, and questioning.
**Duration.** Duration refers to permanent or temporary transitions. Uncertainty about duration of a transition can make it more difficult to adapt (Goodman et al., 2006). The transition to college is a temporary change. Individuals can more easily tolerate negative transitions of limited duration. Because this transition has an end date, veterans might be more willing to tolerate changes to their lifestyle such as loss of income or long hours (Ryan et al., 2011).

**Previous Experience.** Previous experience with a similar transition impacts an individual’s experience. If they successfully navigated a similar transition in the past, they may have more confidence in their ability to adapt; however if they had a bad experience with a similar transition they may struggle (Goodman et al., 2006). Veterans have parallels in their transition to the military and their transition to college. Both require adjustment to a new environment with new rules and roles, and both benefit from self-discipline and the ability to deal with pressure. Successful previous transitions can improve current transition experience (Ryan et al., 2011).

**Concurrent Stress.** Concurrent stress examines the number and strength of other stressors the individual is dealing with at the same time as the transition. It is difficult to determine the stressfulness of a transition without taking into account the other stressors that are occurring (Goodman et al., 2006). Balancing work, family, and school can be an obstacle for veterans (Callahan & Jarrat, 2014; Schiavone & Gentry, 2014). The majority of military undergraduates are over 24 years old, and 62 percent have a spouse, a child, or both (Radford, 2009). Nontraditional students perceive different sources of stress than traditional students and tend to be less worried about academic performance and enjoy classes and homework more. Nontraditional students have more responsibility and
obligation at home and spend less time socializing and participating with campus organizations. Traditional students feel more pressure from parents (Dill & Henley, 1998).

For veteran students, educational benefits may not provide enough income to attend college full-time. They may need to balance work and school, especially if they have a spouse or dependents (DiRamio et al., 2008; DiRamio & Jarvis, 2011). Working too much, combined with inadequate academic preparation, can set veteran students up for failure (DiRamio et al., 2008). Additionally, veterans may have difficulty accessing GI Bill benefits (Callahan & Jarrat, 2014; Nichols-Casebolt, 2012). The paperwork can be complicated and time-consuming. The implications of decisions regarding benefits can be unclear, and obtaining information about them can be difficult (Wheeler, 2012). Benefits can be delayed, which can create a financial burden (Griffin & Gilbert, 2015; Livingston et al., 2011). If benefits are delayed, some veterans are forced to pay tuition and other costs out of pocket. They may not have the financial means to do this (DiRamio et al., 2008; Griffin & Gilbert, 2015). For some veterans, educational benefits provide a motivation to succeed in college because they do not want to lose the monetary benefits, such as housing allowance, afforded them by the GI Bill (Wheeler, 2012).

Other military-specific concurrent stressors include psychological concerns such as trouble sleeping due to military experience (Schiavone & Gentry, 2014). Also, many veterans must be ready to return to the military if they are called back to active duty. Even veterans who have been honorably discharged must serve four years on inactive reserve (Ryan et al., 2011).
**Assessment.** Finally, assessment is the individual’s opinion of the transition. They may see it as positive, negative, or benign. This assessment of the transition is based upon many of the previously mentioned situational factors. In the case of student veterans, this could depend on their perception of career prospects, how comfortable they feel with school and their funding situation, as well as whether their decision to get out of the military was intentional, among other factors. Veterans’ assessments would be influenced by their self-efficacy, or confidence in the skill sets they have that impact their ability to successfully navigate the transition. Chemers, Hu, and Garcia (2001) found that academic self-efficacy in first-year college students was directly related to both academic expectations and academic performance, and indirectly related to satisfaction with college life. The subsequent section on self details several of the factors that contribute to veterans’ sense of academic self-efficacy, most importantly the ways in which prior military experience positively influences outlook.

**Self**

Self identifies the factors that an individual brings with them that will influence their transition. It includes characteristics such as gender, age, socioeconomic status, health, psychological resources, and outlook. Psychological resources can include ego development, optimism, self-efficacy, and values. Ego development refers to the level of maturity. For example, people might be self-protective, conformists, conscientious, or autonomous (Goodman et al., 2006). Certain demographic characteristics related to success are fixed factors that cannot be changed; however, factors such as psychological resources and outlook can be changed. According to Livingston et al. (2011), veterans rely heavily on the self resources, such as individual strengths, outlook, and experience in
their transition. They attribute this to the self-sufficiency and pride veterans gained through their military service.

**Demographics.** Veteran students are older than their traditional student counterparts, and many have spouses or children. They generally do not live on campus, and they are financially independent (Radford, 2009). Because they are not transitioning straight out of high school, veterans may need to relearn study skills and may be unprepared for their academic load (Ryan et al., 2011). They may have forgotten basic course content and concepts (Livingston et al., 2011).

In a quantitative study, Durdella and Kim (2012) found that veterans select schools primarily based on financial considerations, not reputation or proximity. However, Wheeler (2012) found that veterans who choose community college are influenced by proximity, flexibility, class size, and remedial help. Some veterans do not have strong enough high school transcripts to be accepted into a four-year institution directly out of the military. This supports the idea that veterans choose their schools based on different criteria than traditional students.

Veterans tend to come from families with lower income than their peers (Durdella & Kim, 2012). They are more likely to be first generation students (DiRamio & Jarvis, 2011). Even if they are not, veterans share some of the same challenges as first-generation students. They may not know where to obtain help, what questions to ask, and how to advocate for themselves in a college environment. They may not be familiar with the language of higher education (Callahan & Jarrat, 2014).

**Health.** Some members of the veteran population are struggling with Post Traumatic Stress Disorder (PTSD), Traumatic Brain Injury (TBI), depression, and/or
physical injuries. These can affect their ability to concentrate and remain alert (Church, 2009; Nichols-Casebolt, 2012; Persky & Oliver, 2010), among other related problems. PTSD can make sitting in class difficult. It can reduce attention span and patience. Combat experience can result in a carryover of anger and stress, and some veterans dislike being in large groups of people. Others cannot sit for extended periods of time and have to walk around the classroom periodically (Ackerman et al., 2009). They may request alternative testing accommodations due to large, compact crowds (Persky & Oliver, 2010). They may appreciate being told ahead of time if alarms are going to sound for a test or may be uncomfortable with closed classroom doors or certain seating arrangements (Pellegrin, 2013). In a quantitative survey of 60 veterans, Persky and Oliver (2010) found that the presence of PTSD predicted greater alienation of veterans on campus. Combat exposure, without the presence of PTSD, predicted greater alienation as well.

Even if they do not suffer from PTSD, some veterans experience stress and tension left over from deployment. They may be uncomfortable in large crowds or uneasy if others walk too closely behind them. They may have short tempers (Rumann & Hamrick, 2010). Insomnia is also a common problem among veterans, especially those who have recently served in combat (Schiavone & Gentry, 2014). Addressing veteran mental and social issues may be the most important thing a school can do to improve the transition process (Griffin & Gilbert, 2015). Untreated or unaddressed physical or psychological disabilities will negatively affect the transition (DiRamio & Jarvis, 2011). Veterans may not seek mental health treatment because of concerns about perceived
weakness, career repercussions, side effects of drugs, and skepticism of effectiveness of treatment (Ryan et al., 2011).

Although PTSD and TBI are important issues in veteran health, the majority of veterans are not suffering from these conditions. Peers and faculty might overestimate the prevalence of conditions such as PTSD among veterans (Baechtold & DeSawal, 2009; Callahan & Jarrat, 2014). This can be frustrating for many veterans, and well-meaning faculty, students, and staff may exacerbate the situation by unsuccessfully trying to be helpful.

**Outlook.** Many veterans believe that their military background is beneficial to their college experience. The structure and discipline veterans experienced in the military aid in studying, organization, and time management in college (Ackerman et al., 2009; Jones, 2013; Schiavone & Gentry, 2014; Wheeler, 2012). Veterans’ previous experience has taught them how to establish goals, balance priorities, focus, and hold themselves accountable (Ackerman et al., 2009; Callahan & Jarrat, 2014; Wilson et al., 2013). Military experience also teaches self-sufficiency, which leads to increased confidence, self-reliance, and pride (Livingston et al., 2011). Previous experience with stressful situations is also helpful (Wheeler, 2012). Many veterans feel that academic life is far less stressful than their responsibilities were in the military, and college seems easy (Schiavone & Gentry, 2014).

Some veterans feel that they are more mature than their peers due to their military experience. They may also feel that they have clearer perspectives on what is important as well as superior goal commitment. Their military experience gives them a broader cultural awareness because they have interacted with many people from different cultures.
and socioeconomic statuses (DiRamio et al., 2008; Rumann & Hamrick, 2010). Because
the military has a very diverse population, veterans have significant experience working
with individuals from different cultures on a regular basis. This contributes to an ability
to work with others who are culturally different from themselves (Ryan et al., 2011).
Although they feel more mature, other students and faculty may not realize the amount of
training and experience veterans have. They might underestimate veterans’ leadership
skills and knowledge (Callahan & Jarrat, 2014).

Support

Support is classified according to its source. Individuals might receive support
from partners, family, friends, and institutions or communities. Support functions to
provide affect, affirmation, aid, or honest feedback. However, some sources of support
may not be useful or may even be detrimental (Goodman et al., 2006). Some existing
programs offering support for student veterans are briefly summarized at the end of this
section.

