THE CORRELATION OF SOCIAL, FINANCIAL, AND ACADEMIC SUPPORTS TO

MILITARY BENEFIT RECIPIENTS' PERSISTENCE IN COLLEGE

by

Bruce Duane Mentzer

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

This study sought to determine the strength and nature of the relationships between social, academic, and financial support and the intent of military students to persist in higher education at a large private non-profit university. The study also collected data from nonmilitary students to note contrasting relationships and looked at overall results for the two groups combined. Multivariate stepwise models confirmed the emphasis on academic support for persistence towards degree completion with all groups. Financial aid affects varied by military, nonmilitary, and for the overall population; military students were negatively impacted by loans, nonmilitary by university scholarships, and the overall sample by government grants and aid. Lastly, an overarching and strong relationship was noted as an additional finding in this study for institutional support for military, nonmilitary, and combined groups.

Descriptors: Military students, veterans, support services, persistence, higher education, GI Bill, academic support, financial support, social support, resilience

Dedication

This study is dedicated to my family. I want to especially direct this dedication to my wife and greatest encouragement, Dr. Michelle Mentzer. Let's continue to teach, lead, travel, and play as long as possible!

Acknowledgements

ὁ δὲ εἶπεν αὐτοῖς, Διὰ τοῦτο πᾶς γραμματεὺς μαθητευθεὶς τῇ βασιλείᾳ τῶν οὐρανῶν ὅμοιός ἐστιν ἀνθρώπῳ οἰκοδεσπότῃ, ὅστις ἐκβάλλει ἐκ τοῦ θησαυροῦ αὐτοῦ καινὰ καὶ παλαιά. (Matthew 13:52 UBS4-T)

He [Jesus] said, "Then you see how every student well-trained in God's kingdom is like the owner of a general store who can put his hands on anything you need, old or new, exactly when you need it." (Matthew 13:52 MESSAGE)

I am deeply grateful to the greatest teacher of all—the Lord himself. He leaves me with the commission above (maybe the greatest commission for an educator) and it is my hope that I can continue to throw out the treasures of truth, old and new—gems of story, encouragement, loving correction, and imagination.

My instructors at Liberty, too many to mention, deserve every praise. Dr. Black, Dr. Spohn, and Dr. Alexson patiently lifted me up over copious cups of coffee. And Dr. Watson, Dr. Holland, Dr. Parker, Dr. Szapkiw, and the late Dr. Jill Jones along with so many others put up with me sneaking chocolate and espresso into conferences and lectures. Special mention should be made of Dr. Nettie Perry-Adams and her husband, Ben; your encouragement always came at just the right time. You are all teaching saints.

My family must be acknowledged here as well. The gems of my life, my daughters, have brought me more encouraging ideas than I can recount. My wife, the diamond of my life, cannot be thanked enough for her keen mind and powerful words. To my parents, I owe my love for school and constant contribution to the community. To my in-laws, brothers, sisters, the church (especially Erik Brandt, Kevin Kennedy, and Kim McClure), and fellow Sailors, Marines, and Soldiers, I celebrate you every day. Thank-you all, fair winds and following seas.

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List of Abbreviations

College Persistence Questionnaire (CPQ)

Grade Point Average (GPA)

Government Issue Bill or the Educational Benefits of the Servicemen's Readjustment Act of 1945 (GI Bill)

Military Affairs Programs (MAP)

Military Spouse Career Advancement Accounts (MyCAA)

Montgomery GI Bill (MGIB)

National Center for Educational Statistics (NCES)

Nation Survey of Student Engagement (NSSE)

Operation Enduring Freedom (OEF)

Operation Iraqi Freedom (OIF)

Post Traumatic Stress Disorder (PTSD)

Reserve Officers Training Corps (ROTC)

Tuition Assistance (TA)

U.S. Department of Defense (DoD)

U.S. Veterans Administration (VA)

Veterans Education Adjustment Program (VEAP)

World War I (WW I)

World War II (WW II)

CHAPTER ONE: INTRODUCTION

The military and veteran student population grew significantly in the United States after the September 11, 2001 attack on New York City. Since then, over three million veterans of the post-9/11 conflicts returned from combat and the population of veterans has increased in some colleges 200 to 300% (McCready, 2010). Over 840,000 former military students now depend on educational assistance from veterans benefits and 25% of the active and reserve duty force, or an additional 580,000 students, gain some benefits from tuition assistance (TA) programs while on duty (Picker, 2011; U.S. Department of Veterans Affairs, 2011b). An estimated $63 billion is expected to be spent on returning veterans' GI Bill benefits alone before 2016 (United States. Congress. Senate, 2008). This educational support is crucial for the advancement of veterans in college, in citizen leadership, and for building a legacy for following generations (Mettler, 2005c).

Since the passing of the National Defense Act of 1916, educational needs of the military have been supported by higher education institutions (Rumann & Hamrick, 2009). The creation of the Reserve Officers Training Corps (ROTC) and the wedding of military training to the universities provided professional training to military officers after World War I (WW I). At the end of World War II (WW II), the creation of the Educational Benefits of the Servicemen's Readjustment Act (GI Bill) responded to a potential unemployment crisis and exploded the number of former military on campus (Olson, 1994; Ortiz, 2009).

Researchers, focused on these periods, recorded overlapping positive and negative aspects of the military students' engagement across a broad range of variables. Some research characterized these students as gifted due to their leadership, critical thinking skills, and life skills (Ackerman, DiRamio, & Mitchell, 2009). Other researchers noted that military students

needed more attention to remain engaged in education (Artino, 2009; Rumann & Hamrick, 2010; Van Asselt, Banks-Johnson, Duchac, & Coker, 2009).

Higher education institutions assist the military member, veteran, or family members persist in their education is the goal of this research study. For the purposes of this study, military students include active duty, veterans, and family members who are attending university or college. This grouping may be rather unique for research purposes, but reflects the current support culture and benefits provided to the military for their education (Obama, 2012; Sander, 2013a).

This paper seeks to determine the weight and relationships of various support systems that contribute to military students persistence in college. Tinto (Tinto, 1975, 1987; Tinto & Pusser, 2006) describes five basic qualities that help students persist: commitment, expectations, support, feedback, and involvement. His research shows that financial, academic support, and social supports assist student persistence. Bean (1983), and later Bean and Metzner (1985) and Metzner and Bean (1987), note the applicability of a student's intent to persist to student attrition, re-enrollment, and persistence. Structural modeling shows the integrated aspects of Tinto's attrition model with Bean's intent model (Allen & Nora, 1995; Cabrera, Nora, & Castaneda, 1993).

More specifically, this study focuses on the correlation of military students intent to persist to social, financial, and academic support. Often researchers fix on veterans due to the impact of the post WW II GI Bill legacy. Current educational benefits (e.g., the P9/11 GI Bill or university scholarships) and the military culture support a wider population sampling. This study seeks to expand the population to the larger military related student population instead of the narrower groups of disabled veterans, combat veterans, or returning veterans. This study

includes the family members and veterans who are supported by military educational benefits as well as the active duty and reservists who commonly receive tuition and scholarships that may greatly impact their intent to persist.

Background

Historically, post-war communities face challenges as they support returning war veterans and their families (Hoge, 2010). Prolonged and intensive stress levels, differences in military v. civilian culture, and lack of civilian jobs burden veterans as they returned from combat to become positive, contributing community members (Church, 2009; Seal, Bertenthal, Miner, Sen, & Marmar, 2007). For those who rotate from combat to remain in the military, the transition from combat to professional military or academic training poses difficulties as the combat veteran reengages in a less intense environment (Institute of Medicine, 2010).

In the United States, war veterans often target a college education as they make the transition home. Since WW II, education benefits helped reinforce this transition making veterans healthy contributors in both their colleges and the workforce (Jacobs, et al., 2004; Mettler, 2005b). The military itself advertised these benefits as one of the major reasons for joining the fighting force and studies showed that most join to obtain these education benefits (L. A. Harris, 2000; Teachman, 2007).

Factors that contributed to this successful transition from military service to civilian contributor have astounded and confounded researchers. Mettler (2002, 2005b) found that veterans from WW II returned, used their GI Bill, and became model citizens. She found that they participated in civic institutions, became deeply involved in politics, and became democratic leaders. Beneficiaries of the GI Bill "belonged to 50% more civic organizations and participated in 30% more political activities and organizations than the non-recipient" (Mettler, 2005b, p.

10). Her linkage of the military educational benefits to civic leadership is a common theme in surveying the lives of WW II veterans (Ortiz, 2009; U.S. Department of Veterans Affairs, 2009b).

When studying recent veterans, Smith-Osborne (2009a) found that educational and social support systems were significant to veterans with mental health issues. She noted that veterans who received treatment from the VA for Post Traumatic Stress Disorder (PTSD) were more than twice as likely to use their GI Bill benefits and thus attend college. Smith-Osborne concluded that colleges should provide a more formal support system for veterans to work with both their mental health difficulties and navigate their main support systems, the college and the VA.

This study seeks to identify the importance of the financial, social, and academic supports to military, veteran, and family members' persistence in education. Contributions of educational benefits and education support systems in both the sociological and mental health research have described the need for positive systems surrounding veterans returning for treatment and education. Identifying the overall and individual contributions of the academic, financial, and social support mechanisms may provide a helpful window into how these support processes contribute to general persistence and degree completion. In addition, it is hoped some insight may come from studying these support mechanisms which will further the success of this important student population.

Problem Statement

The problem this research study addresses centers on identification of the relationships of social, financial, and academic support to the intent of the military, veteran, or military family student to persist. Some military members may be attending a university during their military combat service. They may come directly from a combat patrol and "log-in" to an online college

classroom or walk across the forward operating base into a civilian-like educational setting. Others may remain focused on their duties, finish multiple combat tours with the intense experience of the battlefield or security challenges, and then, after returning from the combat zone, enter the college setting.

In recent times, the military student may be a member of the family receiving the benefits of the veteran. Regardless of the relationship of the student to the military or the timing of the educational experience in the military student's career, identifying and honing the quality of the educational support for this population requires basic identification, measurement, and careful analysis before we propose programs that will increase the potential of this population. In almost every case, military members and family members receive social and financial assistance from government agencies and the community at large. Recognizing the basic and essential ingredients that provide for healthy support services in the higher educational environment will highlight not only these benefits and support, but also the role of academic support from the educational institution itself in their transition to civilian life.

Veterans that received treatment at the VA for psychological or physical disabilities usually received educational counseling and were more than twice as likely to go to colleges than those who do not (Smith-Osborne, 2009b). After admission to college, the veteran may come to the school's military affairs program, which might offer extensive support to them as they prepared for their studies. However, less than a fourth of U.S. colleges provide counseling support for those with mental health issues (Asch & Loughran, 2005). Thus, the veteran might enter this unique educational experience with social, financial, military, and family supports and yet struggle during their educational experience as they may suffer from mental health difficulties or become confused because they lack clear educational advice and focus.

Aside from the community support systems, the value of the military students' educational experience may occur in conjunction with, or because of economic support systems. Conversely, military students may see a need to obtain their college degrees in order to take on positions of leadership in their families or larger communities. Schools may have a sense of their support roles and even understand the achievement a degree can bring to the culture of military students. Careful research is needed to clarify these powerful relationships, tasks, support elements, and connections that can potentially bring success to military students.

Purpose Statement

The purpose of this study is to identify the relationships of social, financial, and academic support to the intent of the military, veteran, or family member student to persist in their education. Though the higher educational process is extremely complex and filled with multiple overlapping systems, finding areas where university programs powerfully contribute to the commitment of this populations' engagement in civilian life and possibly in leadership positions within the community would provide a much needed guide for higher education, government programs, and the group itself. This study proposes to capture the relationships of these support mechanisms as they affect their intent to persist.

Significance of the Study

The educational benefits offered to the military personnel and their families affect this group, the educational system, and the taxpayers. Identifying areas to emphasize or streamline support systems may allow the military and VA to focus on areas that magnify their return for this social benefit program (Riegel, 2013). Estimated costs of the current GI Bill program are placed at over $64 billion between 2008 and 2018 or, on average, over $6 billion to as high as $10 billion a year (Office of the Press Secretary, 2013; United States. Congress. Senate, 2008).

TA for military members yet on duty was about $600 million in 2010 (Picker, 2011). Thus, identifying areas of strength in educational support may highlight areas for financial efficiency. However, the greatest efficiency may not come from the implications for the government, but rather for the veteran who makes better use of their benefit that may only cover only a small part of their educational expenses (Shankar, 2009; Spaulding, 2000). Thus, the veterans, the U.S. government, and the colleges and universities may benefit from identifying the value of support relationships for these students (U.S. Department of Veterans Affairs, 2013).

Increasing the educational success of the combat veteran, family member, and service member provides a solid platform for cultural and social growth. The use of the GI Bill benefits has, in general, opened a gateway to increase economic, leadership, and citizenship achievement (Spaulding, 2000; Walck, 2008). Reinforcing the relationships between social, academic, and financial benefits achieving a successful college experience would clarify the importance of these support mechanisms as well as the opportunities they offer for lifetime growth for veterans and their families.

Research Questions

The following research questions were proposed for this study:

Is social support provided to military students significantly correlated to the intent of these students to persist in their higher educational goals? According to Tinto and Pusser (2006), research on persistence focuses on students' reasons for leaving, theoretical constructs for integrating persistence concepts, factors external to universities (e.g., family support, prior student experience, or students' private lives), or completion rates for first-year or bachelor students. This research question seeks to identify the correlation of social support to the intent of the military student to persist in their education thus identifying the impact of the community

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support on persistence in this population. Smith-Osborne (2009b) noted that when education was offered with a nuclear family support mechanism and higher incomes due to increased financial support, military students attained a higher level of education. Her study also noted that veterans who sought mental health treatment were also more likely to seek out higher educational resources. Thus, identifying the relationship of social support to the military students' persistence may help universities properly resource and reinforce military support departments and community groups.

What correlation exists between financial support provided to military students and a students' intent to persist in their degree program? This research question is built around the need to measure an area that allows universities to make programmatic or policy differences that affect a student's intent to persist. This question seeks to clarify the impact that the financial benefits have on the students' educational goals at the university. In spite of extensive support systems, veterans usually achieve less status economically and in job status when compared with their peers who did not enter service (Maclean, 2005, 2008). They are already behind their peers financially due to entering the military. Though often reported as crucial to educational attainment (Mettler, 2002), the GI Bill and other government benefits do not seem to be as important as overall income in finishing a college degree (Smith-Osborne, 2009a). Thus, this question seeks to look at the correlation between the use of financial benefits and the motivation it provides for the military student to persist in their education. Using these benefits to actually finish a degree would substantial increase the quality of the investment made by the government and nation in those who receive these benefits. If financial benefits help the student persist to their educational goals, this area of support may provide the stepping-stone to catching up to their peers' level of financial achievement.