Sources of support. Relating to peers can be challenging for veterans, especially
when peers are perceived as younger, less respectful, and uninformed or critical of the
military (Persky & Oliver, 2010). They describe many peers as not being serious about
school and complaining about trivial things (Jones, 2013). Many veterans express
frustrations with classroom behavior and asking inappropriate questions. They may
perceive a lack of respect from peers toward both teachers and other veterans (Wheeler,
2012). Veterans feel that they have higher maturity, have traveled more, and have held
more responsibility and leadership positions than their peers. This can lead to irritation
and impatience with nonmilitary students (DiRamio et al., 2008; Livingston et al., 2011).
Veterans are sometimes asked by their peers about their combat experience. Peers also occasionally ask if veterans have killed anyone, and many veterans find this to be a disturbing question (Ackerman et al., 2009; Baechtold & DeSawal, 2009; DiRamio et al., 2008; Rumann & Hamrick, 2010; Ryan et al., 2011). Additionally, peers’ views on war and the military can cause frustration and anger (Wheeler, 2012). Veterans may have problems with insensitivity in the classroom. They may feel ostracized by insensitive comments and antimilitary bias (Persky & Oliver, 2010). Veterans sometimes report upsetting interactions with professors and classroom experiences. For example, some professors have denounced wars and troops in class (DiRamio et al., 2008; Persky & Oliver, 2010). Others did not accommodate missed class due to military orders (Persky & Oliver, 2010). These perceptions and interactions can lead some veterans to feel unwelcome or not supported on campus (Nichols-Casebolt, 2012; Ryan et al., 2011).

Veterans’ offices can provide support by assisting with benefits, providing information, coordinating counseling, and informing faculty and staff about the needs of veterans (Griffin & Gilbert, 2015). Training or hiring staff with knowledge regarding military and veteran experience can also be helpful to veteran students (Pellegrin, 2013).

Many veterans feel they do not have much in common with other undergraduates. They find that others make assumptions about them due to their veteran status. These might be positive or negative stereotypes, but they feel they are treated differently than others (Rumann & Hamrick, 2010). However, they do feel comfortable with other veteran students, as they have more similar life experiences (DiRamio et al., 2008; Griffin & Gilbert, 2015; Livingston et al., 2011). This increased reliance on other student veterans as a means of support can be due to perceptions of campus attitudes toward
veterans (Livingston et al., 2011). Especially during the beginning of a transition out of the military, many veteran students associate more with other veterans than nonveterans (Rumann & Hamrick, 2010). Many veterans have difficulty understanding their nonmilitary peers, however some veterans do not want to associate with other military students. They want to get their education and move on to a new chapter in their life. They do not want to rehash military service with other students or fellow veterans (Jones, 2013). Providing veterans with an opportunity to interact with other veteran students, especially when they do not feel connected to their nonmilitary peers on campus, can provide a needed avenue of support (Griffin & Gilbert, 2015; Livingston et al., 2011). This may be helpful at first, but segregating veterans from the broader campus community might not be best for persistence (DiRamio & Jarvis, 2011). Integration with nonmilitary faculty and peers can also aid veterans if they want to eventually transition to a civilian workplace. This could be achieved by partnering student veteran organizations with other campus organizations for projects (DiRamio & Jarvis, 2011). According to Livingston et al. (2011), veterans underutilize support resources. They tend to find support through interactions with other veterans and faculty, but do not seek out formal support structures. This may be explained in part by the efforts of veterans to blend in with their peers. They may be unwilling to ask for support and feel they need to make the transition alone.

**Emotional support.** Many veterans lost most of their military support network when transitioning (Ryan et al., 2011). The support veterans felt as part of a military unit was team and family-oriented and cooperative in nature. Student life is much more individualistic, with many people looking out for themselves (Schiavone & Gentry,
2014). Some veterans struggle to reconnect with their previous, nonmilitary friends. It can feel as if they have experienced significant changes, while their friends are still the same people they left (Schiavone & Gentry, 2014; Wheeler, 2012). Relationships with family, friends, other veterans, classmates, or faculty can increase support and improve transitions or can serve as additional stressors. (Ryan et al., 2011). Using an electronic survey of 380 participants, Whiteman, Barry, Mroczek, and MacDermid Wadsworth (2013) found that veterans report less peer emotional support than nonveterans in college. Although they gain more peer emotional support as time goes on, they still end up with less peer support than nonveterans. While peer emotional support appears to be related to positive mental health and academic adjustment, this effect is stronger for nonveterans than for veterans.

**Social and academic integration.** Many veterans feel isolated on a college campus. Some feel lonely and disconnected, while others purposefully avoid making friends. Some veterans feel that college is the place to get their education, not the place to socialize and develop friendships (Wheeler, 2012). Many soldiers are not socially integrated with their college campus, nor are they interested in such integration. They are far more academically integrated, as assessed by GPA, studying with peers, and relationships with faculty (Wilson et al., 2013). A link between lack of academic integration and lack of persistence indicates that emphasizing academic integration over social integration for student veterans may be the most efficient use of resources (DiRamio & Jarvis, 2011). In contrast, a study by Durdella and Kim (2012) found that veterans tend to have lower GPAs and lower sense of belonging than their peers. When controlling for demographics (race, age, gender, parental income), major, employment,
and college experiences (extracurriculars, academic interaction), the difference in GPA was still strong, but the sense of belonging was not significantly different. As veterans are older, work more, and are less interested in extracurricular activities, their lack of belonging makes sense. They report more academic interaction and participation, however it is unclear why they still achieve lower GPAs than their peers. Most college transition research focuses on social and academic integration. Although not psychometrically sound, Lemos and Lumadue (2013) found a significant relationship between student veterans’ ratings of a concept they referred to as transitional integration and perceived educational success and GPA. Transitional integration referred to feelings about integration in student led groups, counseling, campus recreation, academic services, and communication with peers.

**Current programs and suggestions for improvement.** Colleges have developed a variety of programs attempting to support veteran students. For example, Virginia Commonwealth University (VCU) developed a program called Green Zone (GZ) for its veteran students (Nichols-Casebolt, 2012). This was modeled on the Safe Zone program for LGBT students. The goal is to train members of the faculty and staff to be supportive and knowledgeable about veteran student issues. This creates a more veteran-friendly environment on campus. All participants are volunteers who can attend the training and will display a logo to indicate that they are military student-friendly. They are trained in topics such as military experience, deployments, transition issues, strategies for improving transitions, and available resources.

Specific suggestions to improve veterans’ transition experiences include modifications to orientation, faculty training, accommodations for deployed students,
establishing veterans’ groups and centers, reexamining transfer credits, tracking veteran students, and demonstrating military appreciation. Offering a specific orientation for veterans, because they have different needs regarding benefits, services, and resources than traditional students could be an improvement (Persky & Oliver, 2010; Wheeler, 2012). These orientations could also be run by veterans, who would be familiar with common transition issues (Ackerman et al., 2009). Schools could also institute training for faculty and staff on sensitive topics. For example, many veterans may not want to be singled out and are not comfortable discussing war (DiRamio et al., 2008; Wheeler, 2012). Also, faculty and staff could discuss PTSD and procedures for making referrals to mental health (DiRamio et al., 2008; Persky & Oliver, 2010). Designating mentor or transition coaches to help with administrative issues, academics, and emotional aspects could also be helpful to veterans (DiRamio et al., 2008).

Next, accommodations for deployed students, such as granting students returning from deployment priority registration for a year in order to maintain course sequences and allowing student email accounts to remain active during deployments to increase connection with the university, could improve transitions (Moon & Schma, 2011). For those who desire connection with peers, veterans’ centers and cohort models could improve sense of belonging (Persky & Oliver, 2010). Student organizations for veterans could help them connect with peers (DiRamio et al., 2008). Even something as simple as a website to connect services or establish a forums for veterans could improve social integration (Livingston et al., 2011). Also, veterans might be more likely to participate in student activities if they are recruited into leadership positions (Wheeler, 2012).
Additionally, restrictions on veteran credit transfer should be reexamined. Specific counselors could be trained as veteran credit transfer specialists in order to grant veterans more generous credit (Persky & Oliver, 2010), as military training terms can be unfamiliar to civilians and specialists could have more information about why particular training can and cannot be transferred. Of course, developing methods to track veteran students could improve their transition experiences. Most institutions do not track the data necessary to understand the causes of veteran student stopout (breaks) or dropout (Callahan & Jarrat, 2014). If they are not tracked or identified, finding effective means of improving their experiences is very difficult. Targeted outreach can be impossible without identification. Even if institutions offer services veterans need, they may not self-identify and therefore the effectiveness of services cannot be assessed (DiRamio et al., 2008; Griffin & Gilbert, 2015; Livingston et al., 2011). Finally, some veterans interpret the nonobservance of Veteran’s Day to be a lack of military appreciation (Livingston et al.).

**Strategies**

Strategies are behaviors employed to prevent, alleviate, or respond to stressful situations. Three types of strategies are to modify the situation, to control the meaning of the situation, or to control the stress. Individuals can do this through action, inhibition of action, information seeking, or mind sets (Goodman et al., 2006).

Strategies include seeking the company of other veterans, forming student groups, strategically disclosing military experiences, and putting the self-discipline and structure they have learned in the military to use in a school environment (Rumann & Hamrick, 2010). Schools can support information seeking in veterans by assisting these students in
navigating campus systems. Clear information helps veteran students make choices regarding their education. Many veterans are not certain about their benefits. Institutions can help veterans through administrative processes and promote degree completion (Griffin & Gilbert, 2015). Institutions can also provide services that make taking direct action easier for veterans. Clear information about where to go to get questions answered and how to navigate the university systems can help veterans take action. Additionally, veteran groups can provide this information to other members (Griffin & Gilbert).

**Present Study**

While veterans are a diverse group of students, their shared experience in the military means that they may differ from other college students in specific ways. The situation, self, support, and strategy factors previously described highlight some of these differences. Using this literature, the present study empirically tested these differences to confirm ways in which veterans differ from traditional and nontraditional students.

The difficulties veteran students encounter during their transitions into college do not occur in isolation. The assets and liabilities they possess, as well as the details of their situations and personal characteristics, can help explain why different individuals cope with this transition differently. On the other hand, Schlossberg’s Transition model highlights some of the similarities in the experiences of many student veterans. These similarities are useful when examining the differences between groups of students on college campuses. There are three disparate student groups on most college campuses and at the University of Colorado Colorado Springs (UCCS) specifically. These groups are traditional students, nontraditional students, and veteran students. In this paper, nontraditional students refer to all nonmilitary students who did not enter college directly.
after finishing high school. The students in each of these groups may possess different skills, goals, and needs. According to Tinto’s theory, a student’s level of academic and social integration into college life predicts persistence (Davidson & Wilson, 2013; Tinto, 1975). When Bean and Metzner (1985) built on this model for nontraditional students, they added background and environmental variables. The current literature indicates that traditional, nontraditional, and veteran students should differ within these categories.

Nontraditional and veteran students have some similar background variables due to the fact that they are older than traditional students. Veterans and nontraditional students tend to have greater obligations at home and stress from family obligations than traditional students (Bean & Metzner, 1985; Dill & Henley, 1998). Although they share some characteristics with nontraditional students, veterans may be distinguished by examining other background variables. Durdella and Kim (2012) found that veteran students come from families with lower income, and DiRamio and Jarvis (2011) found that veterans were more likely to be first generation students. These variables can indicate less familiarity with a college environment and more difficulty navigating the system (Callahan & Jarrat, 2014).

In addition to similarities in background variables, nontraditional and veteran students share some environmental variables. For example, the choice of a particular college is based more heavily on location and financial considerations for these two groups than for traditional students (Durdella & Kim, 2012; Wheeler, 2012). Also, a lack of online and night classes seems to be more frustrating for these groups than for traditional students, most likely due to higher home obligations (Ford, Northrup, & Wiley, 2009).
Veteran students tend to differ from the other two groups with regard to social integration. Social integration is the most important predictor for retention in Tinto’s theory (Davidson & Wilson, 2013). This variable highlights some important differences in the experiences, goals, and perspectives of veteran students compared to traditional students. Veteran students feel more isolated on campus (Wheeler, 2012) and have difficulty relating to their peers (Persky & Oliver, 2010). They may be frustrated with the classroom behavior of peers, and many perceive a lack of respect toward faculty members (Wheeler, 2012). They feel they are more mature and better leaders than traditional peers (Callahan & Jarrat, 2014). Many also express that they have broader cultural experience (DiRamio et al., 2008; Rumann & Hamrick, 2010). These perceived differences set them apart and can impede social integration. Moreover, veterans and nontraditional students tend to spend less time socializing than traditional students (Davidson & Wilson, 2013; Dill & Henley, 1998), sometimes by choice. While traditional students may want to devote time to social relationships in college, some veterans do not feel that socializing is a good use of their time at school (Wheeler, 2012).

Academic integration also highlights the differences between these groups of students. Because they come from a hierarchical military environment, veterans tend to desire a much more structured and disciplined learning environment than their traditional and nontraditional peers (Livingston et al., 2011; Wheeler, 2012). Additionally, they favor clearer expectations from their professors (Rumann & Hamrick, 2010). Many veterans have also experienced a break between schooling and feel less confident in study skills and math skills than traditional students. However, this experience is perhaps shared with other nontraditional students (Ackerman et al., 2009; DiRamio & Jarvis,
Interestingly, although many veterans have not attended school in several years, Schiavone and Gentry (2014) found that they were less stressed about academic life than their peers. Finally, Durdella and Kim (2012) found that veterans had more academic interaction than traditional students.

**Hypotheses**

The first step to improving the experience of veteran students is to understand what sets them apart from the other two groups of students. Much of the research about student veterans has been qualitative, and the goal of this study was to empirically test what had been derived from previous qualitative, quantitative, and speculative literature. Therefore, this study predicted the following hypotheses:

Hypothesis 1: Veteran and nontraditional students will feel more stress from family obligations than traditional students (Bean & Metzner, 1985; Dill & Henley, 1998).

Hypothesis 2: Veteran students grew up in families with lower socioeconomic status than traditional and nontraditional students (Durdella & Kim, 2012).

Hypothesis 3: Veteran students are more likely to be first generation college students than traditional and nontraditional students (DiRamio & Jarvis, 2011).

Hypothesis 4: Veteran and nontraditional students will rank financial considerations and location as more important to their decision to attend their current university than traditional students (Durdella & Kim, 2012; Wheeler, 2012).

Hypothesis 5: Veteran and nontraditional students will express more of a desire for online and evening classes than traditional students (Ford, Northrup, & Wiley, 2009).
Hypothesis 6: Veteran students will feel more isolated on campus than nontraditional and traditional students (Wheeler, 2012).

Hypothesis 7: Veteran students and nontraditional students will feel less able to relate to other students than traditional students (Persky & Oliver, 2010).

Hypothesis 8: Veteran students will be more frustrated with classroom behavior than traditional and nontraditional students (Wheeler, 2012).

Hypothesis 9: Veteran students will be more concerned about disrespect toward faculty members than traditional and nontraditional students (Wheeler, 2012).

Hypothesis 10: Veteran and nontraditional students will feel they are more mature than their traditional student peers (Callahan & Jarrat, 2014).

Hypothesis 11: Veteran students will feel they are better leaders than their traditional and nontraditional student peers (Callahan & Jarrat, 2014).

Hypothesis 12: Veteran students will feel they have broader cultural knowledge than their traditional and nontraditional student peers (DiRamio et al., 2008; Rumann & Hamrick, 2010).

Hypothesis 13: Veteran and nontraditional students will spend less time socializing with their student peers than traditional students (Davidson & Wilson, 2013; Dill & Henley, 1998).

Hypothesis 14: Veteran students desire more structure than traditional and nontraditional students (Livingston et al., 2011; Wheeler, 2012).

Hypothesis 15: Veteran and nontraditional students in their first year will feel less confident about their study skills than first-year traditional students (Ackerman et al., 2009; DiRamio & Jarvis, 2011).
Hypothesis 16: Veteran students feel less academic stress than traditional and nontraditional students (Schiavone & Gentry, 2014).

Hypothesis 17: Veteran students have more academic interaction with faculty than traditional and nontraditional students (Durdella & Kim, 2012).

Hypothesis 18: Reliability of pre-existing scales will be similar to reliability coefficients reported in the literature.
CHAPTER 2

METHOD

Participants

Participants consisted of traditional, nontraditional, and military undergraduate students on the UCCS campus. They were recruited through announcements in psychology classes, emails from the Psychology department and Office of Student Veteran Affairs, and flyers posted throughout campus. They either received credit or were entered into a drawing for a $25 Amazon gift card for participating in the experiment. A total of 289 students participated, with 203 traditional students, 55 nontraditional students, and 31 veteran students. See Table 1 for basic information about the three groups of students.

Materials and Procedure

Participants filled out a survey regarding their experiences at UCCS. This survey included demographic and background measures (see Appendix A), previously validated scales, and a new scale developed for this study, the College Student Experiences Scale (CSES; see Appendix B). Each participant completed the survey in an online format through the Sona system.

While some of the hypotheses were tested with previously validated scales, there were no suitable, existing scales available to test hypotheses regarding frustration with classroom behavior, maturity, ability to relate to other students, study skills, respect
Table 1

Demographic Information

<table>
<thead>
<tr>
<th></th>
<th>Traditional Students</th>
<th>Nontraditional Students</th>
<th>Veteran Students</th>
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<td><strong>Sex</strong></td>
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<tr>
<td>Non-psychology</td>
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<td>58%</td>
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toward faculty, or cultural knowledge. Of course other scales have been developed to
measure latent variables such as maturity or study skills, but none were deemed
appropriate for use with the college student population. A scale encompassing these six
subscales was developed for the purpose of testing these variables.

**Peer-Group Interactions and Interactions with Faculty.** Time spent
socializing with other students was assessed using the Peer-Group Interactions subscale
from the Institutional Integration Scale developed by Pascarella and Terenzini (1980).
Academic interaction was assessed using the Interactions with Faculty subscale. The
Institutional Integration Scale was designed to assess the major dimensions of the Tinto
Institutional Integration Scale has five subscales: Peer-Group Interactions, Interactions with Faculty, Faculty Concern for Student Development and Teaching, and Institutional and Goal Commitments. The response options are on a 5-point Likert scale from 5 (strongly agree) to 1 (strongly disagree). Only two subscales were utilized in the present investigation. The Peer-Group Interactions scale ($\alpha = .84$) consists of seven items that address social integration with peers (e.g., *It has been difficult for me to meet and make friends with other students*). The Interactions with Faculty scale ($\alpha = .83$) consists of five items that address faculty accessibility and informal contact (e.g., *My nonclassroom interactions with faculty have had a positive influence on my career goals and aspirations*). See Appendix C for the two subscales used in this study.

Personal Need for Structure Scale. Students’ desire for structure was assessed using the Personal Need for Structure Scale (PNS) developed by Thompson, Naccarato, and Parker (1992). The PNS was designed to measure preference for structure and clarity and discomfort with ambiguity, and it has demonstrated reliability and convergent and divergent validity with an undergraduate student population (Neuberg & Newsom, 1993). It consists of 12 items with responses on a 6-point scale ranging from strongly disagree to strongly agree. The scale demonstrates good internal consistency ($\alpha = .84$) with item total correlations between .58 and .60 (Thompson, Naccarato, Parker, Moskowitz, & Moskowitz, 2001). See Appendix D for the full scale.