Does academic support provided to military students correlate to the intent of these students to persist in their higher educational goals? According to Tinto and Pusser (2006),

> students are more likely to succeed when they find themselves in settings that are committed to their success, hold high expectations for their success, provide needed academic and social support, provide frequent feedback, and actively involve them, especially with other students and faculty, in learning. The key concept is that of educational community and the capacity of institutions to establish educational communities that involve all students as equal members (p. 8).

This question seeks to capture the academic support provided by a major university department and the student's intent to persist in their education.

What combined elements of social, academic, and financial support accounted for the strength of the military students' intent to persist in their education? Weighing the social, academic, and financial support provided to students will provide focused areas for improvement in programs and policies. Providing support for the large amount of financial aid may have an impact on the military student and have a large affect a university's financial picture. However, we may find that providing programs that fill the need for a cohesive academic program may pay off more for the military student. In contrast, social support and community strength may affect a students' clear commitment to their educational goals and degree completion.

Lastly, what relationships exist between the support systems of the military students' intent to persist in their education, the strength of these covariables, and those who are not with the military? Contrasting these populations may highlight areas where support elements reinforce or diverge with their intent to persist to degree completion. Researchers often note the need for a unique approach to military students over and against the non-military culture (Fawley &

Krysak, 2013; McBain, 2013; Rumann & Hamrick, 2009; Sander, 2013b). Quantifying these possibilities and noting areas of similarity may as well guide institutional and community support elements.

Research Hypotheses

The following hypotheses guide this study:

- A statistically significant correlation exists between social support systems and the military students' intent to persist in education.

- A statistically significant correlation exists between academic support systems and the military students' intent to persist in education.

- A statistically significant correlation exists between combination of the support systems (social, academic and financial systems) and the military students' intent to persist in education.

- A statistically significant correlation exists between the interaction of social, academic, and financial support and the students' intent to persist in their education.

- A statistically significant correlation exists between the support systems and the intent to persist for the military students and those not with the military.

Expressed as null hypotheses:

- No correlation exists between social support systems and the military students' intent to persist in education.

- No correlation exists between academic support systems and the military students' intent to persist in education.

- No correlation exists between combination of the support systems (social, academic and financial systems) and the military students' intent to persist in education.

- No correlation exists between the interaction of social, academic, and financial support and the students' intent to persist in their education.

- No correlation exists between the support systems and the intent to persist for the military students and those not with the military.

Identification of Variables

The study variables are social, financial, and educational support data as well as items that measure the students' intent to persist. Descriptive data representing financial aid offered to both military and nonmilitary students will be gathered and the data compared for the overall population of students.

The social variables were measured by using social integration, collegiate stress, and advising factors in the College Persistence Questionnaire (CPQ v2) prepared by Davidson, Beck, and Milligan (2009). The financial variables were measured by financial strain on the CPQ v2 and included descriptive data on loans, grants, and scholarships. Academic variables included measuring academic integration, motivation, efficacy, and conscientiousness. Covariables concerning the students' intent to persist included degree commitment and institutional commitment will be gathered along with demographic data including household size, yearly income, race, sex, age, and time served in the military.

Assumptions and Limitations

This study used a stratified sample of military and nonmilitary students measuring students coming from a department within a major U.S. non-profit private university. This sample from one department and in one location may limit the generalizability of these conclusions. Secondly, the study assumed that students would accurately report their benefits. Lastly, variables such as combat-exposure and mental health issues such as PTSD, that may

greatly affect educational success, are not identified in this study though they are often more common among veterans (Hulsey, 2010).

Research Plan

This quantitative study compiled data from a face-to-face survey. Correlational analyses provided supporting perspectives on the relationships of social, academic, and financial support mechanisms to the students' intent to persist in the higher education environment. Descriptive statistics tabulated from demographic data gathered in the survey gave context for the study. This demographic data reflected current definitions, categories, and data ranges used by the Common Education Data Standards of the National Center for Educational Statistics (National Center for Educational Statistics, 2014).

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

U.S. military students possess over a century long legacy of professional service enhanced by their educational opportunities. Benefits, both during and after their active service, were offered as a recruiting incentive for service and as an opportunity to prepare them for the civilian workforce (Frydl, 2009; Mettler, 2005b; Olson, 1994). In addition, Congressional legislation and the DoD created a TA program for active and some reserve duty personnel in 2001 investing from $4000 to $4500 per year in their education ("Payment of tuition for off-duty training or education," 2008; Picker, 2011). Since the introduction of the newest version of the GI Bill—the Post 9/11 GI Bill, education and housing benefits were now transferrable to family members of veterans (Dortch, 2011; Sander, 2013a).

Other educational benefits overseen by the DoD, VA, or negotiated with the universities further supplemented family member education. Some of these family support grants focused on veterans with disabilities or families whose military member was killed in action (Department of Defense, 2011a; U.S. Department of Veterans Affairs, 2009a, 2011a). Spouses of active duty members obtained limited benefits through a direct grant from the DoD that was eventually confined to the lower enlisted and officer ranks due to funding limitations (Department of Defense, 2011a).

Conceptual Framework

Research on persistence in college students has an almost 40 year legacy in U.S. universities (Tinto, 1975). The focus in recent persistence research shifted from documenting student behaviors for dropout and success to describing institutional changes in behavior, policy, and programs that can reinforce student persistence (Tinto & Pusser, 2006). Previous research

was constrained to behaviors often external to the institution such as income, college entrance scores (e.g., ACT or SAT), parents' level of education, and student academic success in high school.

This study is designed to apply this newer, more institutional perspective in persistence research to the military student sub-set of the university population. With the breadth of military related benefits, this study seeks to document the efficacy of the current focus on supporting military students. In addition, this study will document and contrast elements of social, financial, and instructional support. Teacher organization and clarity of teacher communication are important aspects of academic support that, when contrasted with the divergent variables of financial and social support, should highlight important relationships that could imply organizational change.

The narrowing of persistence literature to social, financial, and academic elements is necessary to provide both a manageable research base and population response. Military members and their dependents are closely acquainted with surveys and formal research studies as the DoD and VA conduct continuous institutional assessment and research for process and policy improvement. This population completes multiple surveys to gauge interest, achievement, and future plans on a yearly basis. Thus, confining this study to a compact, focused questionnaire is a necessity.

This study has chosen to sample the financial benefits due to their perceived impact on military related members' persistence in education and accomplished citizenship (DiRamio, 2011; DiRamio & Jarvis, 2011; Gururaj, Heilig, & Somers, 2010; Hossler, Ziskin, Gross, Kim, & Cekic, 2009; Mettler, 2005a, 2005b, 2005c). Academic factors in persistence literature receive a robust institutional and student response among researchers (DiRamio, 2011; Elliott, Gonzalez,

& Larsen, 2011). Social factors are also thought to have an important relationship to student persistence across the undergraduate and graduate experience (Barnett, 2011; Burnett & Segoria, 2009; DiRamio & Jarvis, 2011; Livingston, 2009; Mannan, 2007; Pascarella, 1980; Smith-Osborne, 2009a; Terenzini & Pascarella, 1980; Tinto, 1999; Vance & Miller, 2009). With the influx of military students, it is assumed that solid academic programs designed to increase student academic success and interaction and provided with adequate financial support will provide an increased possibility for student persistence reflected in higher graduation rates (Cragg, 2009; Van Asselt, et al., 2009).

Positive expectations and institutional support are thought to encourage educational engagement. They may be especially important if they help the military member achieve lifelong goals that would not have been possible without them. Many join the military with higher education as their chief goal (Asch & Loughran, 2005; Teachman, 2007) and the perception that achieving a professional degree or a technical license is necessary to affect their family economically and socially for generations (Teachman & Tedrow, 2007). Though these motivations and perceptions exist, use of the financial benefits available to veterans does not necessarily exhibit gains over the veterans' peers who did not serve in the military—economically, educationally, or in social standing (MacLean, 2008; Smith-Osborne, 2009a; Teachman, 2007). Thus, the perception might motivate them to both join the service and finish college, but may not show financial or vocational growth greater than their peers who did not join the military.

The community generally recognizes the personal and professional sacrifices made by service-members and attempts to supplement the military students benefits are a direct result. In this study, it is important to note that colleges and veterans groups provide direct social,

education, and financial support to the returning veteran providing a safety net for their studies which may mitigate their societal, personal, and professional sacrifice (Vance & Miller, 2009). Measuring the social and financial contribution of the larger community to military members may surface a key contributor to their growth vocationally or as citizens and leaders in the community.

Self-report from veterans highlight these social and educational benefit programs with being crucial to their progress, and ongoing research continues to chart its efficacy. Smith-Osborne (2009a) studied returning college student-veterans based on resiliency theories and found that veteran college students living with a small nuclear family, having higher family incomes, and having higher levels of health and educational benefits were associated with higher academic achievement. She predicted that further social support from the educational offices at universities and the VA would boost the academic success of the veteran students—especially those with mental difficulties related to war or return from conflict (i.e., PTSD, stress reactions, or relationship difficulties).

Since the institution of education benefits for veterans at the end of WW II (the GI Bill), veterans often expect to go directly to a college or the vocational classroom to improve job prospects and professional skills (Asch, Du, & Schonlau, 2004). College admissions departments and professors are eager to support these students and often offer special tutoring, materials, and staffing offices to enable them to succeed (Crisp, 2010; Ford, Northrup, & Wiley, 2009; Hulsey, 2010). In addition, some schools sponsor special events and staffing to support not only the financial benefits, but to build social and academic networks for military members. The VA and military departments (Army, Navy, Marine Corps, and etc.) continue to support student veterans who are usually seen as well-disciplined, solid academic performers who will

later in life achieve great good for their communities (Mettler, 2002; Smith-Osborne, 2009b). Large segments of the educational and veterans communities have traditionally gathered around the returning military members to support their educational and social success and encourage greater vocational achievement.

Review of the Literature

Veterans in the Classroom

Concern for veterans returning from combat has a long legacy stretching into ancient history (Ross, 1969). The U.S. Department of Defense (DoD) and the VA sponsor a number of programs helping the veteran reintegrate into civilian life (Department of Defense, 2011a, 2011b; U.S. Department of Veterans Affairs, 2011a, 2011b). Retelling their experiences and identifying with previous veterans is an important part of this process. The DoD has even sponsored groups who retell the ancient war stories of the Greeks as a way of understanding the modern veterans' struggle to reintegrate with society while experiencing intrusive, even suicidal thoughts (Healy, 2009; Theater of War Productions, 2010). Thus, a common breadth of experience that provides a tie for the veteran in the present to warriors of the past who struggled with reintegration and reconnection to a society once peace is established.

The GI Bill

The modern story of educational support for veterans began with the U.S. Servicemen's Readjustment Act originally signed into law in 1944. Use of the educational benefits of this legislation, the GI Bill, was connected to the economic recovery of the post-WW II United States (O'Donnell, 2002), and was seen as a way to delay the entry of the servicemen into an already full workforce (Frydl, 2009). The lessons of the Hoover era Bonus March where WW I veterans marched on Washington were still in politicians' memories (Dickson & Allen, 2004). And even

though President Roosevelt had opposed the idea of a social benefit for returning veterans, the lessons of the Hoover-era riots were not forgotten. Thus, delaying the veterans reentry into civilian life by offering them a full year of unemployment or educational benefits cushioned the return of veterans from war both for the service member, the American economy, and the political climate of the nation (Johnson, 2009).

WW II Veterans

The GI Bill was commonly seen as the open door to higher education and economic success among WW II veterans (Loss, 2005). Though originally opposed by President Roosevelt at the American Legion's Chicago convention in 1934, the Commander in Chief later supported and spearheaded the legislation to retool veterans for better jobs and housing (Ortiz, 2006; Wall, 1998). Ironically, the later head of the American Legion helped write and support the final legislation that laid the foundation for the GI Bill through its inception and seeing it placed under the Department of Veterans Affairs rather than the Department of Defense (U.S. Department of Veterans Affairs, 2002).

By 1947, the number of veterans exploded to almost 50% of the student body on college campuses. Before the bill was discontinued in 1956, nearly 50% of the WW II veterans participated in a training or education program with their GI Bill education benefits (U.S. Department of Veterans Affairs, 2009b).

Since 1944, research into the four of the five revisions or cancelations of the GI Bill showed each to be crucial to both economic development and continued participation in the military (Colson, 2000; Dale & Gilroy, 1983; Fisher, 1975). WW II veterans set the stage for attending college, obtaining careers, and returning from war to build their country.

Korean War Veterans

A small set of draftees fought the Korean War and, in contrast to WW II, this conflict did not have a definite end. Educational services for these veterans, though similar to those of the WW II veterans, changed as payments went to the servicemen instead of the educational institutions. As a consequence, these generations of veterans obtained benefits more directly and thus were able to juggle tuition, books, and other fees more effectively (Fisher, 1975). This benefit provided a 3.7% overall improvement in the education level of these veterans and a 15% improvement in the college level achievement of Black students. Like their WW II counterparts almost half of the returning veterans took advantage of the opportunity to return to the classroom (Brown, 1979).

Vietnam Veterans

Educational benefits for Vietnam veterans varied greatly from their WW II or Korean War counterparts. These benefits, known as the Veterans Education Adjustment Program (VEAP), were substantially reduced and the use of the program by veterans almost non-existent. As a consequence, Senator Montgomery sponsored what became known as the Montgomery GI Bill (the MGIB passed in 1984) that for the first time required the veteran to make a payment into the program and obtain their benefits after successful service (Spaulding, 2000). Consequently, these benefits required a $1,200 payment deducted from the serviceman's pay (continued to this day) and the benefit would be paid out over the course of their college attendance. Over a decade separated this legislation from the Vietnam conflict, so few Vietnam veterans used their educational benefits. The influx of veterans did not reflect the anticipated participation set by WW II and Korean War veterans. In 1947, 59% of the student body at

Harvard University was veterans while only 1.5% of the student body at Harvard was veterans in 1972 (Spaulding, 2000).

Desert Storm

Educational benefits under the 1984 Montgomery GI Bill covered only 40% of the college expenses. This contrasted greatly with the WW II veterans who had 100% of their expenses covered and the Korean War veterans whose benefit was about 51% of their expenses (Spaulding, 2000). Department of Defense and political leaders pointed out that increasing the educational benefits to veterans would cause an exodus of badly needed military personnel (Thomason, 1987). Thus, attempts to increase this benefit were not forthcoming, as the military branches balanced these benefits against retaining an all-volunteer force (Chisholm, Gauntner, & Munzenrider, 1980; Negrusa, 2007).