Leader Behavior Description Questionnaire. Students’ opinions of their own leadership qualities were assessed using the Role Assumption Subscale from the Leader Behavior Description Questionnaire (LBDQ) developed by Stogdill & Coons (1957).
The LBDQ XII (http://fisher.osu.edu/research/lbdq) consists of 12 subscales, and the Role Assumption subscale ($\alpha = .80$) contains ten items (Littrell, 2013) that examine how actively an individual exercises leadership roles rather than deferring leadership to others (e.g., *I am hesitant about taking initiative in the group*). Responses are on a 5-point scale ranging from *always* to *never*. Subscales of the LBDQ have been used individually in research (Blank, Weitzel, & Green, 1990). See Appendix E for the subscale used in this study.

**College Stress Inventory.** Students’ stress from family obligations and academic sources was assessed using the Academic subscale from the College Stress Inventory (CSI) developed by Solberg, Hale, Villarreal, and Kavanagh (1993). The CSI consists of 21 items that make up three subscales (academic, social, and financial) using ratings on a 5-point Likert scale ranging from *never* to *always*. The overall scale has adequate internal consistency ($\alpha = .87$), and the Academic subscale ($\alpha = .84$) consists of seven items meant to assess both academic stress (e.g., *Difficulty taking exams.*) and family stress (e.g., *Difficulty trying to fulfill responsibilities at home and at school.*) See Appendix F for the subscale used in this study.

**Sociotropy-Autonomy Scale.** Students’ sense of isolation was assessed using the Independence subscale from the Sociotropy-Autonomy Scale (SAS) developed by Clark and Beck (1991). The SAS consists of 74 items that make up four subscales (Sociotropy, Solitude/Interpersonal Insensitivity, Independence, and Individualistic Achievement) using ratings on a 5-point scale ranging from 0 (*never*) to 4 (*all of the time*). The Independence subscale has acceptable internal consistency ($\alpha = .78$) and consists of 16 items.
items assessing preference for freedom of choice and action (e.g., *It is important to me to be free and independent*). See Appendix G for the subscale used in this study.

**Miville-Guzman Universality-Diversity Scale.** The short form of the Miville-Guzman Universality-Diversity Scale (M-GUDS-S) was used to determine concurrent validity for the cultural knowledge subscale of the CSES. The M-GUDS-S was developed by Fuertes, Miville, Mohr, Sedlacek, and Gretchen (2000) to measure awareness and acceptance of the similarities and differences of others. The M-GUDS-S (α = .77) consists of 15 items. Responses are on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Examples of items include: *Getting to know someone of another race is generally an uncomfortable experience for me* and *Knowing how a person differs from me greatly enhances our friendship*. See Appendix H for the full scale.

**General Self-Efficacy Scale.** The General Self-Efficacy Scale (GSES) was used to determine concurrent validity for the Maturity subscale of the CSES. The GSES was developed by Schwarzer and Jerusalem (1995) to measure a person’s belief in their ability to respond to difficult situations and overcome obstacles. The GSES (α = .86; Scholz, Dona, Sud, & Schwarzer, 2002) consists of ten items with responses on a 4-point Likert scale ranging from 1 (*not at all true*) to 4 (*exactly true*). Examples of items include: *I can always manage to solve difficult problems if I try hard enough* and *I am confident that I could deal efficiently with unexpected events*. See Appendix I for full scale.

**Marlowe-Crowne Social Desirability Scale.** The Marlowe-Crowne Social Desirability Form C (M-C Form C) scale was used to determine divergent validity for the
subsamples of CSES. The M-C Form C is a short form of the full Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) that was developed by Reynolds (1982) to measure social desirability responses in self-report measures. The M-C Form C ($\alpha = .76$) consists of 13 items with responses in a true-false format. Examples of items include: *I sometimes feel resentful if I don’t get my way* and *I am sometimes irritated by people who ask favors of me.* See Appendix J for full scale.

**College Student Experiences Scale.** The CSES was developed for this thesis and it consists of 39 items making up six subscales: Frustration with Classroom Behavior, Maturity, Ability to Relate to Other Students, Study Skills, Respect toward Faculty, and Cultural Knowledge. The Cronbach’s alphas for each subscale as well as convergent and divergent validity are presented below. The scales were administered in the following order: CSES, M-C Form C, Peer-Group Interaction, Interactions with Faculty, PNS, CSI, SAS, GSES, LBDQ, and M-GUD-S. See Appendix B for scale items.
CHAPTER 3

RESULTS

CSES

All CSES subscales were rated from 1 (strongly agree) to 6 (strongly disagree), so lower scores indicate more frustration with classroom behavior, maturity, ability to relate, study skills, respect toward faculty, and cultural knowledge. A Cronbach’s alpha analysis was run on each CSES subscale, and the following items were removed to improve reliability: I do not think students should eat during class from the Frustration with Classroom Behavior subscale, When faced with a difficult problem, I ask my family for advice from the Maturity subscale, My life priorities are similar to my classmates’ life priorities from the Ability to Relate to Other Students subscale, I am comfortable writing a paper from the Study Skills subscale, It is inappropriate to speak with a professor as though they are a peer from the Respect toward Faculty subscale, and I am uncomfortable discussing different religious beliefs and I am comfortable trying unfamiliar foods for the first time from the Cultural Knowledge subscale. Results from a Cronbach’s alpha analysis of the subscales with poor items removed indicated the following reliability for each subscale: Frustration with Classroom Behavior ($\alpha = .75$), Maturity ($\alpha = .74$), Ability to Relate to Other Students ($\alpha = .84$), Study Skills ($\alpha = .64$), Respect toward Faculty ($\alpha = .71$), and Cultural Knowledge ($\alpha = .70$). The Study Skills subscale may benefit from additional items in the future to increase reliability.
Convergent validity was examined for each subscale, and correlations with established scales were as follows: Frustration with Classroom Behavior subscale with the Personal Need for Structure scale, $r = -.33, p < .001$; Maturity subscale with the GSES, $r = -.43, p < .001$; Ability to Relate to Other Students subscale with the Peer-Group Interactions scale, $r = .68, p < .001$; Study Skills subscale with the CSI, $r = .30, p < .001$; Respect toward Faculty subscale with the Interactions with Faculty scale, $r = .20, p = .001$; and Cultural Knowledge with M-GUDS-S, $r = -.55, p < .001$. The correlation between the Respect toward Faculty subscale and the Interactions with Faculty scale is relatively low; however, the Respect toward Faculty subscale does have a stronger correlation with the Sociotropy-Autonomy scale, $r = .30, p < .001$. Although this was unanticipated, it is logical in that higher scores in Respect toward Faculty, which indicate less respect toward faculty, positively correlate with higher scores in autonomy, or independence.

Divergent validity was examined for each subscale, and the correlation between the M-C Form C and each subscale was $r = -.18$ or lower. Although these correlations were statistically significant, they each accounted for less than 3% of the variance and therefore were not meaningful relationships. Divergent validity was established.

Some additional correlations with the subscales were predicted. These were: Maturity subscale with Peer-Group Interactions scale, Maturity subscale with Ability to Relate to Other Students subscale, Ability to Relate to Other Students subscale with SAS, Respect toward Faculty with Frustration with Classroom Behavior, and Peer-Group Interactions with SAS. None of the predicted correlations were above $r = .30$ and
therefore did not demonstrate meaningful relationships. See Tables 2, 3 and 4 for the intercorrelations among the scales.

A principal components factor extraction with promax rotation was performed on the 32 final CSES items for a sample of 267 participants. The principal component analysis indicated six factors. Eigenvalues ranged from 5.12 to 1.32. Factor loadings ranged from .82 to .47. The component correlations ranged from .02 to .25, with the largest correlation accounting for 6% of the variance. Therefore, the scales were considered orthogonal. The low eigenvalues for the later factors are expected, as there are six subscales and there is little variance left after the first few factors were created; however, the Cronbach’s alpha for each subscale was acceptable.

**Hypothesis 1**

Hypothesis 1 predicted that veteran and nontraditional students would feel more stress from family obligations than traditional students and therefore veteran and nontraditional students would score significantly higher than traditional students on a composite score from questions one and three in the CSI. A one-way ANOVA was conducted, and a significant effect of stress from family obligations was not found, $F(2, 278) = 2.41, p = .09, \eta^2 = .017$ (see Table 5).

**Hypothesis 2**

Hypothesis 2 predicted that veteran students grew up in families with lower socioeconomic status than traditional and nontraditional students, and therefore demographic information, as assessed by parental income, would indicate significantly lower SES among veteran students than traditional and nontraditional students. A one-
Table 2

Preexisting and CSES Scale Correlations

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*Note. PNS = Personal Need for Structure, LBDQ = Leader Behavior Description Questionnaire, CSI = College Stress Inventory, SAS = Sociotropy-Autonomy Scale, M-GUD-S = Miville-Guzman Universality-Diversity Scale, GSES = General Self-Efficacy Scale, Faculty = Interactions with Faculty, Peer = Peer-Group Interaction, M-C Form C = Marlowe-Crowne Social Desirability Scale Form C, Frustration = Frustration with Classroom Behavior subscale, Maturity = Maturity subscale, Relate = Ability to Relate to Other Students subscale, Study = Study Skills subscale, Respect = Respect toward Faculty subscale, and Cultural = Cultural Knowledge subscale.