OEF/OIF and Operation New Dawn

Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) transitioned to Operation New Dawn in September of 2010. Veterans that were a part of these wars in Iraq and Afghanistan numbered about 1.6 million (Tanielian & Jaycox, 2008). Educational benefits changed drastically for this group of veterans with the most recent revision labeled the Post-9/11 GI Bill. A number of benefits shifted more directly to educational funding (i.e., the educational institutions) rather than to providing blanket benefits to the individual veteran as in previous legislation. Among the new provisions were basic housing allowances, reimbursement for books, sliding tuition reimbursement, and the ability to transfer benefits to family members (U.S. Department of Veterans Affairs, 2009a). Much of these benefits are re-enlistment and retention tools as the veteran must complete a number of years of service, usually four years, in order to

receive the full range of benefits from the Post-9/11 GI Bill (Dortch, 2011; Picker, 2011, U.S. Department of Veterans Affairs, 2011c).

Research into the impact of the Post-9/11 GI Bill awaits the future as two major revisions have only recently went into effect on August 1, 2010 and on August 3, 2011 (Dortch, 2011; U.S. Department of Veterans Affairs, 2011c). In general, the Post-9/11 GI Bill covers 36 months of education for a maximum of $17,500/year in tuition and fees. This varies with the type of instruction (e.g., less for online education than for face-to-face) and the living circumstances of the recipient (if still on active duty, no payment for housing allowance is issued as a housing allowance is already being paid). In some circumstances, military members use their Post-9/11 GI Bill benefits (as they could with the Montgomery GI Bill) while on active duty for classes after their first term of service.

In 2010, about 840,000 military students depended on educational assistance from veterans' benefits (U.S. Department of Veterans Affairs, 2010). The U.S. Treasury projected $63 billion dollars in expenditures for returning veterans' GI Bill benefits through 2016 (United States. Congress. Senate, 2008). In fiscal year 2012, about 54,400 spouses and some 93,500 children drew Post 9/11 GI Bill benefits from family veterans (Student Veterans of America, 2013). The Post 9/11 GI Bill increased enrollment for males between 15 and 20% and even more in states who supplemented these benefits (Barr, 2013). Research into the Post 9/11 GI Bill linked this benefit to psychological, political, and social enhancement for veterans (Loss, 2005; Ross, 1969; Sander, 2013b; Walck, 2008).

GI Bill benefits benefit the U.S. military so much so that other countries copied and sought to replicate the U.S. experience and it became a mainstay of positive political rhetoric (Boozman, 2009; Bréadün, 2009; Brown, 1979; Reed, 2001). Statistics from the NCES in their

2007-2008 National Postsecondary Student Aid Study (Radford, 2009; Radford & Weko, 2011; Radford & Wun, 2009) summarized the initial impact of the Post-9/11 GI Bill. Preliminary data noted the linkages of employment and education on the Iraq/Afghanistan war veterans (Humensky, Jordan, Stroupe, & Hynes, 2013).

In early 2013, Veterans Affair's Secretary Eric Shinseki announced that a partnership be formed between the VA and the Student Veterans of American to capture graduation rates on one million veterans and family members currently using their GI Bill benefits. The preliminary results of this analysis, published in early 2014, were not encouraging (Cate, 2014). According to this study, the degree completion rate for veterans from WW II veterans was about 80%, Korean War 73%, Vietnam Era 68%, and, since 2001, the average veterans' completion rate was about 51%. However, Cate (2014) warns that most students in this era were yet in process with their degrees and this 2010 data may change.

Other Financial Support

The U.S. military first provided Tuition Assistance (TA) in 1916 in the form of base libraries and YMCA-led English classes (Dickinson, 1922). This inherent need to communicate in English became in present time a means for 25% of the military to enroll in higher education courses, use their TA benefit, and complete multiple degrees in off-duty time over the course of a career. One service alone, the U.S. Air Force, granted over 336,000 Associates Degrees over the last 40 years from TA (Picker, 2011). In FY10 alone, the DoD voluntary education program expended over $542 million in TA alone completing 45,366 degree programs including 43,510 higher education degrees with almost 858,000 students enrolled (Defense Activity for Non-Traditional Educational Support, 2011). Thus, TA provided a support system for degree

completion and, along with the GI Bill, provided numerous military students with the opportunity to earn a college degree.

Other Types of Support

University Military Affairs Programs (MAP) can be crucial to the military student (McCready, 2010). A recent survey of four-year universities showed that 74% of the public institutions had a MAP dedicated to military students (Cook & Kim, 2009). Over 60% of all colleges surveyed included a MAP in their long-term plans. Services offered by MAPs differ in scope and purpose. The only two agreed upon goals of current MAPs in a survey of military student offices were establishing new services and marketing or outreach (Cook & Kim, 2009). Recommendations for these programs included providing community connections for the students, encouraging internal study groups, providing help with disabilities, and implementing a basic orientation program (O'Herrin, 2011). Institutional support encourages educational engagement and is important as it helps the military student achieve lifelong goals that would not have been possible without them (Cook & Kim, 2009).

Not all assessments are positive about support offered to military members. The National Survey of Student Engagement (NSSE) (2010) found that though veteran students were academically very much like their nonmilitary counterparts in the time they spent in study, military students were less engaged in integrative and reflective learning. The veterans they surveyed were less involved with school affairs, more likely to have a job, and spent six times as many hours taking care of dependents. In addition, the veterans felt less support from their teachers and school than the nonveteran survey participants (NSSE, 2010). As a result the NSSE concluded "institutions should seek ways to more effectively engage student veterans in effective

educational practices and provide them with the supportive environments that promote success"

(p. 16).

Other researchers noted the challenge that military students, especially those involved in

intense combat or with PTSD, may present to the university system. Elliot, Gonzalez, and

Larsen (2011) summarized their research on veteran alienation at college, "given that over half

of student veterans state that they do not fit in on campus, and almost one-third feel unfairly

judged, interventions are needed to increase social integration" (pp. 289-290). Other researchers

noted the need for special financial programs, educational groups, support groups, disability

support, library programs, and individual counseling support (Ackerman, et al., 2009; DiRamio

& Jarvis, 2011; DiRamio & Spires, 2009; Fawley & Krysak, 2013; Wurster, Rinaldi, Woods, &

Liu, 2013). Providing support to academic, social, and financial issues may mitigate the

isolation and mental health challenges military students bring to the college setting. Penk and

Little (2013) note in the *Military Psychologists' Desk Reference,* "Regaining mastery of skills in

careers is essential for recovery and resiliency. Returning to education is a time-honored form of

rehabilitation (p. 276)."

Persistence in Educational Research

Graduation rates across four-year universities increased from 55% in 2002 to 57% in

2008 (NCES, 2011). Rates have varied greatly by type of institution: non-profit private

universities graduated 65%, public universities 55%, and for-profit private colleges only 22%.

According to the NCES (2011), graduation rates vary by race and sex, and are greatly affected by

academic preparation and socioeconomic levels with the poorer students (in the lowest quartile)

graduating at 76%, those in the highest at 90%, and the greatest number of drop-outs from the

middle groups.

Research on persistence at four-year colleges showed five facets as important to the college students' success: commitment, expectations, academic support, feedback, and involvement (Tinto & Pusser, 2006). Tinto's theory (1975, 1987; Tinto & Pusser, 2006) served as the primary reference for this study though two other theories have shaped persistence research and thus, this study as well. The addition of intervening variables such as student satisfaction and linking graduation or completion with the intent of the student to persist are important shifts in persistence research (Allen & Nora, 1995; Bean, 1983; Bean & Metzner, 1985; Cabrera, Nora, & Castaneda, 1993; Metzner & Bean, 1987; Pascarella, Salisbury, & Blaich, 2011). In spite of this additional material, this study sought to narrow its focus to the three subsets of the support element in Tinto's persistence theory: social, financial, and academic support.

The Contribution of Academic Support to Persistence

Over eight decades of research underlays any study on the affect of universities on students. Feldman and Newcomb (1969) reviewed 1,500 studies covering four decades of research in higher education. Their foundational summary on persistence research (to that point) noted that researchers had no coherent or comparable theory to help in generalizing results. Thus, they concluded "that completely psychological or attitudinal explanations that ignore the institutional context will rarely be generalizable across student populations, since psychological or attitudinal factors have differential relevance for attrition in different types of campus setting" (Feldman & Newcomb, 1969, p. 291).

This extensive research summary was followed by Pascarella and Terenzini's (1991) two-decade survey of over 2,600 studies and their subsequent follow-up volume (2005) covering over 2,500 studies. In 1991, they summarized persistence research by focusing on degree

completion and dropout rates in the context of overall educational attainment. In 2005, they

defined persistence research as "the progressive reenrollment in college, whether continuous

from one term to the next or temporarily interrupted and then resumed" (2005, p. 374). They

excluded research on degree completion, yet they held to the conclusion that persistence needed

to remain within the overall goal of educational attainment. From their survey of the literature,

they noted that grade performance, supplemental instruction, academic support services, some

forms of financial aid, degree selection, and athletics contribute in varying amounts to

persistence. They concluded that "despite a large number of studies designed to test one

persistence model or another, the findings are inconsistent, and the causal linkages remain

obscure" (Pascarella & Terenzini, 2005, p. 440).

In the next year, Pascarella (2006) predicted that research surveying the affect of college

on students would double or triple in the coming decade to between 5,000 or even 10,000

articles, creating an inherent need for quality research findings. He argued that replication

studies, longitudinal designs, diverse population studies, and studies that focused on previously

ignored students would enrich the substantive directions for research.

Pascarella, along with other researchers, followed these observations with two further

studies, one documenting the impact of quality teaching on student persistence (Pascarella,

Seifert, & Whitt, 2008) and the second replicating these findings with a broader sample

(Pascarella, Salisbury, & Blaich, 2011). The first study (Pascarella et al., 2008) concluded that

organized and clear instruction has a significant impact on student persistence (n=1,353). This

relationship was not seen as a causal element in persistence, but rather a mediator that increased

the causal variable—student satisfaction. The study showed that an increase in clear and

organized instruction (equal to 1 σ) had a net increase of 1.41 σ in persistence.

Pascarella et al. (2011) replicated this study longitudinally. They broadened their population across the U.S. in 19 two-year and four-year institutions with a cross-section of Carnegie Classifications (n=2,934). In this study, an increase in clear and organized instruction (equated to 1 σ) had a net increase of 1.40 σ in persistence or a possible 40% enrollment increase related to improvement in clear and organized instruction (Pascarella, et al., 2011). These studies (Pascarella, et al., 2011; Pascarella, et al., 2008) defined persistence as actual enrollment in the second year of college instead of degree completion or the intent to persist. Thus the design of these studies was based on logical regression analysis (covariable was enroll=1 or not enroll=0) instead of linear regression (a covariable that was continuous).

As research in persistence stretched over three decades, standardized instruments to measure persistence have received some attention (R. Chen, 2008; Pascarella, et al., 2011; Pascarella, et al., 2008; Rivas, Sauer, Glynn, & Miller, 2008). Pascarella et al. (2008) produced the Instructional Organization and Clarity Scale to capture and clarify only the educational support variable in persistence.

The Contribution of Social Support to Persistence

Over three decades ago, Pascarella and Terenzini (1980) developed an instrument that focused on both academic and social support variables. They concluded that these two factors could predict persistence and retention factors in over 75% of students. These findings set the stage for social support in persistence research, pairing and contrasting social and academic support variables, for the next 20 years (Hossler, Ziskin, Moore, & Wakhungu, 2008; Mannan, 2007; Pascarella, 1980; Pascarella & Terenzini, 1980, 1991; Pascarella & Terenzini, 1997; Terenzini & Pascarella, 1980; Tinto, 1999).

Research in the last 10 years has included studies focused on various areas. Mentoring programs are shown to have significantly contributed to the community college persistence paradigm (Crisp, 2010); social encouragement affected community college persistence rates (Barnett, 2011); and family encouragement was important in three contrasting university contexts (Hossler, et al., 2008). In a decade-long survey of research on programs, Karp (2011) noted four areas of support that increased persistence: creating relationships; clarifying aspirations/increasing commitment; developing know-how about the college; and providing a community safety net. She noted that making new relationships, the most social of these four areas, was most important to persistence, yet not significantly related to academic achievement.

Numerous authors have argued over the last few years from a persistence perspective that social support was crucial to veterans facing cultural change, mental health issues (e.g., PTSD), and other transitional issues. Most have recommended increased college counseling support, veterans leadership groups, and special recognition for veterans (Burnett & Segoria, 2009; DiRamio, 2011; DiRamio & Jarvis, 2011; Elliott, et al., 2011; Ellison, et al., 2012; Hulsey, 2010; Rumann & Hamrick, 2009; Van Asselt, et al., 2009; Vance & Miller, 2009; Whiteman, Barry, Mroczek, & MacDermid Wadsworth, 2013).

Smith-Osborne (2009b) reviewed data on veterans of the first Gulf War using social ecology theory (in social work). She noted that veterans with a small nuclear family, better health assistance, higher income, and increased educational benefits achieved higher educational attainment. In addition, Smith-Osborne's research discovered that if a veteran had used VA mental health services, then their educational attainment was diminished compared to their peers. Smith-Osborne concluded, "more effort to foster informational social networks is needed, and

could include help designing and applying individualized packages of combined financial aid for veterans" (2009b, p. 334).

The Contribution of Financial Aid to Persistence

While research on financial aid in making decisions to attend college is fairly robust, measuring financial aid as a part of the persistence process is much less studied (Pascarella & Terenzini, 2005). This is especially noted for the period between 1990 and 2005 (Murdock, 1990; Pascarella & Terenzini, 2005; St. John, Kirshstein, & Noell, 1991). Tinto (2012) revised his earlier book, *Leaving college: Rethinking the causes and cures of student attrition* (1987)*,* which tied finances to commitment to a new point of view, linking finances to adjustment at college. Though included in his earliest persistence model (Tinto, 1975, 1987), Tinto, possibly due to the economic climate of higher education between 1970 and 1980, did not highlight the influence of finances and financial aid in persistence (St. John, Cabrera, Nora, & Asker, 2000). Critiques of Tinto's work also overlooked financial factors in persistence (Braxton, Sullivan, & Johnson, 1997). As a result, other researchers proposed additions to Tinto's model that included financial support, intent to persist, and overall finances that affect year-to-year decisions on persistence (Cabrera, Burkum, & La Nasa, 2005; St. John, et al., 2000).

Chen (2008) noted that researchers have two main points of focus for financial aid: college choice (i.e., lower tuition and higher financial aid was negatively correlated with college choices) and departure from college. He noted that researchers over the last fifty hears have described five separate points of focus for financial aid's contribution to persistence. First, researchers noted the students' perceptions towards the subjective value of financial aid. Secondly, the type of aid became the focus of this research. Thirdly, behavioral differences of those with or without certain types of financial aid became important to researchers. Fourthly,

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financial aid researchers looked at the relationship of student departure to the amount of different types of aid. Lastly, researchers noted, with a more longitudinal perspective, the amount of aid and when it was introduced into the departing student's college experience in order to discover the affect it may have had on persistence.

More recently, research has outlined the need for institutional (federal, state, and university) oversight when dealing with financial support in the persistence process (Hossler, Ziskin, Gross, et al., 2009). Four recent persistence studies focused on the need to both supplement financial aid for both ethnic groups and poorer students, and to continue financial aid through degree completion (R. Chen, 2008; Kim, 2007; La Nasa & Rogers, 2009; Nora, Barlow, & Crisp, 2006). Two studies noted the negative affect of student loans on degree completion— especially the negative impact between loans and persistence on low-income, Black, and Hispanic students (Kim, 2007; Nora, et al., 2006). Most researchers on the connection of financial support, student loans, and persistence have agreed that further study is needed to establish theoretical clarity and the impact of finances on persistence (La Nasa & Rogers, 2009; Pascarella, 2006). Some researchers have argued that a required longitudinal approach for this research becomes a necessity before any relationships will emerge (R. Chen, 2008; Pascarella, 2006).

After analyzing the financial aid and persistence literature for the last 15 years, Hossler et al (2009) made the following observations and policy recommendations:

- However large or small the effects of financial aid on persistence, grants have a more positive impact than loans.

- Although more research should be done on college work-study, there is sufficient evidence to indicate that it may be a promising tool for enhancing persistence and that it deserves more institutional and public policy attention.

- Although we have few studies in this area, there is an intriguing pattern of findings suggesting that large single-aid-source programs may have more impact than the myriad federal programs that currently exist.

- As currently structured, loan programs have a small or negligible impact on persistence from year to year and debt has a negative effect on persistence.

- Overall, financial aid has a positive effect on persistence. However the effect sizes seem most likely to be small and indirect. . . . There is a sizable number of students who would not have enrolled in postsecondary education without assurances of financial aid and that, once enrolled, many of the students persist and graduate. (Hossler, Ziskin, Gross, et al., 2009, p. 419)

After reviewing recent research into financial aid and persistence and noting the increasing tuition and fees involved in modern education, Haynes (2008) recommended changes in both access and retention policies. He recommended mentoring programs for third and fourth-year student, which allow the student to "earn" their financial aid while reinforcing the educational goals of the institution. Haynes offered a second insight into the literature somewhat related to his first recommendation in that students should be offered aid that reinforced the academic support of the institution. Due to the powerful impact of academic support mechanisms on student persistence, Haynes recommended that "institutions should consider policies that mandate enrollment in academic support in return for institutionally funded financial aid" (2008). Haynes extended this requirement to include at-risk students who may

need help with pre-college academics, thus linking academic mentoring, financial aid, and at-risk students into a systemic response to student persistence (2008).

Financial aid processes and research present a confusing and complex picture for any researcher or theoretician (Heller, 2010). Though these recommendations and observations are recorded for the purpose of providing perspective on the field, confidence in both general and specific policy recommendations based directly on research was difficult to pinpoint.

Research noting the relationship between the intent of a student to persist in their college education and their financial benefits would be helpful for policy recommendations. Research that would focus on benefits obtained due to military service would provide a unique addition for financial aid-related persistence research. This would especially be the case during a time of financial transition, retirement, and when reengaging in civilian culture after completing military service.

Towards an Institutional Perspective on Persistence

According to Tinto and Pusser (2006), persistence research has traditionally focused on issues that were not helpful to a university response. They noted that research did not lead to a coherent model of practice for five reasons:

- Most research on persistence has focused on knowing why students leave which does not lead to the "mirror image" of why they stay or persist in their education.

- Too much of the research in persistence is focused on "theoretically appealing concepts" that do not work well in application.

- Much of the research has described events (e.g., family context or high school experiences) that are external to the educational institutions' mission, policy, and program.

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- Researchers have become confused with the definition of persistence, with some measuring degree completion rates, others class completion, and others continuous enrollment.

- Few practitioners and researchers that have worked from an institutional response perspective have taken a systemic approach to persistence seeing the pervasive nature of policies and policy changes at the statewide and university level and their affect on student persistence. (p. 4)

In this article, Tinto and Pusser (2006) restate the results of persistence research with a focus on institutional action instead of one focused on student behavior (see Figure 1, Appendix F). They concluded that commitment by the university is considered necessary for student persistence. High expectations expressed in concrete counseling that are adaptable to each student are a college-wide requirement. In addition, institutions must provide expanded support (financial, social, and academic), frequent feedback from faculty that adjusts the learning process to the students, and, finally, university involvement in providing social and academic interaction for students with other students which, in turn, grows a community of learning that fosters increased persistence (Tinto & Pusser, 2006). This return to a larger picture of institution action contrasts with the previous 25 years of persistence proposals focused on student traits and action. Though this contrast had been drawn in the literature previously.

Berger (2001) described a subset of the institution when he defined universities as organizational structures whose leaders purpose behaviors that reinforce student persistence. He surveyed over 30 years of persistence research and recommended 10 behaviors that college leaders must provide to increase persistence. Berger noted that university leaders must:

- Clearly communicate the vision, values, policies, and procedures of the institution.

- Emphasize student involvement in decisions.

- Establish fairness when implementing policies.

- Retain flexible goals and structures.

- Engage students in campus politics.

- Provide student advocates.

- Create symbols reflective of important university values.

- Establish positive connections with external professional organizations.

- Develop a clear understanding of internal organizations

- Constantly assess student perceptions. (2001, pp. 14-19)

Berger's survey did not focus on financial aid or academic support systems, but his survey and summary actions for institutions anticipate the theoretical shift that Tinto and Pusser (2006) describe.

Additional studies touched on financial support, the institutional context, and persistence rates. Titus (2004) drew data from a nationwide longitudinal database and explored the relationship of an array of institutional context variables to four-year college persistence rates. Drawing from the 1996-1998 Beginning Postsecondary Students database maintained by the U.S. Department of Education's National Center for Educational Statistics (NCES), the researcher correlated measured commitment (i.e., persistence) against other factors including institutional prestige, intellectual growth, social life, campus climate, financial need, work hours, family responsibilities, class size, teacher ability, and other variables. Using hierarchical generalized linear modeling and stepwise multivariate analysis, Titus determined that academic performance, living on campus, and commitment to a bachelor's degree all contributed significantly to student persistence. In addition, he noted that this data showed that increased

financial need and more hours working at a job also increased persistence; two areas that Titus

felt required extensive study due to their counterintuitive nature. His recommendations for

further research included the need to reassess the relationships of financial aid and work hours to

persistence and to expand contextual factors when looking at persistence from the institutional

perspective.

Two recent studies, conducted in partnership with the College Board and the Lumina

Foundation, described the relationship of financial aid and the institutional role in college

students' persistence (Hossler, Ziskin, & Gross, 2009; Hossler, Ziskin, Gross, et al., 2009;

Hossler, et al., 2008). These researchers found that:

- Larger amounts of financial aid were more positively related to persistence than smaller
  amounts.

- Work-study was likely to be positively related to persistence.

- Large single-sources of financial aid had a greater impact on persistence than smaller
  amounts from various sources.

- Loans were not as affective as grants for reinforcing persistence and loans likely worked
  against a students' persistence—especially for minorities and economically challenged
  students.

- Merit-based aid was slightly positively correlated to persistence.

- Financial aid seemed to be indirectly related to persistence and likely freed students to
  engage in academic and social support mechanisms. (Hossler, Ziskin, Gross, et al., 2009,
  p. 102)

The authors concluded that, when looking from an institutional perspective, the role of

financial aid was insignificant in reinforcing student persistence (Hossler, Ziskin, Gross, et al.,

2009). However, when they shifted their focus to the institutional role in student persistence, the researchers recommended a well-resourced leader be appointed on each campus that is tasked with setting and reporting on retention and persistence goals (Hossler, Ziskin, & Gross, 2009). They also recommended that student services and financial aid advisors be integrated within the academic advisory teams receiving input from the persistence leadership. These results show that financial aid, from the institutions' perspective, required leadership and well-trained individuals even when it served only to reinforce what they concluded were the more powerful variables, academic and social support, involved in student persistence. It should be noted that the Lumina Foundation's stated goal is to increase student persistence to 60% in the U.S. by 2025 (Lumina Foundation, 2012).

After an extensive review of the history of persistence research, Reason (2009) proposed "the goal of persistence research must be to explore students within the multiple concentric environments they inhabit, recognizing that different students engage differently within those environments" (Reason, 2009, p. 676). His proposal summarized the complexity of both the student decision and the various contexts involved in providing support for persistence and gave a context for further research that looked for more possibilities within the framework of persistence.

Tinto (2010) restated the history of persistence research and the need for transition to an institutional context for action in this research. He argued that researchers should shift from research focused on student behavior to institutional action. He noted the three types of support (financial, educational, and social) necessary to balance commitment by the student and institution. Tinto outlined the chief importance of academic support, warned of the negative relationship of lack of social support to persistence, and noted that financial aid often impacts

persistence most when a student is in need. He noted that academic and social support

mechanisms overlap greatly and that reinforcing one may promote the other especially in the

sense of belonging that a student experiences. He concluded in this summary article, "there is

still much to learn about how institutional actions can more effectively promote student retention

generally and for particular groups of students" (2010, p. 77).

Tinto (2012) summarized 36 years of research in a recent publication, *Completing

College: Rethinking Institutional Action*. He noted, "I have come to appreciate the centrality of

the classroom to student success and the critical role the faculty play in retaining students. But I

also learned that the classroom was the domain of institutional action that was given the least

attention" (2012, Kindle Locations 62-64). Tinto discussed the conditions necessary for student

success (expectations, support, assessment with feedback, and involvement) and pointed towards

institutional action as necessary to enhance retention and persistence.

Social connectedness to the institution during the first year was seen as crucial in Tinto's

overview of the research on persistence (Tinto, 2012). By contrast, if social support is not

provided, students (especially minority students) can become marginalized, isolated, and even

hostile. He noted that social support provided four crucial areas that reinforce persistence:

- It eased the transition to college and reduced academic stress levels.

- It enabled students to more easily access informal knowledge from their peers, helping
  them navigate the foreign terrain of the institution.

- It promoted a sense of self-worth, which in turn influenced academic performance.

- It enhanced students' attachment or commitment to the institution and their willingness to
  remain enrolled, which is especially important for underrepresented students, who

sometimes found themselves out of place in a largely majority-serving institution. (2012, Kindle Locations 604-609)

Social support for persistence often came in the form of mentoring, faculty interaction and extracurricular activities for Tinto. These activities were most important during the first year of a student's presence on campus and were meant to be places where both academic learning and emotional support could reinforce their sense of belonging. They should be places where the minority students find a place to be socially engaged (Tinto, 2012).

Tinto (2012) also summarized 10 years of research on financial aid's contribution to persistence. He concluded that financial aid "has an indirect effect via its impact on levels of student engagement" (2012, Kindle Location 654). Tinto argued for a systemic approach to financial aid that intervenes when both short-term and long-term requirements are presented in supporting student persistence. He noted that often students are challenged by delays in their financial aid and require short-term financial support to connect them to their long-term financial resources. In addition, Tinto thought that financial aid is connected to the value seen in the degree or school attendance. Often a student persists in their education and radically adjusts their financial circumstances or work commitments to attend school based upon their perception of the value of their education (Tinto, 2012). He observed that students persist even with part time jobs, part time attendance, or both if they see the value in the educational achievement. By contrast, if that value does not exist, even a small financial burden can have a negative affect on persistence. Thus, Tinto concluded that institutions could greatly influence a student's persistence if they increase the perceived value of the degree at this particular institution. Schools and universities must enhance the student's view of the quality of their education to enhance degree completion.

Academic support served as the centerpiece of student persistence, according to Tinto (2012). "Nothing is more important to student retention than academic support, especially during the critical first year of college, when student retention is still very responsive to institutional intervention" (2012, Kindle Locations 546-547). Tinto recommended an "early warning" system that alerted faculty and staff to students in need of academic support at the beginning of the first year, at the beginning of the first semester of classes. He advised placing academic support personnel within the staffing of key classes in the first semester. This placement would allow them to work seamlessly with the faculty, intervening when necessary, and allowing the student to implement their learning as quickly as possible on their own or, whenever possible, in a learning community. Tinto recommended that institutions develop the first-year faculty and support staff into a professional unit focused on building student-learning teams (Tinto, 2012). He concluded his recent research and institutional proposals with an emphasis on systemic intervention.

> If we hope to make significant gains in retention and graduation, institutions must focus on the classroom experience and student success in the classroom and align classrooms one to another in ways that provide students a coherent pathway that propels them to program completion. In doing so, institutions must also focus on the acquisition of knowledge and skills students require for life after college. Lest we forget, the goal of retention is not only that students stay in college and graduate, but that they learn while doing so. (2012, Kindle Locations 2492-2495)

Tinto (2012) also described other forms of academic support programs. Building summer bridge programs that provide first-year students with study skills, connection to mentoring or tutoring, and an introduction to the academic community were proposed to increase

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student persistence through academic support. Learning communities that navigate through the introductory and research courses for the degree as a cohort were suggested as well as supplemental instruction through classes that bracketed the classroom time or reinforced learning through an online option. Tinto noted that students involved in these types of efforts increased persistence for the institution between 5 to15% from year to year.   Learning communities also provided interconnections between classes, additional support services for the students, and allowed the faculty to set higher expectations for academic achievement. Lastly, Tinto suggested embedding basic-skills instructors into classrooms or grouping students to reinforce basic skills instruction where students may need assistance. He concluded that academic support, like social support, should be provided as soon as it was identified as needed, rather than when the student went for help.

Tinto (2012) described the ideal institution as one that proactively gathered data and assessment on students to improve persistence. Course alignment, orderly course planning, targeting points that provide completion motivation, and specific counseling are needed for students who have a difficult time seeing their path to degree completion. He also felt that long-term investment that brought a change in faculty interaction with students was primary. Adjustments to faculty workload or incentives for faculty were necessary as those who would work with the beginning classes could spare little time or energy for academic support efforts without other institutional adjustment. Finding agreement to implement increasing change towards persistence efforts is often easier to achieve in institutions that retain the small-college environment without the often-fractious large faculty. He felt that the sense of multiple missions often describe divergent courses of action rather than a unified approach. Tinto noted that

technology could often assist faculty with creating a more unified approach in a large institution without creating the overwhelming burden of work.

Tinto concluded this research overview with an emphasis aligning the actions of the institution to persistence. Designing a policy for persistence is only the beginning for Tinto. Institutions must align the faculty, staff, and administration to become aware of student needs and to promote student success. Without institutional leadership from the trustees, the institutional commitment would collapse. For academic, social, and financial support to play their role in Tinto's model, the various publics of the school must work in concert to assist the student to persist.