*p < .05. **p < .01. ***p < .001.
Table 3

*CSES Scale Correlations*

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*Note. Frustration = Frustration with Classroom Behavior subscale, Maturity = Maturity subscale, Relate = Ability to Relate to Other Students subscale, Study = Study Skills subscale, Respect = Respect toward Faculty subscale, and Cultural = Cultural Knowledge subscale.*

*p < .05. **p < .01. ***p < .001.*
Table 4

**Preexisting Scale Correlations**

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*Note.* PNS = Personal Need for Structure, LBDQ = Leader Behavior Description Questionnaire, CSI = College Stress Inventory, SAS = Sociotropy-Autonomy Scale, M-GUD-S = Miville-Guzman Universality-Diversity Scale, GSES = General Self-Efficacy Scale, Faculty = Interactions with Faculty, Peer = Peer-Group Interaction, M-C Form C = Marlowe-Crowne Social Desirability Scale Form C

* *p < .05. **p < .01. ***p < .001.
Table 5

*Means and Standard Deviations of Traditional, Nontraditional, and Veteran Student Data*

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<td>3.46</td>
<td>12.11</td>
</tr>
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<td>Hypothesis 16*</td>
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<td>5.25</td>
<td>19.60</td>
</tr>
<tr>
<td>Hypothesis 17</td>
<td>12.05</td>
<td>3.76</td>
<td>12.61</td>
</tr>
</tbody>
</table>

*Note.* * significant ANOVA

way ANOVA was conducted, and a significant difference in SES was not found, $F(2, 284) = 1.75, p = .18, \eta^2 = .012$.

**Hypothesis 3**

Hypothesis 3 predicted that veteran students would be more likely to be first generation college students than traditional and nontraditional students, and therefore demographic information would indicate significantly more first generation veteran students than first generation traditional students. A Pearson Chi-Square test was performed, and there was not a significant association between first generation students and the type of student $\chi^2(2) = 1.38, p = .50$.

**Hypothesis 4**

Hypothesis 4 predicted that veteran and nontraditional students would rate financial considerations and location as more important to their decision to attend their
current university than traditional students, and therefore veteran and nontraditional students would be significantly more likely to indicate “financial” and “location” on demographic questions concerning decisions to attend UCCS. A Fisher’s Exact Test was performed because there was a cell with an expected count below five, and a significant difference was found, \( p = .03 \). Traditional students were more likely to rank financial considerations first and less likely to rank location first than nontraditional and veteran students (see Table 6).

Table 6

<table>
<thead>
<tr>
<th>Most Important Consideration in Decision to Attend UCCS</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Financial</td>
</tr>
<tr>
<td>Location</td>
</tr>
</tbody>
</table>

**Hypothesis 5**

Hypothesis 5 predicted that veteran and nontraditional students would express more of a desire for online and evening classes than traditional students, and therefore veteran and nontraditional students would be significantly more likely to indicate “online” and “evening” on demographic questions concerning class structure preference. A Pearson Chi-Square test was performed, and there was a significant association between the class structure preference and the type of student, \( \chi^2(2) = 12.05, p = .002 \). Specifically, nontraditional students were more likely to prefer night and online formats than traditional and veteran students (see Table 7).
Table 7

*Preferred Class Format*

<table>
<thead>
<tr>
<th>Day</th>
<th>Traditional Students</th>
<th>Nontraditional Students</th>
<th>Veteran Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>91%</td>
<td>73%</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>9%</td>
<td>27%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis 6**

Hypothesis 6 predicted that veteran students would feel more isolated on campus than nontraditional and traditional students, and therefore veteran students would score significantly higher on the SAS than nontraditional and traditional students. The SAS is a scale that measures sociotropy and autonomy with high scores indicating more perceived autonomy. A one-way ANOVA was conducted, and a significant difference on SAS score was not found, $F(2, 264) = 2.00, p = .14, \eta^2 = .015$.

**Hypothesis 7**

Hypothesis 7 predicted that veteran students and nontraditional students would feel less able to relate to other students than traditional students, and therefore veteran students would score significantly higher on the Ability to Relate subscale than traditional students. A one-way ANOVA was conducted, and a significant difference in scores on the Ability to Relate subscale was found, $F(2, 275) = 7.56, p = .001, \eta^2 = .052$. Post hoc comparisons using the Bonferroni test indicated that the mean score for traditional students ($M = 14.32, SD = 4.95$) was significantly lower than the mean scores for nontraditional students ($M = 16.32, SD = 4.94$) and veterans ($M = 17.54, SD = 5.57$). The nontraditional and veteran scores did not significantly differ from each other. This
indicates that the traditional students are better able to relate to other students than both the nontraditional and veteran students.

**Hypothesis 8**

Hypothesis 8 predicted that veteran students would be more frustrated with classroom behavior than traditional and nontraditional students, and therefore veteran students would score significantly lower on the Frustration with Classroom Behavior subscale than traditional and nontraditional students. A one-way ANOVA was conducted, and a significant difference in scores on the Frustration with Classroom Behavior subscale was found, $F(2, 277) = 8.47, p < .001, \eta^2 = .058$. Post hoc comparisons using the Bonferroni test indicated that the mean score for traditional students ($M = 19.11, SD = 5.56$) was significantly higher than the mean score for nontraditional students ($M = 17.41, SD = 4.67$), and both were significantly higher than the mean score for veterans ($M = 14.94, SD = 6.75$). This indicates that the veteran students were the most frustrated by classroom behavior, followed by the nontraditional student, followed by the traditional students.

**Hypothesis 9**

Hypothesis 9 predicted that veteran students would be more concerned about disrespect toward faculty members than traditional and nontraditional students, and therefore veteran students would score significantly lower on the Respect toward Faculty subscale than traditional and nontraditional students. A one-way ANOVA was conducted, and a significant difference in scores on the Respect toward Faculty subscale was not found, $F(2, 276) = 1.42, p = .25, \eta^2 = .01$. The scores in this subscale were slightly skewed. While transformations did reduce problems of skewness, they did not
change the level of significance of the results. Results were therefore reported in raw scores.

**Hypothesis 10**

Hypothesis 10 predicted that veteran and nontraditional students would feel they are more mature than their traditional student peers, and therefore veteran and nontraditional students would score significantly lower on the Maturity subscale than traditional students. A one-way ANOVA was conducted, and a significant difference in scores on the Maturity subscale was found, \( F(2, 280) = 31.93, p = .000, \eta^2 = .186 \). Post hoc comparisons using the Bonferroni test indicated that the mean score for traditional students (\( M = 13.34, SD = 3.82 \)) was significantly higher than the mean score for nontraditional students (\( M = 11.28, SD = 3.88 \)), and both were significantly higher than the mean score for veterans (\( M = 7.74, SD = 3.37 \)). This indicates that the veteran students consider themselves more mature than the nontraditional students, and both consider themselves more mature than the traditional students.

**Hypothesis 11**

Hypothesis 11 predicted that veteran students would feel they are better leaders than their traditional and nontraditional student peers, and therefore veteran students would score significantly higher on the LBDQ than traditional and nontraditional students. A one-way ANOVA was conducted, and a significant difference in scores on the LBDQ was found, \( F(2, 277) = 11.18, p = .000, \eta^2 = .075 \). Post hoc comparisons using the Bonferroni test indicated that the mean score for traditional students (\( M = 33.80, SD = 5.88 \)) was significantly lower than the mean scores for veterans (\( M = 39.03, SD = 6.16 \)). The mean score for nontraditional students (\( M = 35.26, SD = 5.39 \)) was also
significantly lower than the mean score for veterans. This indicates that the veterans feel they are better leaders than the nontraditional and traditional students.

**Hypothesis 12**

Hypothesis 12 predicted that veteran students would feel they have broader cultural knowledge than their traditional and nontraditional student peers, and therefore veteran students would score significantly lower on the Cultural Knowledge subscale than traditional students. A one-way ANOVA was conducted, and a significant difference in scores on the Cultural Knowledge subscale was not found, \( F(2, 274) = 0.16, p = .85, \eta^2 = .001 \).

**Hypothesis 13**

Hypothesis 13 predicted that veteran and nontraditional students would spend less time socializing with their student peers than traditional students, and therefore veteran and nontraditional students would score significantly higher than traditional students on the Peer-Group Interactions scale. A one-way ANOVA was conducted, and a significant difference in scores on the Peer-Group Interactions scale was found, \( F(2, 278) = 7.10, p = .001, \eta^2 = .049 \). Post hoc comparisons using the Bonferroni test indicated that the mean score for traditional students (\( M = 19.00, SD = 4.98 \)) was significantly lower than the mean scores for nontraditional students (\( M = 21.35, SD = 4.40 \)) and veterans (\( M = 21.58, SD = 5.92 \)). The nontraditional and veteran scores did not significantly differ from each other. This indicates that the traditional students spend more time socializing with their student peers than the nontraditional and veteran students.
Hypothesis 14

Hypothesis 14 predicted that veteran students desired more structure than traditional and nontraditional students, and therefore veteran students would score significantly higher on the PNS scale than traditional and nontraditional students. A one-way ANOVA was conducted, and a significant difference in scores on the PNS scale was not found, \( F(2, 273) = 0.17, p = .85, \eta^2 = .001 \).

Hypothesis 15

Hypothesis 15 predicted that veteran and nontraditional students in their first year would feel less confident about their study skills than first-year traditional students, and therefore first-year veteran and nontraditional students would score significantly higher on the Study Skills subscale than first-year traditional students. When the participants were limited to freshman status students, there were 82 traditional students, 2 nontraditional students, and 9 veteran students. There were not enough participants in each group to test the hypothesis. Using all participants, not just freshman, a one-way ANOVA was conducted, and a significant difference in scores on the Study Skills subscale was not found, \( F(2, 279) = 1.87, p = .16, \eta^2 = .013 \).

Hypothesis 16

Hypothesis 16 predicted that veteran students would feel less academic stress than traditional and nontraditional students, and therefore veteran students would score significantly lower on the CSI than traditional and nontraditional students. A one-way ANOVA was conducted, and a significant difference in scores on the CSI scale was found, \( F(2, 276) = 4.82, p = .009, \eta^2 = .034 \). Post hoc comparisons using the Bonferroni test indicated that the mean scores for traditional students (\( M = 20.64, SD = 5.25 \)) and
nontraditional students ($M = 19.60, SD = 6.44$) were significantly higher than the mean score for veterans ($M = 17.32, SD = 6.58$). This indicates that the traditional and nontraditional students experience more stress than the veteran students.

**Hypothesis 17**

Hypothesis 17 predicted that veteran students would have more academic interaction with faculty than traditional and nontraditional students, and therefore veteran students would score significantly lower on the Interactions with Faculty scale than traditional students. A one-way ANOVA was conducted, and a significant difference in scores on the Interactions with Faculty was not found, $F(2, 279) = 0.47, p = .62, \eta^2 = .003$.

**Hypothesis 18**

Hypothesis 18 predicted that reliability coefficients for the Peer-Group Interactions subscale, Interactions with Faculty subscale, Personal Need for Structure scale, LBDQ, CSI, SAS, M-GUD-S, GSES, and M-C Form C would be similar to reported reliability in the literature. All scales produced similar reliability to reported alphas, except for the M-C Form C, which was slightly lower than the reported alpha (see Table 8).
Table 8

*Replicated Reliability*

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<tr>
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<tr>
<td>Interactions with Faculty</td>
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<tr>
<td>LBDQ</td>
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<td>CSI</td>
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<tr>
<td>M-C Form C</td>
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<td>.69</td>
</tr>
</tbody>
</table>

*Note.* PNS = Personal Need for Structure, LBDQ = Leader Behavior Description Questionnaire, CSI = College Stress Inventory, SAS = Sociotropy-Autonomy Scale, M-GUD-S = Miville-Guzman Universality-Diversity Scale, GSES = General Self-Efficacy Scale, and M-C Form C = Marlowe-Crowne Social Desirability Scale Form C.
CHAPTER 4
DISCUSSION

The mixed results from these data paint an interesting picture of the student veteran population. The limited literature on student veterans, as well as popular stereotypes, describe a group with some special skills, but many disadvantages to overcome. Interestingly, many of the hypotheses that were not supported in this paper consist of these disadvantages: stress from family, lower SES, more first generation college students, feeling isolated, needing greater structure, and having poorer study skills. Many of the hypotheses that dealt with variables that could be considered strengths, such as maturity, leadership, and lack of academic stress, were supported. While not all of the results follow this exact pattern, the bigger picture seems to indicate that veteran students may not have the disadvantages many people think they do. The following section will discuss each of the results in greater detail, starting with the development of the CSES and moving on to background, environmental, social, and academic variables.

Results from this study provide psychometric support for the CSES. Internal reliability was acceptable, and each subscale correlated with existing scales for convergent validity. Factor analysis indicated six factors with component correlations all .25 and lower, therefore the subscales can be considered orthogonal. All of the existing scales replicated reliability. These scales were developed on a variety of populations, and
their reliability replicated when completed by the mixture of traditional, nontraditional, and veteran students here at UCCS. The Study Skills subscale, however, might benefit from additional items to boost its internal consistency.

**Background Variables**

Although previous literature indicated that veterans might differ from traditional students on background variables, the current study did not find support for these differences. For example, previous studies indicated that nontraditional students and veterans might be more likely than traditional students to have greater stress from family obligations (Bean & Metzner, 1985; Dill & Henley, 1998). In a quantitative study of 94 students, Dill and Henley (1998) found that nontraditional students reported greater responsibility and obligation at home and speculated that this might increase their stress relative to traditional students. It is possible that the use of two items from the CSI was not a sufficient measure to capture any stress differences from family obligations in this study. It is also possible that although nontraditional and veteran students are likely to have greater obligations and responsibilities at home, their life experience allows them to manage these demands better than a younger person would. Their overall level of stress may be the same as that of a traditional student. They are also more likely than a traditional student to have a partner or spouse to help them manage responsibilities at home.

Previous literature also indicated that veterans are more likely to come from families with lower income (Durdella & Kim, 2012), and they were more likely to be first generation students (DiRamio & Jarvis, 2011). These differences were not found in the current study. However, background variables can hardly be monolithically applied to
diverse populations, and perhaps the veteran population at UCCS is more similar to the rest of the student population than it would be at another university. Also, UCCS has a large number of first generation traditional college students and students who are Pell grant eligible. Durdella and Kim (2012) did assess parental income level using a quantitative measure with a large student population; however, the participants were all students attending University of California campuses. This was not a national sample, and regional income differences between California and Colorado may contribute to the different results. DiRamio and Jarvis (2011) discussed the higher likelihood of veteran students to be first generation students, but this was based on qualitative interviews rather than quantitative data. Personnel cutbacks, the increasingly technical nature of warfare, and the recent U.S. economic downturn may have forced the services to raise their entry standards. As entry standards within the U.S. military continue to rise, gaps in background variables between veterans and nonveterans may grow increasingly narrower (http://money.cnn.com/2013/05/15/news/economy/military-recruiting/).

Environmental Variables

Previous research also indicated that veteran and nontraditional students would place particular importance on the location and financial aspects of a college (Durdella & Kim, 2012; Wheeler, 2012) and would desire more online and night classes (Ford, Northrup, & Wiley, 2009). The importance of location and financial aspects were both themes that emerged from Wheeler’s (2012) case study. The differences in these environmental variables were only partially supported. More traditional students ranked financial considerations as more important than nontraditional and veteran students, but more veteran and nontraditional students ranked location as most important. As many
veterans have access to the GI Bill, and it can be applied to a wide variety of schools and educational opportunities, it is understandable that financial considerations might not be as relevant to this population as location. Ford et al. (2009) describe preference for night and online classes as a theme that emerged from a survey given to veteran students. Although veteran and nontraditional students were expected to prefer online and night classes, only the nontraditional students actually expressed this preference. Demographic information may explain this result. Thirty-six percent of nontraditional students reported being married, while 61% of veteran students reported the same. Thirteen percent of nontraditional students are male, while 55% of veteran students are male. Finally, 30% of nontraditional students have children under 18 while 40% of veteran students have the same. So whereas veteran students are slightly more likely to have children, they are also much more likely to be married and to be male. This indicates they may have more flexibility in schedule and childcare than the typical nontraditional student, and many veterans may not require the availability of online or night classes.

**Social Integration Variables**

Veteran students were expected to differ from other students on a variety of social integration variables. Previous research indicated that they tend to feel more isolated on campus (Wheeler, 2012), have difficulty relating to their peers (Persky & Oliver, 2010), express frustration with the classroom behavior of peers, perceive a lack of respect toward faculty members (Wheeler, 2012), feel they are more mature and better leaders than traditional peers (Callahan & Jarrat, 2014), have broader cultural experience (DiRamio et al., 2008; Rumann & Hamrick, 2010), and tend to spend less time socializing than traditional students (Davidson & Wilson, 2013; Dill & Henley, 1998).
While the data collected supported most of these predictions, there were no significant differences between veterans, nontraditional students, and traditional students on feelings of isolation, disrespect toward faculty, and cultural knowledge. It is surprising that veterans and nontraditional students did not differ on isolation, as they were both less socially integrated, as measured by ability to relate and time spent socializing with peers. On one hand, they may not desire integration with the larger student community and therefore might not feel particularly isolated. On the other hand, the scale used to measure this hypothesis focused more on independence than isolation per se, and might not have been an appropriate measure for this variable. While Wheeler (2012) found support for feelings of isolation in a case study, this was not true of all participants, and some were purposefully isolated because they saw college as a means to an end. Wheeler also found case study support for frustration with lack of respect toward authority, but this was based on interviews with nine student veterans. It is possible that a small, but vocal, part of the veteran student community finds this to be an annoyance. Although respectful behavior towards authority is required as a military member, not all veteran students may see faculty as wielding the same degree of authority as their prior military leadership. Also, many of these student veterans chose to leave the military, and the rigid hierarchy of the military might be something they sought to leave behind.

Rumann and Hamrick (2010) and DiRamio et al. (2008) both highlighted differences in cultural knowledge as a theme that emerged from interviews with student veterans. The lack of differences in cultural knowledge might be due to the fact that the scale measures one’s own perception of cultural knowledge, not any objective difference in actual knowledge. Veteran, nontraditional, and traditional students might not differ in
cultural knowledge, or they might just have similar opinions of their own knowledge while having widely varying differences in experience.

Veteran and nontraditional students were similar in that they were both less able to relate to other students than traditional students, and they both spent less time socializing with student peers than traditional students. Veteran students felt the most frustrated with classroom behavior, followed by nontraditional students, and then traditional students. The same was true of opinions of maturity, with veteran students feeling that they were the most mature, followed by nontraditional students, and then traditional students. Finally, veteran students felt that they were better leaders than either nontraditional or traditional students, who did not differ on leadership. These differences support the idea that veteran students see themselves as a distinct subset of the college population with specific strengths gained from their previous experience. Belief in their maturity and leadership abilities might give them advantages, although these beliefs could set them apart from other students, as would frustration with classroom behavior and being unable to relate to student peers.

**Academic Integration Variables**

Academic integration was the final category in which veterans were expected to differ from other students. Specifically, research indicated that they would desire more structure (Livingston et al., 2011; Wheeler, 2012), be less confident in their study skills (Ackerman et al., 2009; DiRamio & Jarvis, 2011), experience less academic stress (Schiavone & Gentry, 2014), and have more academic interaction (Durdella & Kim, 2012). The only academic variable these three groups of students differed on was academic stress, with veterans feeling less academic stress than either nontraditional or
traditional students. It may be that veteran students’ time in the military taught them how to manage their stress and time effectively, or that their perspective on what types of things are stressful differs from that of nontraditional or traditional students.