Persistence in Veteran Populations

DiRamio and Jarvis (2011) surveyed the persistence research from 2007 to 2011 regarding veteran students. They concluded "solid empirical evidence will assist administrators and practitioners with decision-making about services, supports, and programs" (p. 251). They further predicted that research with veterans would shift from focusing on veteran transition and adjustment to degree completion and meeting the challenges of the disabled veteran.

Other recent studies have centered on the entry of the military member into college (Cate, Gerber, & Holmes, 2010), the qualitative need of disabled veterans in college (Carne, 2011), and the correlation of various demographics to academic motivation (Morreale, 2011). Van Dusen (2011) researched the veteran students' intent to persist in education using transition models and an integrated model of student persistence. Though limited to three research universities in Texas, the testing of these two models is helpful for persistence research. Van Dusen concluded that the only significant factor affecting the students' persistence was the sense of belonging that

the Texas schools provided. The veterans clearly felt that school pride was an important element in their intent to persist to college completion.

This study proposed to return to a significant part of Tinto's model of student persistence: social support, financial aid, and academic support (Tinto, 1975, 1999). In addition, this study sought to reflect on Tinto's focus on institutional behavior that affected a student's intent to persist instead of focusing solely on student behavior (Tinto, 2010, 2012; Tinto & Pusser, 2006). By centering on the military students intent to persist, this author intended to provide a description of the relationships of academic, social, and financial support for an ever-growing segment of the university population that may once again have a substantial impact on the nation and the world due to their educational achievement.

CHAPTER THREE: METHODOLOGY

Introduction

This study sought to determine the strength and nature of the relationships between social, academic, and financial support and the intent of military students to persist in higher education at a large private non-profit university. The study also collected data from nonmilitary students to note contrasting relationships.

Participants

A major department within the university was surveyed providing over 294 surveys representative of some 18-20,000 military students from over 60,000 students (Liberty University Advancement Staff, 2010). This stratified sample represented various demographic characteristics and provided a solid base to look for relationships between social, academic, and financial support mechanisms. The Post-9/11 GI Bill also included provision for family members to receive education benefits at the direction of the veteran in return for years of service and thus, some receiving these benefits were not veterans, but family members. In addition, the DoD supplemented job training by paying tuition for spouses of active duty members at certain ranks (Department of Defense, 2011a). The diversity of this population and the support mechanisms sampled in this study are expected to reflect the financial, vocational, and social challenges of the current climate.

Setting

The survey was divided into two groups: those who are military (active, veteran, reserve, and dependents) and those who are not with the military. Various class formats, educational abilities, degree paths, and levels of achievement were represented in this survey. Only face-to-face classes are represented in the present study, though most of the degree was delivered online.

For many of the students, this was their first class. The student sample reflected a full range of student achievement and was not stratified by GPA or degree level.

Research Design

This study used basic correlational techniques to compare the academic, financial, and social support covariables to the persistence of the military, nonmilitary, and combined groups. A linear multivariate regression model determined the contributions of the variables to persistence. Lastly, a stepwise multivariate model of the variables and demographic data combined (20 items) provided the overall contribution of the data to persistence. This three step design was selected as multiple covariables for social, academic, and financial support were used to determine the predictor variable, persistence (Ary, Jacobs, Razavieh, & Sorensen, 2006; Stevens, 2002). The survey (a modified CPQ v2) and demographic data reflected current Common Education Data Standards (National Center for Educational Statistics, 2014) and is contained in Appendix A and was provided to the students in printed form. The survey was then conducted face-to-face in a classroom setting by instructors and hand delivered to the researcher upon completion.

Research questions that guide this study are as follows:

Research Question 1: What is the correlation of social support provided to military students with the intent of these students to persist in their higher educational goals?

Hypothesis 1: The resulting null hypothesis from this question is that the correlation was not statistically significant between the social support systems and the military students' intent to persist in education.

Research Question 2: What is the correlation of academic support provided to military students with the intent of these students to persist in their higher educational goals?

Hypothesis 2: The resulting null hypothesis from this question is that no correlation was statistically significant between academic support systems and the military students' intent to persist in education.

Research Question 3: What is the correlation of financial support provided to military students and a students' intent to persist in their degree program?

Hypothesis 3: The resulting null hypothesis from this question is that no correlation was statistically significant between financial support systems and the military students' intent to persist in education.

Research Question 4: What is the combined relationship of the combination of social, academic, and financial support to the military students' intent to persist in their education?

Hypothesis 4: The resulting null hypothesis from this question is that no statistically significant relationship exists between the combination of the support systems (social, academic and financial systems) and the military students intent to persist in education.

Research Question 5: What statistically significant differences exist for the social, financial, and academic support systems between the military students and their civilian counterparts?

Hypothesis 5: The resulting null hypothesis from this question was that no statistically significant differences exist for the social, financial, and academic support systems between the military students and their civilian counterparts.

Research Question 6: What statistically significant differences exist for the intent to persist between the military students and their civilian counterparts?

Hypothesis 6: The resulting null hypothesis from this question was that no statistical significant differences exist for the intent to persist between the military students and their civilian counterparts.

Data Analysis

The intent of the students to persist in their education is the predictor variable. This variable is measured using a 5-point Likert scale using questions from Davidson et al. (2009) College Persistence Questionnaire v2 (CPQ v2). CPQ v2 is a 73-item questionnaire shortened to 53 items as items 54 through 73 are not statistically associated or correlated to any one factor, but are included in the CPQ v2 for counseling purposes only. The survey instrument is included in Appendix A.

The CPQ v2 is made up of ten factors: Academic Integration, Academic Motivation, Academic Efficacy, Financial Strain, Social Integration, Collegiate Stress, Advising, Degree Commitment, Institutional Commitment, and Scholastic Conscientiousness. Permission to use this questionnaire was received from the authors.

The questions pertaining to the student's intent to persist correspond to the Degree Commitment factor. These questions provide a continuous variable for analysis.

The covariable for financial support is measured by the continuous variable in the CPQ v2 for Financial Strain and supported by descriptive data estimated in dollar amounts (loans, government grants, university scholarships, and other grants and scholarships). Estimated amounts were grouped following a model proposed by Nora et al. (2006) grouping expected contributors to persistence (grants and scholarships) separated from items that contributed negatively to persistence (loans). Thus, government grants + university scholarships + other

grants and scholarships = positive contributors and are considered apart from the chief negative contributor—loans obtained for the degree.

The academic support covariable is drawn from three factors of the CPQ v2: Academic Integration, Academic Motivation, and Academic Efficacy. The Advising, Scholastic Consciousness, and Institutional Commitment factors are not used in this study.

The social support covariable is drawn from the Social Integration and Collegiate Stress factors of the CPQ v2. The first factor provides a positive variable while the second a negative one.

Standard descriptive statistics (means, standard deviations, and Pearson R), prepared by SPSS, describe the correlation of the students' intent to persist in relation to the covariables. Analyses for outlier relationships are then examined for each item in the variables and as aggregates for each variable.

Multicollinearity is examined to test for stability of the covariables. The correlation coefficients R^2 are then examined along with the analysis of variance and the combined relationships, the multiple coefficients, and their correlation to the predictor variable. Results are analyzed at the $p < .05$ level to determine whether the null hypotheses should be rejected (Ary, et al., 2006; M. B. Harris, 1995).

Due to the continuous nature of the predictor and covariables, a multiple regression procedure using SPSS software was conducted to identify the data most associated with the predictor variable. Linear regression was expressed in simplest form as $y = \beta_0 x_0 + \beta_1 x_1 + c$ (Cohen, Cohen, & West, 2003). In this study, y = intent to persist, x = the covariables expressed in the social, financial, and academic support data, β was the regression coefficient for the covariables, and c was the intercept. In this study, 7 data points (6 factors in the CPQ +

financial support descriptors) supported the predictor variable; thus, the formula for this study was $y = \beta_0 x_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 \ldots + \beta_7 x_7 + c$. Each variable was held constant in the computations by adjusting their coefficients so that the impact upon the covariable, y, was identified through the variations in the predictor variables (x_0, x_1, x_2, through x_7).

Thus, this study is designed to provide a correlational analysis using multiple regression analysis of social, academic, and financial support variables in correlation to the students' intent to persist. The combination of these variables is also measured to note the correlation of the subsets of these covariables on the predictor variable. The questionnaire that illustrates the covariables and their subsets, which was used as the basic survey instrument for this study, is included in Appendix A. The descriptive financial support data is in Appendix B and contains data about loans and scholarships. The survey cover sheet and consent form is in Appendix C and the instructions for the survey is in Appendix D. The Institutional Review Board notification and authorization is attached in Appendix E.

CHAPTER FOUR: FINDINGS

Introduction

This study sought to determine the strength and nature of the relationships between social, academic, and financial support and the intent of military students to persist in higher education at a large private non-profit university. The study also collected data from nonmilitary students and combined these findings to note contrasting relationships between military, nonmilitary, and combined populations.

Purpose of the Study

The purpose of this study was to identify the relationships of social, financial, and academic supports to the intent of the military and nonmilitary students to persist in their education. Survey responses from 294 participants were used for this study.

Demographic Data Findings

Table 1 displays the frequency counts for selected variables. Ages of the respondents ranged from "16-24 (8.2%)" to "55-65 (4.4%)" with the median age being 39.50 years. Of those who answered the gender question, there were three times more women ($n = 126$, 42.9%) than men ($n = 42$, 14.3%). The most common racial/ethnic groups were Caucasian (67.4%) and Black (26.5%). Seventy-one percent of the respondents were married. The number of persons in their households ranged from "1 (13.6%)" to "5 to 9 (16.7%)" with the median being three household members. Seventy-three percent of the sample reported never being associated with the military. For the 42 respondents who were either currently in the military or previously in the military (veterans), the most common number of years served was "4-10 years ($n = 23$)." As stated previously, 72.8% had no military association while 80 participants (27.2%) had some sort of current or prior association with the military. The number of years currently working on their

degree ranged from "1 (43.9%)" to "4 or 5 (2.0%)" with the median being two years. Eighty

percent were working on a Master's degree.

Table 1

Frequency Counts for Selected Variables (N = 294)

Variable	Category	*n*	%
Age [a]			
	16-24	24	8.2
	25-34	112	38.1
	35-44	96	32.7
	45-54	49	16.7
	55-65	13	4.4
Gender			
	Male	42	14.3
	Female	126	42.9
	Did not respond	126	42.9
Race/Ethnicity			
	Black	78	26.5
	Caucasian	198	67.4
	Other	18	6.1

[a] Age: *Mdn* = 39.50.

Variable	Category	n	%
Marital Status			
	Married	208	70.7
	Divorced	25	8.5
	Widowed	2	0.7
	Separated	11	3.7
	Never married	48	16.3
Number of persons in household [b]			
	1	40	13.6
	2	67	22.8
	3	58	19.7
	4	80	27.2
	5 to 9	49	16.7
Military Status			
	Military	12	4.1
	Veteran	30	10.2
	Military Dependent	38	12.9
	Never Associated with the Military	214	72.8

[b] Persons in Household: *Mdn* = 3 members.

Variable	Category	n	%
Military Years Served			
	0-3	9	3.1
	4-10	23	7.8
	10-20	7	2.4
	20-30+	3	1.0
	Never	252	85.7
Military Association			
	No	214	72.8
	Yes	80	27.2
Years working on current degree [c]			
	1	129	43.9
	2	128	43.5
	3	31	10.5
	4 or 5	6	2.0
Current Degree Level			
	Masters	236	80.3
	EdS	19	6.5
	EdD	39	13.3

[c] Years Working on Degree: *Mdn* = 2 years.

Table 2 displays the frequency counts for selected financial variables. Household annual income ranged from "$0-$19,999 (7.1%)" to "$100,000 or more (15.3%)" with the median annual income being $50,000. Loans ranged from "$0 (20.1%)" to "$50,500 or more (12.6%)" with the median being $17,750. Other sources of financial support were less common with 67.7% receiving no government grants and aid, 71.1% receiving no university provided scholarships and 83.0% receiving no "other grants and scholarships".

Table 2

Frequency Counts for Selected Financial Variables (N = 294)

Variable	Category	*n*	%
Household Annual Income [a]			
	$0-$19,999	21	7.1
	$20,000-$39,999	52	17.7
	$40,000-$59,999	82	27.9
	$60,000-$79,999	44	15.0
	$80,000-$99,999	50	17.0
	$100,000 or more	45	15.3
Loans [b]			
	$0	59	20.1
	$1-$8,500	30	10.2
	$8,500-$14,999	20	6.8
	$15,000-$20,499	41	13.9
	$20,500-$29,999	68	23.1
	$30,000-$39,999	21	7.1
	$40,000-$49,999	18	6.1
	$50,500 or more	37	12.6

[a] Income: *Mdn* = $50,000.

[b] Loans: *Mdn* = $17,750

Variable	Category	*n*	%
Government grants and aid [c]			
	$0	199	67.7
	$1-$8,500	60	20.4
	$8,500-$14,999	9	3.1
	$15,000-$20,499	11	3.7
	$20,500-$29,999	8	2.7
	$30,000-$39,999	5	1.7
	$40,000-$49,999	0	0.0
	$50,500 or more	2	0.7
University provided scholarships [d]			
	$0	209	71.1
	$1-$8,500	63	21.4
	$8,500-$14,999	12	4.1
	$15,000-$20,499	3	1.0
	$20,500-$29,999	5	1.7
	$30,000-$39,999	2	0.7

[c] Grants and aid: *Mdn* = $0.

[d] Scholarships: *Mdn* = $0

Variable	Category	n	%
Other grants and scholarships [e]			
	$0	244	83.0
	$1-$8,500	44	15.0
	$8,500-$14,999	2	0.7
	$15,000-$20,499	0	0.0
	$20,500-$29,999	4	1.4

[e] Other Grants and scholarships: *Mdn* = $0.

Table 3 displays the psychometric characteristics for the 12 summated scale scores. The Cronbach alpha reliability coefficients ranged in size from $\alpha = .41$ to $\alpha = .84$ with the median sized alpha being $\alpha = .735$ (Table 3). This suggested that some of the scale scores had unacceptably low levels of internal reliability in this particular sample. This is a common occurrence when scales contain few items (Ary et al., 2006).

Table 3

Psychometric Characteristics for the Summated Scale Scores (N = 294)

Scale	Number of Items	*M*	*SD*	Low	High	α
Academic Integration	7	1.30	0.49	-0.29	2.00	.74
Academic Motivation	8	0.52	0.53	-1.38	1.63	.60
Academic Efficacy	5	0.92	0.56	-0.80	2.00	.64
Academic Support	20	0.91	0.38	-0.15	1.83	.74
Financial Support	4	-0.55	1.00	-2.00	2.00	.83
Social Integration	6	0.53	0.66	-1.50	2.00	.74
Collegiate Stress	4	-0.50	0.77	-2.00	1.50	.81
Social Support	10	0.01	0.50	-1.17	1.42	.66
Advising	4	0.80	0.89	-2.00	2.00	.84
Intent to Persist	6	1.50	0.45	-0.17	2.00	.51
Institutional Commitment	4	1.61	0.52	-0.67	2.00	.41
Scholastic Conscientiousness	4	1.26	0.73	-2.00	2.00	.73

Table 4 displays the results of the chi-square tests comparing 11 demographic and financial variables with whether the respondent was associated with the military. Eight of the 11 tests were significant. Specifically, military respondents were more likely to be: (a) older ($p = .001$); (b) male ($p = .004$); (c) non-Caucasian ($p = .01$); (d) living in larger households ($p = .003$); (e) more affluent ($p = .02$); (f) the recipient of government grants and aid ($p = .001$); and (g) the

recipient of university provided scholarships ($p = .001$). In addition, the military respondents

tended ($p = .07$) to be more likely to be married.

Table 4

Chi-Square Test Comparisons for Selected Variables Based on Group (N = 294)

Variable	Category	Non-Military		Military	
		n	%	*n*	%
Age Range [a]					
	16-24	22	10.3	2	2.5
	25-34	93	43.5	19	23.8
	35-44	67	31.3	29	36.3
	45-54	23	10.7	26	32.5
	55-65	9	4.2	4	5.0
Gender [b]					
	Male	23	19.0	19	40.4
	Female	98	81.0	28	59.6
Caucasian [c]					
	No	61	28.5	35	43.8
	Yes	153	71.5	45	56.3

[a] χ^2 (4, $N = 294$) = 27.31, $p = .001$. Cramer's $V = .31$.

[b] χ^2 (1, $N = 294$) = 8.28, $p = .004$. Cramer's $V = .22$.

[c] χ^2 (1, $N = 294$) = 6.15, $p = .01$. Cramer's $V = .15$.

Variable	Category	Non-Military		Military	
		n	%	*n*	%
Married [d]					
	No	69	32.2	17	21.3
	Yes	145	67.8	63	78.8
Number in house [e]					
	1 or 2	90	42.1	17	21.3
	3 or 4	94	43.9	44	55.0
	5 or more	30	14.0	19	23.8
Annual Income [f]					
	Under $40,000	64	29.9	9	11.3
	$40,000-$59,999	59	27.6	23	28.8
	$60,000-$79,999	30	14.0	14	17.5
	$80,000-$99,999	33	15.4	17	21.3
	$100,000 or more	28	13.1	17	21.3

[d] χ^2 (1, $N = 294$) = 3.40, $p = .07$. Cramer's $V = .11$.

[e] χ^2 (2, $N = 294$) = 11.76, $p = .003$. Cramer's $V = .20$.

[f] χ^2 (4, $N = 294$) = 12.36 $p = .02$. Cramer's $V = .21$.

Variable	Category	Non-Military		Military	
		n	%	*n*	%
Loans [g]					
	$0	38	17.8	21	26.3
	$1-$8,500	20	9.3	10	12.5
	More than $8,500	156	72.9	49	61.3
Government grants and aid [h]					
	$0	157	73.4	42	52.5
	$1-$8,500	41	19.2	19	23.8
	More than $8,500	16	7.5	19	23.8
University provided scholarships [i]					
	$0	164	76.6	45	56.3
	$1-$8,500	42	19.6	21	26.3
	More than $8,500	8	3.7	14	17.5

[g] $\chi^2 (2, N = 294) = 3.79, p = .15$. Cramer's $V = .11$.

[h] $\chi^2 (2, N = 294) = 17.30, p = .001$. Cramer's $V = .24$.

[i] $\chi^2 (2, N = 294) = 19.33, p = .001$. Cramer's $V = .26$.

		Non-Military		Military	
Variable	Category	*n*	%	*n*	%
Other grants and scholarships [j]					
	$0	174	81.3	70	87.5
	$1-$8,500	37	17.3	7	8.8
	More than $8,500	3	1.4	3	3.8
Current Degree Level [k]					
	Masters	177	82.7	59	73.8
	EdS	14	6.5	5	6.3
	EdD	23	10.7	16	20.0

[j] χ^2 (2, N = 294) = 4.68, p = .10. Cramer's V = .13.

[k] χ^2 (2, N = 294) = 4.35, p = .11. Cramer's V = .12.

Answering the Research Questions

Research Question 1 asked, "What was the correlation of social support provided to military related students with the intent of these students to persist in their higher educational goals?" and the related null hypothesis predicted that, "the correlation is not statistically significant between the social support systems and the military related students' intent to persist in education." Table 5 displayed the results of the relevant Pearson product-moment correlations related to this question. Intent to persist was not significantly related to the social integration scale (r = .12, p = .28), the collegiate stress scale (r = .06, p = .57), or the social support scale (r = .13, p = .25). This combination of findings retained the null hypothesis.

Table 5

Pearson Correlations for the Intent to Persist Scale with Selected Scale Scores Subdivided into Three Samples

	Intent to Persist Scale Score		
	Non-Military Only	Military Only	All Respondents
Scale Score	$n = 214$	$n = 80$	$N = 294$
Academic Integration	.36 ****	.36 ****	.36 ****
Academic Motivation	.13	.21	.15 **
Academic Efficacy	.31 ****	.26 *	.30 ****
Academic Support	.35 ****	.42 ****	.37 ****
Financial Support	.01	.09	.04
Social Integration	.24 ****	.12	.21
Collegiate Stress	-.01	.06	.02
Social Support	.15 *	.13	.15 **
Advising	.22 ****	.18	.21 ****
Institutional Commitment	.47 ****	.44 ****	.47 ****
Scholastic Conscientiousness	.24 ****	.12	.21 ****

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Research Question 2 asked, "What was the correlation of academic support provided to military related students with the intent of these students to persist in their higher educational goals?" and the related null hypothesis predicted that, "no correlation was statistically significant

between academic support systems and the military related students' intent to persist in education." Table 5 displays the results of the relevant Pearson product-moment correlations for this hypothesis. The intent to persist had a significant positive correlation with the academic support scale score ($r = .42, p < .001$). In addition, the intent to persist was positively related to academic integration ($r = .36, p < .001$) and academic efficacy ($r = .26, p < .05$). This combination of findings provided support to reject the null hypothesis. Though these results were statistically significant for these factors, academic support explained only about 18% of the variance, academic integration only about 13%, and academic efficacy 8%.

Research Question 3 asked, "What correlation existed between financial support provided to military related students and a students' intent to persist in their degree program?" and the related null hypothesis predicted that, "no correlation was statistically significant between financial support systems and the military related students' intent to persist in education." Table 5 displays the results of the relevant Pearson product-moment correlation for this question. Intent to persist was not significantly related to the financial support scale ($r = .09, p = .44$). This finding provided support to retain the null hypothesis.

Research Question 4 asked, "What was the combined relationship of the combination of social, academic, and financial support to the military related students' intent to persist in their education?" and the related null hypothesis predicted that, "no statistically significant relationship existed between the combination of the support systems (social, academic and financial systems) and the military related students' intent to persist in education." Table 6 displayed the relevant multiple regression model for Question 4. The overall model was significant ($p = .007$) and accounted for 20.9% of the variance in the intent to persist. Inspection of the table found that the intent to persist was positively related to academic integration ($\beta = .31$,

p = .009) and tended to be positively related to academic efficacy (β = .21, p = .07). This

combination of findings provided support to reject the null hypothesis.

Table 6

Multiple Regression Model Predicting the Intent to Persist Based on the Combination of Support Systems (Social, Academic, and Financial) for the Military Subsample (n = 80)

Scale Score	B	SE	β	p
Intercept	0.93	0.16		.001
Academic Integration	0.29	0.11	.31	.009
Academic Motivation	0.12	0.09	.14	.19
Academic Efficacy	0.17	0.09	.21	.07
Financial Support	0.04	0.05	.10	.40
Social Integration	0.02	0.08	.03	.82
Collegiate Stress	0.00	0.07	-.01	.96

Full Model: $F (6, 73) = 3.22$, $p = .007$. $R^2 = .209$

Research Question 5 asked, "What statistically significant differences existed for the social, financial, and academic support systems between the military related students and their civilian counterparts?" and the related null hypothesis predicted that, "no statistically significant differences existed for the social, financial, and academic support systems between the military related students and their civilian counterparts." To answer this question, Table 7 displayed the results of the *t* tests for independent means comparing the two groups of students for 11 selected scale scores. Two of 11 scores were significant. Specifically, the military associated students had higher scores for financial support ($p = .002$) and institutional commitment ($p = .03$). The financial support result provided support to reject the null hypothesis and the institutional

commitment score serves as an additional finding in this study. The difference in the mean

scores below for the financial support element showed a 3.6% difference while institutional

support exhibited a 1.5% difference.

Table 7

t Test Comparisons of Selected Scale Scores Based on Type of Student (N = 294)

Scale Score	Military	*n*	*M*	*SD*	η	*t*	*p*
Academic Integration					.03	0.44	.66
	No	214	1.31	0.51			
	Yes	80	1.28	0.45			
Academic Motivation					.09	1.52	.13
	No	214	0.49	0.54			
	Yes	80	0.60	0.49			
Academic Efficacy					.04	0.61	.54
	No	214	0.91	0.58			
	Yes	80	0.95	0.51			
Academic Support					.05	0.82	.42
	No	214	0.90	0.40			
	Yes	80	0.94	0.32			
Financial Support					.18	3.19	.002
	No	214	-0.66	0.99			
	Yes	80	-0.25	0.98			

Scale Score	Military	*n*	*M*	*SD*	η	*t*	*p*
Social Integration					.03	0.56	.58
	No	214	0.54	0.67			
	Yes	80	0.49	0.64			
Collegiate Stress					.08	1.34	.18
	No	214	-0.54	0.77			
	Yes	80	-0.40	0.76			
Social Support					.04	0.66	.51
	No	214	0.00	0.51			
	Yes	80	0.05	0.49			
Advising					.06	1.06	.29
	No	214	0.77	0.89			
	Yes	80	0.89	0.88			
Institutional Commitment					.12	2.14	.03
	No	214	1.58	0.54			
	Yes	80	1.72	0.45			
Scholastic Conscientiousness					.05	0.88	.38
	No	214	1.24	0.74			
	Yes	80	1.33	0.70			

Research Question 6 asked, "What statistically significant difference existed for the intent to persist between the military related students and their civilian counterparts?" and the related null hypothesis predicted that, "no statistical significant difference existed for the intent persist between the military related students and their civilian counterparts." To answer this question, Table 8 displayed the results of the t test for independent means comparing the two groups of students for their intent to persist score. No significant differences were found ($p = .33$) which provided support to retain the null hypothesis.

Table 8

t Test Comparison for Intent to Persist Based on Type of Student (N = 294)

Scale Score	Military	*n*	*M*	*SD*	η	*t*	*p*
Intent to Persist					.06	0.97	.33
	No	214	1.49	0.47			
	Yes	80	1.54	0.42			

Additional Findings

Also in Table 5 were the Pearson correlations for the intent to persist score with the other 11 scales scores based on the non-military sample (*n* = 214) and the entire sample (*N* = 294). For the non-military subsample, the intent to persist was significantly related to 8 of 11 scale scores. The largest correlations were intent to persist with institutional commitment (*r* = .47, *p* < .001), academic integration (*r* = .36, *p* < .001), and academic support (*r* = .35, *p* < .001). For the entire sample (*N* = 294), the intent to persist was significantly related to 8 of 11 scale scores. The largest correlations were intent to persist with institutional commitment (*r* = .47, *p* < .001), academic integration (*r* = .36, *p* < .001), and academic support (*r* = .37, *p* < .001) in Table 5.

Table 9 displayed the multiple regression model predicting the intent to persist based on the combination of support systems for the non-military subsample (*n* = 214). The overall model was significant (*p* = .001) and accounted for 18.0% of the variance in the intent to persist. Inspection of the table found that the intent to persist was positively related to academic integration (β = .29, *p* = .001) and academic efficacy (β = .26, *p* = .001).

Table 9

Multiple Regression Model Predicting the Intent to Persist Based on the Combination of Support Systems (Social, Academic, and Financial) for the Non-Military Subsample (n = 214)

Scale Score	*B*	*SE*	β	*p*
Intercept	0.92	0.10		.001
Academic Integration	0.26	0.08	.29	.001
Academic Motivation	-0.06	0.06	-.07	.30
Academic Efficacy	0.21	0.06	.26	.001
Financial Support	-0.02	0.03	-.05	.52
Social Integration	0.03	0.05	.04	.63
Collegiate Stress	-0.06	0.04	-.10	.17

Full Model: F (6, 207) = 7.60, p = .001. R^2 = .180.

Table 10 displayed the multiple regression model predicting the intent to persist based on the combination of support systems for the entire sample (N = 294). The overall model was significant (p = .001) and accounted for 17.2% of the variance in the intent to persist. Inspection of the table found that the intent to persist was positively related to academic integration (β = .28, p = .001) and academic efficacy (β = .24, p = .001).

Table 10

Multiple Regression Model Predicting the Intent to Persist Based on the Combination of Support Systems (Social, Academic, and Financial) for the Entire Sample (N = 294)

Scale Score	B	SE	β	p
Intercept	0.97	0.08		.001
Academic Integration	0.25	0.06	.28	.001
Academic Motivation	-0.01	0.05	-.01	.90
Academic Efficacy	0.19	0.05	.24	.001
Financial Support	0.00	0.03	.00	.98
Social Integration	0.02	0.04	.03	.65
Collegiate Stress	-0.04	0.04	-.07	.28

Full Model: $F (6, 287) = 9.91, p = .001.$ $R^2 = .172$.

Table 11 displayed the results of the stepwise multiple regression model predicting the intent to persist based on 20 candidate variables for the non-military subsample ($n = 214$). The final 5-variable model was significant ($p = .001$) and accounted for 30.5% of the variance in the intent to persist. Inspection of the table found that the intent to persist was positively related to institutional commitment ($\beta = .40, p = .001$), academic efficacy ($\beta = .22, p = .001$), and scholastic conscientiousness ($\beta = .13, p = .03$). In addition, the intent to persist was negatively related to the amount of university provided scholarships ($\beta = -.13, p = .03$) and collegiate stress ($\beta = -.14, p = .02$).