Surprisingly, veteran students did not demonstrate a desire for more structure than other groups of students. While some participants expressed this desire in previous literature both in a case study (Wheeler, 2012) and interviews (Livingston et al., 2011), it is possible that many veteran students are looking to escape the structure of a military lifestyle. This could be part of the reason they chose to transition to a civilian university.

The subscale used to assess study skills had a low reliability ($\alpha = .64$) and therefore might not have been sensitive enough to detect differences even if they were present in the population. Ackerman et al (2009) and DiRamio and Jarvis (2011) used interviews and case studies to describe a lower confidence in academic skills such as math and study skills. This might be another theme that only applies to a small group of student veterans. The military strongly encourages soldiers to take classes, and the increasingly technical nature of military specialties could make study skills more necessary, especially for junior enlisted members. It might be that the military offers more foundation for college study than previously thought.

Finally, veterans did not demonstrate more academic interaction than other student peers. The scale used to measure this focused on nonclassroom interactions; however Durdella and Kim (2012) found higher academic interaction in a quantitative study using a scale that emphasized more in-class interaction. This might indicate that while veteran students tend to participate more during class, they do not pursue nonclassroom interactions more than any other group of students.
The overall picture these results paint is that veteran students mostly differ from their nontraditional and traditional counterparts on social variables. From the perspective of Schlossberg’s Transition model (Schlossberg, 1981, 2011), most of the differences occur in the support and self factors. Responses indicate that veterans feel less able to relate to other students and are frustrated with other students’ classroom behavior, both of which impact sources of support during their transition. The fact that veterans report spending less time socializing with their peers than traditional students lends credence to the idea that their social integration and therefore support is impacted. Most of the other differences lie in the outlook portion of the self variable. Veterans see themselves as more mature and better leaders. This might contribute to a reduction in academic stress, but it also might impact their ability to relate to other students.

Limitations

Of course, participants in this study were limited to the UCCS campus, and psychology majors were overrepresented, as the extra credit earned was for psychology classes. Although 37% of the participants were psychology majors, and roughly 10% of the students at UCCS are psychology majors, the remaining 63% of non-majors represent a good cross section. Additionally, only one scale was used to assess each of the hypotheses. Of course, there were far more traditional student participants than nontraditional and veteran students. Ideally, this study would have higher numbers of each, but recruiting high numbers from the smaller nontraditional and veteran populations is challenging.
Future Directions

Future studies should examine the broad conclusions of this paper, such as the lack of support of some widely held beliefs about common disadvantages of student veterans, and see if these conclusions are generalizable and hold at other universities. Also, future studies using longitudinal data need to examine the retention and satisfaction of veteran students, and how that relates to many of the variables tested in this paper. Different universities could use the CSES to assess individual differences among veterans in each of the domains. This could be applicable in detecting which student veterans will be able to use these self-perceived positive attributes to succeed in college. If there are significant relationships between retention and satisfaction and any of the variables examined in this study, this information can be used to design programs to improve student veteran experience.

Additional research is needed to determine whether the differences found in social integration variables, such as ability to relate and time spent socializing with other students, impact student veteran retention and experience negatively. Finding the differences between veteran students who graduate and those who drop out or discontinue their college education would be valuable information. This information could be used to improve any programs aimed at veteran students, and it could include data about both the advantages and disadvantages of the student veteran population. Perhaps student veterans’ perceptions of superior maturity and leadership ability could be used to ease the transition and encourage persistence. Because much of the current information about student veterans is based on studies that have yet to be quantitatively confirmed, this paper and future studies could help clarify which issues apply to the majority of the
student veteran population and which are themes pulled from qualitative data with few participants that are only true for a minority of individuals. Student veterans are a growing segment of the college population, and more accurate information about what makes them unique will be beneficial for future research and programs.
REFERENCES


APPENDIX A

DEMOGRAPHIC AND BACKGROUND QUESTIONNAIRE

Sex: Male  Female


Marital Status: Married  Widowed  Divorced  Separated  Never married

How many children under 18 do you have?  None  1  2  3  4 or more

How many children over 18 do you have?  None  1  2  3  4 or more

Current GPA:  3.5-4.0  3.0-3.4  2.5-2.9  2.0-2.4  1.5-1.9  Less than 1.5

Mother’s highest formal education:  No high school diploma  High school diploma/GED  Technical/vocational training  Some college/Associate’s degree  Bachelor’s degree  Graduate degree

Father’s highest formal education:  No high school diploma  High school diploma/GED  Technical/vocational training  Some college/Associate’s degree  Bachelor’s degree  Graduate degree

Parent’s estimated combined income:  $0-9,999  $10,000-19,999  $20,000-29,999  $30,000-39,999  $40,000-49,999  $50,000-59,999  $60,000-69,999  $70,000-79,999  $80,000-89,999  $90,000-99,999  Over $100,000  Do not know

Most important reason for choosing UCCS:  Financial  Location  Specific degree program  Reputation  Faculty  Veteran-friendly campus  Other

Preferred class format/times:  Daytime  Night  Online

I applied to schools outside of the Pike’s Peak region:  Yes/No
I was accepted at schools outside of the Pike’s Peak region: Yes/No

Choice in attending UCCS: 1st choice 2nd choice 3rd choice 4th choice or lower

Importance of graduating from college: Not at all important somewhat important extremely important

My status is: Freshman Sophomore Junior Senior Non-degree seeking

Major: List of majors plus Undeclared and Non-degree seeking

I entered college directly out of high school: Yes/No

Which of the following are applicable to your living situation? (check all that apply):
- I live alone
- I live with other students
- I live with roommates who are not students
- I live with parent(s), relative(s), or guardian(s)
- I live with my spouse/significant other
- I live with my child/children

I live: On campus Off-campus housing Living at home with family

I applied to: One university (only UCCS) Two universities Three or more universities

I moved to Colorado Springs to attend UCCS: Yes/No

How many hours do you work OFF campus for pay: None 1-10 hrs/wk 11-20 hrs/wk 21-30 hrs/wk More than 30 hrs/wk

How many hours do you work ON campus for pay: None 1-10 hrs/wk 11-20 hrs/wk 21-30 hrs/wk More than 30 hrs/wk

Have you ever served in the US military as an Active Duty, Reserve, and/or National Guard member? Yes/No

In which service(s) did you serve? Air Force Army Marines Navy Coast Guard

What was your highest grade?
E-1 E-2 E-3 E-4 E-5 E-6 E-7 E-8 E-9 WO1 CW2 CW3 CW4 CW5 O-1 O-2 O-3 O-4 O-5

In which component(s) did you serve? Active Duty National Guard Reserve
What age were you when you entered the military? 17-19 20-22 23-26 27-30 30-40

Do you have deployment experience? Yes/No

After leaving active duty service, how soon did you enter college?
0-6 months 7-12 months 2-5 years 6 year or more I did not serve on active duty

What was your primary MOS/AFSC/other military specialty? (write-in)
APPENDIX B

COLLEGE STUDENT EXPERIENCES SCALE (CSES)

*These items were presented in the numbered order, not separated by subscale.*

Please indicate your disagreement/agreement with each of these statements. There are no right or wrong answers.

1 (strongly agree) to 6 (strongly disagree)

Frustration with classroom behavior

2. It bothers me when other students do not pay attention in class.
30. It frustrates me when students do not come to class on time.
5. It bothers me when students have conversations during lecture.
14. I do not think students should eat during class.
25. It is ok for students to leave during lecture. *
4. It does not bother me when other students come to class unprepared.*
15. I do not think other students should use their cell phones during class.

Maturity

9. I am more financially responsible than other college students.
13. I am more independent than most college students.
1. I am more capable of handling basic life challenges than most college students.
7. I feel like I have more life experience than other college students.
12. I know how to deal with other people better than most college students.
31. When faced with a difficult problem, I ask my family for advice. *

Ability to relate to other students

29. I relate easily to my classmates.
3. It is easy to make friends in college.
32. My life priorities are similar to my classmates’ life priorities.
10. I have met many college students with similar interests to me.
36. Other college students have similar values to me.
26. I fit in with other college students.
Study skills
8. I am confident that I can effectively prepare for exams.
27. I use multiple strategies when I study.
33. I am comfortable writing a paper.
16. I take excellent notes in class.
21. I am able to anticipate the types of questions professors will ask on exams.
37. I am confident I understand my teachers’ expectations.

Respect toward faculty
17. Students should be respectful toward their instructors.
34. Students should address instructors by their titles.
23. It is important to make an appointment when you need to speak with a faculty member.
22. It is inappropriate to speak with a professor as though they are a peer.
38. An email to a professor should be written in a professional manner.
18. It is rude to interrupt a professor.
11. It is important to arrive to appointments on time.

Cultural knowledge
35. I am acquainted with people who have very different beliefs than I do.
20. I can get along with people from other cultures.
19. I am comfortable discussing different cultural practices.
6. I am uncomfortable discussing different religious beliefs. *
39. I can work well with people from other backgrounds and cultures.
28. I am comfortable trying unfamiliar foods for the first time.
24. I feel that accommodating different cultural practices is important.

*Reverse scored items
APPENDIX C

INSTITUTIONAL INTEGRATION SCALE:

PEER-GROUP INTERACTIONS SUBSCALE

5 (strongly agree) to 1 (strongly disagree)

1. Since coming to this university I have developed close personal relationships with other students.

2. The student friendships I have developed at this university have been personally satisfying.

3. My interpersonal relationships with other students have had a positive influence on my personal growth, attitudes, and values.