Table 11

Stepwise Multiple Regression Model Predicting the Intent to Persist Based on Scale Scores and Demographics for the Non-Military Subsample (n = 214)

Scale Score	B	SE	β	p
Intercept	0.74	0.11		.001
Institutional Commitment	0.35	0.05	.40	.001
Academic Efficacy	0.18	0.05	.22	.001
University provided scholarships	-0.08	0.03	-.13	.03
Collegiate Stress	-0.08	0.04	-.14	.02
Scholastic Conscientiousness	0.08	0.04	.13	.03

Full Model: F (5, 208) = 18.30, p = .001. R^2 = .305. Candidate variables = 20.

Table 12 displayed the results of the stepwise multiple regression model predicting the intent to persist based on 20 candidate variables for the military subsample (n = 80). The final 3-variable model was significant (p = .001) and accounted for 32.0% of the variance in the intent to persist. Inspection of the table found that the intent to persist was positively related to institutional commitment (β = .41, p = .001) and academic efficacy (β = .24, p = .02). In addition, the intent to persist was negatively related to the amount of loans (β = -.28, p = .004).

Table 12

Stepwise Multiple Regression Model Predicting the Intent to Persist Based on Scale Scores and

Demographics for the Military Subsample (n = 80)

Scale Score	B	SE	β	p
Intercept	0.90	0.18		.001
Institutional Commitment	0.38	0.09	.41	.001
Loans	-0.05	0.02	-.28	.004
Academic Efficacy	0.19	0.08	.24	.02

Full Model: F (3, 76) = 11.91, p = .001. R^2 = .320. Candidate variables = 20.

Table 13 displayed the results of the stepwise multiple regression model predicting the intent to persist based on 20 candidate variables for the entire (N = 294). The final 4-variable model was significant (p = .001) and accounted for 28.1% of the variance in the intent to persist. Inspection of the table found that the intent to persist was positively related to institutional commitment ($β$ = .36, p = .001), academic efficacy ($β$ = .18, p = .001), and academic integration ($β$ = .14, p = .01). In addition, the intent to persist was negatively related to the amount of government grants and aid ($β$ = -.11, p = .03).

Table 13

Stepwise Multiple Regression Model Predicting the Intent to Persist Based on Scale Scores and Demographics for the Entire Sample (N = 294)

Scale Score	*B*	*SE*	β	*p*
Intercept	0.76	0.09		.001
Institutional Commitment	0.31	0.05	.36	.001
Academic Efficacy	0.14	0.04	.18	.001
Academic Integration	0.13	0.05	.14	.01
Government grants and aid	-0.04	0.02	-.11	.03

Full Model: F (4, 289) = 28.17, p = .001. R^2 = .281. Candidate variables = 20.

Summary

In summary, this study examined the survey results from 294 participants to identify the relationships of social, financial, and academic support to the intent of the military, veteran, or family member student to persist in their education. Hypothesis 1 (social support and intent to persist) was not supported (Table 5). Hypothesis 2 (academic support and intent to persist) was supported (Table 5). Hypothesis 3 (financial support and intent to persist) was not supported (Table 5). Hypothesis 4 (multiple support systems and intent to persist) was supported (Table 6). Hypothesis 5 (differences in support systems based on type of student) was supported (Table 7). Hypothesis 6 (differences in intent to persist based on type of student) was not supported (Table 8). In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn, and a series of recommendations will be suggested.

CHAPTER FIVE: DISCUSSION

Introduction

The findings of this paper clearly support Tinto's persistence theory and research. Tinto's (1987, 1999, 2010, 2012) theory predicts that academic, financial, and social support mechanisms are directly or indirectly related to persistence. He proposes that academic support is the most important factor of the three. Pascarella and Terenzini (1980) supports Tinto's proposal and notes that the strength of academic and social supports contribute to well over half of the students' reasons for persisting in their education. This research reinforces Tinto's overall conclusions and provides some overlap and contrast with the Pascarella and Terenzini's research.

The purpose of this paper was to capture the correlation and strength of financial, social, and academic supports to military students persistence in education and compare them to nonmilitary students. Each of these three support mechanisms were looked at singly in their relationships to persistence with military students, and the strength of their contribution measured. These supports were then combined with additional financial and demographic information and placed in a stepwise multivariate equation designed to identify those areas that contributed to persistence. The final results were then compared between the two populations, military and nonmilitary students.

Summary of Findings

The overall results of this examination supported the theory that academic support is a key element of student persistence. Both social and financial support elements did not clearly have a direct correlation to persistence, which was an unexpected result of this study. However, these covariables provided support for the overall persistence system when combined with other data.

Persistence itself was not significantly different with the two groups. Both military and nonmilitary students weighted similarly when it came to their intent to persist to degree completion.

When applying a multivariate technique to the military students scores, academic support, as seen through the survey factors for academic efficacy and academic integration, was found to have the greatest contribution to persistence. When applying correlational methods, academic support accounted for 18.0% of the variance with persistence. For nonmilitary students, the combined multivariate model showed that academic support provided a significant contribution to persistence, again through academic efficacy and academic integration. The correlation was significant with academic support providing about 18.0% of the variance with persistence. Little difference in these findings (17% of the variation) occurred with the combined population.

<center>**Findings with Additional Data**</center>

In addition, this survey captured support provided by advising, institutional commitment, and scholastic conscientiousness elements. Some of these areas provided statistically significant contributions to persistence.

Institutional commitment provided a significant relationship to persistence in the combined population and alone accounted for 22% of the variance. The other two support elements captured outside this study, advising and scholastic conscientiousness, showed little direct correlation to persistence. When comparing the military and nonmilitary students, institutional support showed a higher correlation with the military students.

When considering these additional items alongside financial, academic, and support elements, institutional commitment once again showed a statically significant correlation to

<center>90</center>

persistence (22% of the variance) along with academic integration (12.96% of the variance) and

academic support (13.7% of the variance). When the nonmilitary population was looked at

alone, the larger set of factors contributing to persistence resulted in institutional commitment

(22% of the variance), academic integration (12.3%), and academic support (12.3%). With some

contrast, the military group showed institutional commitment (19.4%), academic support

(17.6%), and academic integration (13.9%) as significantly related to persistence.

When combining these additional items with the main study elements and the

demographic elements (20 items) into a stepwise multiple regression model, the results varied.

For the overall group, institutional commitment, academic efficacy, academic integration, and

government grants and aid contributed to 28.1% of the variance in persistence. Government

grants and aid contributed negatively to this model. Using the same 20 item model to look at the

nonmilitary students alone yielded five predictors of persistence including institutional

commitment, academic efficacy, and scholastic conscientiousness as positive correlations and

university provided scholarships and collegiate stress as negative correlations (a total of 30.5%

of the variance). When this same 20-item stepwise multivariate model was applied to the

military students, 32.0% of the variance was found in three items: institutional commitment,

loans, and academic efficacy. Loans data was a negative contributor to this model.

In summary, when restricted to the study questions, academic support was the significant

contributor to the students' intent to persist. Financial support was different for the two groups

with loans negatively impacting military students and university grants and aid negatively

impacting nonmilitary students. When considering additional support factors beyond the

questions asked in the study, institutional support showed an overarching, consistent, and

significant contribution to persistent in both groups of students. In addition, the demographic

data, when weighted with the support data, highlighted differences, especially concerning financial support, between the two groups.

Discussion of Findings

The key findings of this study centered in the strength of the academic and institutional support variables on student persistence. The financial support variable and data (i.e., loans and university grants and aid) had a statistically significantly, though minor and negative, effect on persistence as well.

In general, this study supported much of the research surrounding Tinto's persistence theory. Tinto's initial research emphasized the three support elements, financial, social, and academic (Tinto, 1975, 1987, 1997, 1999) and noted that these elements provided structures that mitigated dropout, thus increasing persistence. This study clearly supports Tinto's use of financial and academic elements as an aggregate to assist students in persistence.

Tinto's seminal work, centered on Durkheim's suicide theory and cost-benefit analysis theory, sought to provide a foundation to explain dropouts and the contrasting social integration necessary to bring persistence (Tinto & Cullen, 1973). In this early research, Tinto and Cullen also emphasized the institutional support necessary to provide a fabric for persistence:

It is the characteristics of the institution; its resources, facilities, structural arrangements, and composition of its members, which place limits upon the development and integration of individuals within the institution and which lead to the development of academic and social climates, or "presses," with which the individual must come to grips. (Tinto & Cullen, 1973, p. 65)

In recent years, Tinto has returned to this emphasis on institution support echoing this seminal research (Tinto, 2010, 2012; Tinto & Pusser, 2006). This study also supports Tinto's focus on institutional support.

Pascerella and Terenzini (1980; 1991; 1997; 2005) noted in their early research the power of the academic and social partnership from Tinto's model. Pascerella and Terenzine's (1980a; 1980b; 1980c) early studies showed that interaction with faculty (informal and formal) as well as interaction with fellow students accounted for anywhere from 35% to just over 50% of a student's persistence. Pascerella continued this research in a more focused fashion in both a one sample and in a 19-school longitudinal study (Pascarella, et al., 2008; Pascarella, et al., 2011). He noted that student faculty interactions (in and out of the classroom) led to greater student satisfaction, which in turn greatly affected persistence. Pascerella noted in these studies that a one unit increase in positive interaction appeared to increase the odds of a student reenrolling by a factor of 1.4, meaning that the ratio of positive teacher interaction is 1:1.4 when related to persistence. Pascerella's research regarding academic support is supported by the conclusions of this study in military, nonmilitary, and combined models.

Institutional commitment and academic support were also important measures in the seminal study for the CPQ v1 (Davidson et al., 2009) and for a subsequent study using the CPQ v2 in a strictly online school (Beck & Milligan, 2014). In Beck and Milligan (2014), the emphasis was on providing a model for institutional commitment in the online environment. Seven of the CPQ elements were seen to be statistically significant accounting for 35% of a student's persistence; financial support was not statistically significant.

Financial support was often listed as a positive contributor in persistence research (Gururaj et al., 2010). In this study, loans negatively contributed to the military students' intent

to persist and financial aid negatively contributed to the overall group. This supports findings from Cofer and Somers (2001) who noted that students dependent on financial aid (grants and loans) were 7.9% less like to persist in their education.

The results of this study contrasted with much of the literature. For example, a number of research summaries found that aid in any form is helpful to persistence (Gururaj et al., 2010; Murdock, 1990). A number of qualitative studies point to the need for increased and more organized financial aid to help with persistence (Barr, 2013; DiRamio, Ackerman, & Mitchell, 2008; Grimes et al., 2011; Nora et al., 2006; Wurster et al., 2013). Other studies point to the inclusive nature of current financial aid research and call for new models for research (Braxton & Lee, 2005; J. Chen & Zerquera, 2011; R. Chen, 2008; Pascarella & Terenzini, 2005; St. John & Chen, 2011).

Social support did not make a significant contribution to persistence in this study. This contrasted sharply with other research that cited the importance of social support to persistence in education (Pascarella & Terenzini, 2005; Roberts & Styron, 2010; Smith-Osborne, 2009a). Roberts and Styron (2010) reported that a lack of social connectedness predicted dropout rates closely followed by a lack of faculty approachability. Using these measures they predicted with 58.9% accuracy those who would persist in their education. These researchers recommended study cohorts and "learning communities" to increase the sense of social connectedness. Smith-Osborne (2009), while working with a disabled veteran population, noted that social support was one of two keys to reinforcing persistence (the other was non-labor income). She suggested that mentoring, personal assistants, and informational social networks be required for disabled veterans. In a third study, Crisp (2010) surveyed community college students noting that mentoring, social integration, and academic integration explained 44% of the students'

persistence. She concluded that mentoring would provide the academic and social integration necessary to mediate persistence through goal commitment.

Little contrasting information existed to unlink academic support from persistence research; however, some recent research provided a different point of view of this support mechanism. Pascarella et al., (2011) concluded that academic support in the form of clear instruction provided impact to an underlying causal mechanism for persistence, which is student satisfaction. Though this study looked at academic support mechanisms, student satisfaction was not measured and thus identifying academic support as a mediating influence cannot be determined.

Variations in persistence research could be attributed to the range of differing methodologies, population samples, or selection and definition of variables. Definition of financial aid variables was extremely complex and shifting with each institutional (governmental, collegiate, and community) attempt to provide aid to students (J. Chen & Zerquera, 2011). Social support variables varied as well in focus and definition (e.g., disabled veterans vs. veterans and whether social support involved informal teacher involvement). Social supports often overlapped with academic support variables as so much of the educational process (even online) had a definite, clear social climate (e.g., mentoring or scaffolding). Semantically, the variables for academic efficacy and academic integration in the CPQ v2 were not clearly aligned with some of the research in the field. For example, Pascarella et al., (2011) study categories contrasted greatly with earlier definitions in Pascarella and Terenzini (1980) though they were closely related in their scope and conclusions and defined the same variables considered in the CPQ v2.

In addition, the population for this study, graduate students from a private non-profit institution, differed sharply with the community college, undergraduate, and multiple school samples. The most contrasting demographic was the number of married students, about 71%. According to the U.S. Census (Simmons, 2012), about 53% of the U.S. population was married in 2011 with marriage rates lower between 18-24 years and other groups rather uniformly distributed. Married students were obviously overrepresented in this graduate-aged sample. Household size also differed greatly with national data: one person households were 13% in this study and 23% of the U.S. population, two person households were 23% in this study and 46% in the U.S., three person households were 20% and 13% in the U.S., four person households were 27% and 11% in the U.S., and five or more was 17% of our sample while only 8% in the U.S. (U.S. Census Bureau, 2014). The study sample was skewed towards larger-sized households and more married students than the current U.S. population. Most other demographics reflected the 2012 U.S. population estimates.

Methodologically, qualitative studies provided greatly differing results than quantitative methods. And the primary variable for these studies, persistence, was often restricted to completing a degree or graduating from school. Lastly, recent persistence research has shifted to finding mediating variables correlated to persistence instead of looking at the direct effect on persistence by support mechanisms.

In spite of these areas of difference, academic and institutional were highly correlated to persistence in this study and the current literature. Social supports related to persistence were not clearly supported. The negative impact of financial support mechanisms in the multivariate analysis must not be overlooked.

Due to the breadth of this study, the researcher chose to treat financial aid as an aggregate. Military grants and aid (e.g., GI Bill, TA, and MyCAA) were blended, as were various loans and university or community grants and scholarships. This treatment of the financial aid data and lack of breadth in financial support survey items may have weakened the desired results. This method contrasted with researchers interested in segmented, focused relationships between the variables (J. Chen & Zerquera, 2011). However, the power of the demographic data to show statistical significance in the stepwise multiple regression models with military, nonmilitary, and overall population results should not be pushed aside. The observation that increased loans to military students may actually decrease persistence was not an anomaly; nor was the nonmilitary group's negative relationship to university scholarships or the overall population's negative relationship to government grants and aid.