4. My interpersonal relationships with other students have had a positive influence on my intellectual growth and interest in ideas.

5. It has been difficult for me to meet and make friends with other students.

6. Few of the students I know would be willing to listen to me and help me if had a personal problem.

7. Most students at this university have values and attitudes different from my own.
INSTITUTIONAL INTEGRATION SCALE:

INTERACTIONS WITH FACULTY SUBSCALE

5 (strongly agree) to 1 (strongly disagree)

1. My nonclassroom interactions with faculty have had a positive influence on my personal growth, values, and attitudes.

2. My nonclassroom interactions with faculty have had a positive influence on my intellectual growth and interest in ideas.

3. My nonclassroom interactions with faculty have had a positive influence on my career goals and aspirations.

4. Since coming to this university I have developed a close, personal relationship with at least one faculty member.

5. I am satisfied with the opportunities to meet and interact informally with faculty members.
APPENDIX D

PERSONAL NEED FOR STRUCTURE SCALE

Read each of the following statements and decide how much you agree with each according to your attitudes, beliefs, and experiences. It is important for you to realize that there are no “right” or “wrong” answers to these questions. People are difference, and we are interested in how you feel. Please respond according to the following 6-point scale:

1 = strongly disagree   4 = slightly agree
2 = moderately disagree 5 = moderately agree
3 = slightly disagree   6 = strongly agree

1. It upsets me to go into a situation without knowing what I can expect from it.

2. I’m not bothered by things that interrupt my daily routine.*

3. I enjoy having a clear and structured mode of life.

4. I like to have a place for everything and everything in its place.

5. I enjoy being spontaneous.*

6. I find that a well-ordered life with regular hours makes my life tedious.*

7. I don’t like situations that are uncertain.

8. I hate to change my plans at the last minute.

9. I hate to be with people who are unpredictable.

10. I find that a consistent routine enables me to enjoy life more.

11. I enjoy the exhilaration of being in unpredictable situations.*

12. I become uncomfortable when the rules in a situation are not clear.

*items are reverse scored
APPENDIX E

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE (LBDQ XII):

ROLD ASSUMPTION SUBSCALE

DIRECTIONS:
a. READ each item carefully.
b. THINK about how frequently you engage in the behavior described by the item.
c. DECIDE whether you (A) Always, (B) Often, (C) Occasionally, (D) Seldom, or (E) Never act as described by the item.
d. DRAW A CIRCLE around one of the five letters (A B C D E) following the item to show the answer you selected.

A = Always
B = Often
C = Occasionally
D = Seldom
E = Never

e. MARK your answers as shown in the examples below

Example: Often acts as described A B C D E
Example: Never acts as described A B C D E
Example: Occasionally acts as described A B C D E

1. I am hesitant about taking initiative in the group A B C D E
2. I fail to take necessary actions A B C D E
3. I let other persons take away my leadership in the group A B C D E
4. I let some members take advantage of me A B C D E
5. I am the leader of the group in name only A B C D E
6. I back down when I ought to stand firm A B C D E
7. I let some members have authority that I should keep
8. I take full charge when emergencies arise
9. I overcome attempts made to challenge my leadership
10. I am easily recognized as the leader of the group
APPENDIX F

COLLEGE STRESS INVENTORY (CSI): ACADEMIC SUB-SCALE

0 (Never) to 4 (Always)

1. In the last month, how often have you experienced difficulty trying to fulfill responsibilities at home and at school?

2. In the last month, how often have you experienced difficulty taking exams?

3. In the last month, how often have you experienced a fear of failing to meet family expectations?

4. In the last month, how often have you experienced difficulty handling your academic workload?

5. In the last month, how often have you experienced difficulty writing papers?

6. In the last month, how often have you experienced difficulty meeting deadlines for course requirements?

7. In the last month, how often have you experienced difficulty because of feeling a need to perform well in school?
APPENDIX G

SOCIOTROPY-AUTONOMY SCALE (SAS): INDEPENDENCE SUBSCALE

0 (Never) to 4 (All of the time)

1. I would rather take personal responsibility for getting the job done than depend on someone else.

2. I prefer to "work out" my personal problems by myself.

3. It is very important that I feel free to get up and go wherever I want.

4. It is important to me to be free and independent.

5. I prefer learning from my own mistakes rather than being corrected by others.

6. When I have a problem, I like to go off on my own and think it through rather than being influenced by others.

7. I become particularly annoyed when a task is not completed.

8. When I am having difficulty solving a problem, I would rather work it out for myself than have someone show me the solution.

9. I find it particularly annoying if someone interrupts me when I am working on a project.

10. It bothers me when people try to direct my behavior or activities.

11. I am particularly critical of myself when I fail to complete a task.

12. I am reluctant to ask for help when working on a difficult and puzzling task.

13. I feel more comfortable helping others than receiving help.

14. I prefer to act quickly and decisively in order to get the job done.

15. I often think that I can accomplish more in a shorter period of time than is realistic.

16. In relationships, people often are too demanding of each other.
APPENDIX H

MIVILLE-GUZMAN UNIVERSALITY-DIVERSITY SCALE (SHORT FORM)

1 (Strongly disagree) to 6 (strongly agree)

1. I would like to join an organization that emphasizes getting to know people from different countries.

2. I would like to go to dances that feature music from other countries.

3. I often listen to the music of other cultures.

4. I am interested in learning about the many cultures that have existed in this world.

5. I attend events where I might get to know people from different racial backgrounds.

6. Persons with disabilities can teach me things I could not learn elsewhere.

7. I can best understand someone after I get to know how he/she is both similar and different from me.

8. Knowing how a person differs from me greatly enhances our friendship.

9. In getting to know someone, I like knowing both how he/she differs from me and is similar to me.

10. Knowing about the different experiences of other people helps me understand my own problems better.

11. Getting to know someone of another race is generally an uncomfortable experience for me.

12. I am only at ease with people of my own race.

13. It’s really hard for me to feel close to a person from another race.

14. It is very important that a friend agrees with me on most issues.

15. I often feel irritated by persons of a different race.
APPENDIX I

GENERAL SELF-EFFICACY SCALE

1 (not at all true)  2 (barely true)  3 (moderately true)  4 (exactly true)

1. I can always manage to solve difficult problems if I try hard enough.

2. If someone opposes me, I can find means and ways to get what I want.

3. It is easy for me to stick to my aims and accomplish my goals.

4. I am confident that I could deal efficiently with unexpected events.

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.

6. I can solve most problems if I invest the necessary effort.

7. I can remain calm when facing difficulties because I can rely on my coping abilities.

8. When I am confronted with a problem, I can usually find several solutions.

9. If I am in a bind, I can usually think of something to do.

10. No matter what comes my way, I’m usually able to handle it.
APPENDIX J

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE FORM C

True/False

1. It is sometimes hard for me to go on with my work if I am not encouraged.

2. I sometimes feel resentful when I don’t get my way.

3. On a few occasions, I have given up doing something because I thought too little of my ability.

4. There have been times when I felt like rebelling against people in authority even though I knew they were right.

5. No matter who I’m talking to, I’m always a good listener.

6. There have been occasions when I took advantage of someone.

7. I’m always willing to admit it when I make a mistake.

8. I sometimes try to get even rather than forgive and forget.

9. I am always courteous, even to people who are disagreeable.

10. I have never been irked when people expressed ideas very different from my own.

11. There have been times when I was quite jealous of the good fortune of others.

12. I am sometimes irritated by people who ask favors of me.

13. I have never deliberately said something that hurt someone’s feelings.
APPENDIX K

University of Colorado
Colorado Springs
Institutional Review Board (IRB) for the Protection of Human Subjects

Date: 1/19/2016

IRB Review

IRB PROTOCOL NO.: 16-117
Protocol Title: Comparison of Veteran, Nontraditional, and Traditional Students
Principal Investigator: Nicole Norelli
Faculty Advisor if Applicable: Robert Durham
Application: New Application
Type of Review: Expedited
Risk Level: No more than Minimal Risk
Renewal Review Level (If changed from original approval) if Applicable: N/A No Change
This Protocol involves a Vulnerable Population: N/A (No Vulnerable Population)
Expires: 17 January 2017

*Note, if exempt: If there are no major changes in the research, protocol does not require review on a continuing basis by the IRB. In addition, the protocol may match more than one review category not listed.

Externally funded: ☐ No ☐ Yes
OSP #: Sponsor:

Thank you for submitting your Request for IRB Review. The protocol identified above has been reviewed according to the policies of this institution and the provisions of applicable federal regulations. The review category is noted above, along with the expiration date, if applicable.

Once human participant research has been approved, it is the Principal Investigator's (PI) responsibility to report any changes in research activity related to the project:

- The PI must provide the IRB with all protocol and consent form amendments and revisions.
- The IRB must approve these changes prior to implementation.
- All advertisements recruiting study subjects must also receive prior approval by the IRB.
- The PI must promptly inform the IRB of any unanticipated serious adverse event (within 24 hours). All unanticipated adverse events must be reported to the IRB within 1 week (see 45CFR46.105(b)(5)). Failure to comply with these federally mandated responsibilities may result in suspension or termination of the project.
- Renew study with the IRB prior to expiration.
- Notify the IRB when the study is complete

If you have any questions, please contact Research Compliance Specialist in the Office of Sponsored Programs at 719-255-3503 or irb@uccs.edu

Thank you for your concern about human subject protection issues, and good luck with your research.

Sincerely yours,

Melissa J. Benton
Melissa Benton, PhD
IRB Committee Member

www.uccs.edu/researchcompliance/
Version 2/12/13
1420 Austin Bluffs Parkway Colorado Springs, CO 80918

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