In addition to the financial, academic, and institutional findings, this study showed that the nonmilitary subsamples negative relationship to collegiate stress and positive linkage to scholastic conscientiousness was supported. These CPQ v2 factors summarized the sense of stressful sacrifice, for collegiate stress, and timely response to class demands, for scholastic conscientiousness. These two areas had a statistically significant relationship to persistence for the nonmilitary group and, though not a primary focus of this study, should be highlighted.

Implications for Policy

Academic and institutional supports were clearly helpful for persistence. Focused policies that bring clear class structure, course deadlines, institutional belonging, and school loyalty should be stressed. Reassessing financial aid policies that increase loans for military students, emphasize government grants for nonmilitary students, and magnify university scholarships for all students are areas for policy revision.

These policies should be extended into opportunities for teachers to clearly communicate about academic requirements and structure with students. Revision of online software and increased contact with students can provide basic mechanisms for policy implementation as basic restrictions with class tools and format can disconnect policy changes.

Policies for institutional belonging and loyalty should be formulated to reflect the academic excellence and accomplishment of the institution. These must include a focus on and value of obtaining an academically superior degree that comes from a tradition and record of competent success. Increasing feelings of loyalty toward the school by seeing the success of other graduates and current students must become a part of the public story of the university, supported by policy.

Implications for Practice

The results of this study clearly pointed to important areas to reinforce in educational practice. Recommendations for practice from the current research literature are summarized in in the following table (Table 14).

Table 14

Summary of recommendations for practice from other sources

Support Element	Recommendations	Source
Social Support	Strengthen student-teacher relationships	Pascarella and Terenzini (1980)
	Provide mentoring	Crisp (2010)
	Involve families in encouraging completion	Hossler, et al (2008)
	Increase social networks	Karp (2011), Barnett (2011)
	Increase information within social networks	Smith-Osborne (2009)
Financial Support	Student loans decrease persistence	Kim (2007), Nora, et al (2006)
	Continue aid through degree completion for ethic and poorer students	Chen (2008), Kim (2007),
	Provide one large source of financial aid	La Nasa & Rogers (2009), Nora, et al (2006)
	Integrate academic and financial aid counseling	Hossler, Ziskin, & Gross (2009)
Academic Support	Focus on organized and clear instruction	Pascarella, E. T., Salisbury, M., & Blaich, C. F. (2011)
	Strengthen student-teacher relationships	Pascarella and Terenzini (1980)
	Provide focused, first-year support integrated in the classroom	Tinto (2012)

As a result of this study, further recommendations for practice include strengthening

academic support so that both military and nonmilitary students receive clear feedback and

results from instructors. Policies should build the academic confidence and achievement of each student, which supports one of the chief findings of this study.

Secondly, minimizing loans for military students, government grants for nonmilitary, and university scholarships may increase degree completion. Formulation of policies that carefully align degree completion for each of these groups while minimizing the various forms of financial aid is required.

As an extension of this study, institutional commitment policies should reinforce institutional loyalty and belonging, confidence in school excellence, and institutional commitment to degree completion. These policies should include the academic excellence, research acumen, and positive influence of the school and be designed to increase student participation in each of these important university functions. Academic and institutional supports powerfully contribute to persistence and should become cornerstones for policy and programs.

Though possibly not appropriate for policy formulation, creation of a number of programs and processes would align with the contributors to persistence reflected in this study. Decreasing collegiate stress and the sense of pressure in the academic workload might be achieved through time management and constant encouragement from faculty and staff. Another extension of this study would include providing clear course schedules and academic deadlines so that students can have a sense of accomplishment and responsibility.

Though not supported by this study, social support and advising mechanisms should not be neglected. These elements were powerful supports for disabled veterans, first-year students, and complex financial aid systems by other studies (Smith-Osborne, 2009a, 2009b; Vance & Miller, 2009).

Limitations

This study used a one-university, graduate level sample as for its results. This limitation may make generalizability of the findings a challenge. Longitudinal data and a broader study population would yield more generalizable results as is noted of most recent persistence research (Pascarella, 2006). A follow-up study with this cohort of students, broadening the population to other academic levels, and differing types of schools (i.e., state sponsored, for-profit, or strictly online) would bring clarity to the results.

Demographic information for gender was not fully provided as requested in the survey. Almost 43% of the respondents did not identify their gender, likely due to the crowded position of this item on the survey. Not only did incomplete data impact this study, different survey items may have provided greater clarity in other areas as well. Loan and benefit categories, which reflected the current NCES items, may have provided greater clarity if these items were not broadly focused. For example, the first category of loans ($0-8500) reflected a large range in financial data and may have yielded more granular results for the impact of loans in the various statistical models or population groups.

More precise definitions of financial aid would provide a research base for persistence conclusions (J. Chen & Zerquera, 2011). Study participants may not have understood clearly the university, government, or veterans' benefits grouped in the survey or taken time to accurately tabulate the number of benefits received. Often students do not realize that the university provided tuition and fee scholarships and may need research the amount of tuition assistance or GI Bill benefits they receive. The CPQ v2 survey contains a limited number of items for financial aid and defines social and academic support categories in clearly separated subsets.

Future studies are recommended to establish the breadth of financial aid impact and clearly delineate the roles and areas of overlap in academic and social support mechanisms (e.g., is mentoring academic or social?). Lastly, further studies of various aspects of the student experience (military/nonmilitary online vs. face-to-face, GI Bill and other financial aid, or on campus presence vs. commuter) would capture more of the social support and academic mechanisms and provide a more diverse context for identifying contributors to persistence (Beck & Milligan, 2014; Pascarella, 2006).

Conclusions

This study sought to determine the strength and nature of the relationships between social, academic, and financial support and the intent of military students to persist in higher education at a large private non-profit university. The study also collected data from nonmilitary students to note contrasting relationships and looked at overall results for the two groups combined.

Multivariate stepwise models confirmed the emphasis on academic support for persistence towards degree completion with all groups. Financial aid affects varied by military, nonmilitary, and for the overall population; military students were negatively affected by loans, nonmilitary by university scholarships, and the overall sample by government grants and aid. Lastly, an overarching and strong relationship was noted as an additional finding in this study for institutional support for military, nonmilitary, and combined groups.

The results of this study imply the need for new policies and shifts in practices. Academic and institutional support mechanisms must not be neglected if students are to persist in their education. Revision of policies and best practices to consistently support institutional identity and academic excellence should become a main part of the vision and mission of

universities. Financial aid supports should be carefully examined to determine their strength to persistence. Differences exist between military and nonmilitary students concerning financial aid and should be taken into account. Social supports require further study to determine their usefulness in persistence. This study did not find evidence that they were statistically significant to degree completion.

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Race   ❑ Asian/Pacific Islander   ❑ American Indian/Alaska Native
         ❑ Black   ❑ Hispanic   ❑ Caucasian ❑ Other

Marital Status   ❑ Married   ❑ Divorced   ❑ Widowed ❑ Separated   ❑ Never married

Number of persons in your household? ____

Are you: ❑ Military   ❑ Veteran   ❑ Military Dependent ❑ Never Associated with the Military
If you served in the military how may years did you serve?
❑ 0-3   ❑ 4-10   ❑ 10-20   ❑ 20-30+   ❑ never
What is your estimated yearly household income:
❑ $0-19,999   ❑ $20,000-39,999   ❑ $40,000-59,999
❑ $60,000-79,999   ❑ $80,000-99,999   ❑ $100,000 or more

Scholarships and Loans. Please estimate the amount of financial support you have gained for your education *during your current degree* from the following:
Loans
❑ $0   ❑ $1-8,500   ❑ $8,500-14,999
❑ $15,000-20,499   ❑ $20,500-29,999   ❑ $30,000-39,999
❑ $40,000-49,999   ❑ 50,500 or more   ❑ Don't know

Government grants and aid (including the GI Bill, Pell Grants and others)
❑ $0   ❑ $1-8,500   ❑ $8,500-14,999
❑ $15,000-20,499   ❑ $20,500-29,999   ❑ $30,000-39,999
❑ $40,000-49,999   ❑ 50,500 or more   ❑ Don't know

University provided scholarships (including tuition and fee discounts)
❑ $0   ❑ $1-8,500   ❑ $8,500-14,999
❑ $15,000-20,499   ❑ $20,500-29,999   ❑ $30,000-39,999
❑ $40,000-49,999   ❑ 50,500 or more   ❑ Don't know

Other grants and scholarships (Community groups and professional scholarships)
❑ $0   ❑ $1-8,500   ❑ $8,500-14,999
❑ $15,000-20,499   ❑ $20,500-29,999   ❑ $30,000-39,999
❑ $40,000-49,999   ❑ 50,500 or more   ❑ Don't know

How many years have you been working on your current degree? _____

What level is your current degree?   ❑ Masters   ❑ EdS   ❑ EdD

1. On average across all your courses, how interested are you in the things that are
    being said during class discussions?
❑ *very interested*   ❑ *somewhat interested*   ❑ *neutral*   ❑ *somewhat disinterested*
     ❑ *very disinterested*   ❑ *not applicable*

2. What is your overall impression of the other students here?
❑ *very favorable*   ❑ *somewhat favorable*   ❑ *neutral*   ❑ *somewhat unfavorable*
     ❑ *very unfavorable*   ❑ *not applicable*

3. How supportive is your family of your pursuit of a college degree, in terms of their
    encouragement and expectations?
❑ *very supportive*   ❑ *somewhat supportive*   ❑ *neutral*   ❑ *somewhat unsupportive*
     ❑ *very unsupportive*   ❑ *not applicable*

4. Students differ quite a lot in how distressed they get over various aspect of college life.
    Overall, how much stress would you say that you experience while attending this
    institution?
❑ *very much stress*   ❑ *much stress*   ❑ *some stress*   ❑ *a little stress*
     ❑ *very little stress*   ❑ *not applicable*

5. How easy is it to get answers to your questions about things related to your education here?
❑ *very easy*   ❑ *somewhat easy*   ❑ *neutral*   ❑ *somewhat hard*
     ❑ *very hard*   ❑ *not applicable*

6. In general, how enthused are you about doing academic tasks?
❑ *very enthusiastic*   ❑ *somewhat enthusiastic*   ❑ *neutral*   ❑ *somewhat unenthusiastic*
     ❑ *very unenthusiastic*   ❑ *not applicable*

7. College students have many academic responsibilities. How often do you forget those that
    you regard as important?
❑ *very often*   ❑ *somewhat often*   ❑ *sometimes*   ❑ *rarely*
     ❑ *very rarely*   ❑ *not applicable*

8. How confident are you that this is the right college or university for you?
❑ *very confident*   ❑ *somewhat confident*   ❑ *neutral*   ❑ *somewhat unconfident*
     ❑ *very unconfident*   ❑ *not applicable*

9. How often do you worry about having enough money to meet your needs?
❑ *very often*   ❑ *somewhat often*   ❑ *sometimes*   ❑ *rarely*
     ❑ *very rarely*   ❑ *not applicable*

10. How confident are you that you can get the grades you want?
❑ *very confident*   ❑ *somewhat confident*   ❑ *neutral*   ❑ *somewhat unconfident*
     ❑ *very unconfident*   ❑ *not applicable*

11. Some courses seem to take a lot more time than others. How much extra time are you willing to devote to your studies in those courses?
❑ *very much extra time*   ❑ *much extra time*   ❑ *some extra time*   ❑ *a little extra time*
     ❑ *very little extra time*   ❑ *not applicable*

12. In general, how satisfied are you with the quality of instruction you are receiving here?
❑ *very satisfied*   ❑ *somewhat satisfied*   ❑ *neutral*   ❑ *somewhat dissatisfied*
     ❑ *very dissatisfied*   ❑ *not applicable*

13. How much have your interactions with other students had an impact on your personal growth, attitudes, and values?
❑ *very much*   ❑ *much*   ❑ *some*   ❑ *little*
     ❑ *very little*   ❑ *not applicable*

14. How difficult is it for you or your family to be able to handle college costs?
❑ *very difficult*   ❑ *somewhat difficult*   ❑ *neutral*   ❑ *somewhat easy*
     ❑ *very easy*   ❑ *not applicable*

15. How inclined are you to do most of your studying within 24 hours of a test rather than earlier?
❑ *very inclined*   ❑ *somewhat inclined*   ❑ *a little inclined*   ❑ *not very inclined*   ❑ *not at all inclined*   ❑ *not applicable*

16. At this moment in time, how strong would you say your commitment is to earning a college degree, here or elsewhere?
❑ *very strong*   ❑ *somewhat strong*   ❑ *neutral*   ❑ *somewhat weak*
     ❑ *very weak*   ❑ *not applicable*

17. How much pressure do you feel when trying to meet deadlines for course assignments?
❑ *extreme pressure*   ❑ *much pressure*   ❑ *some pressure*   ❑ *a little pressure*   ❑ *hardly any pressure at all*   ❑ *not applicable*

18. How satisfied are you with the academic advising you receive here?
❑ *very satisfied*   ❑ *somewhat satisfied*   ❑ *neutral*   ❑ *somewhat dissatisfied*
     ❑ *very dissatisfied*   ❑ *not applicable*

19. How well do you understand the thinking of your instructors when they lecture or ask students to answer questions in class?
❑ *very well*   ❑ *well*   ❑ *neutral*   ❑ *not well*
     ❑ *not at all well*   ❑ *not applicable*

20. How often do you turn in assignments past the due date?

❏ *very often* ❏ *somewhat often* ❏ *sometimes* ❏ *rarely*
   ❏ *very rarely* ❏ *not applicable*

21. How much thought have you given to stopping your education here (perhaps transferring to another college, going to work, or leaving for other reasons)?

❏ *a lot of thought* ❏ *some thought* ❏ *neutral* ❏ *little thought*
   ❏ *very little thought* ❏ *not applicable*

22. How often do you read educationally-related material not assigned in courses?

❏ *very often* ❏ *somewhat often* ❏ *sometimes* ❏ *rarely*
   ❏ *very rarely* ❏ *not applicable*

23. How strong is your sense of connectedness with others (faculty, students, staff) on this campus?

❏ *very strong* ❏ *somewhat strong* ❏ *neutral* ❏ *somewhat weak*
   ❏ *very weak* ❏ *not applicable*

24. How good are you at correctly anticipating what will be on tests beforehand?

❏ *very good* ❏ *somewhat good* ❏ *neutral* ❏ *somewhat bad*
   ❏ *very bad* ❏ *not applicable*

25. When you think of the people who mean the most to you (friends and family), how disappointed do you think they would be if you quit school?

❏ *very disappointed* ❏ *somewhat disappointed* ❏ *neutral* ❏ *not very disappointed*
   ❏ *not at all disappointed* ❏ *not applicable*

26. How satisfied are you with the extent of your intellectual growth and interest in ideas since coming here?

❏ *very satisfied* ❏ *somewhat satisfied* ❏ *neutral* ❏ *somewhat dissatisfied*
   ❏ *very dissatisfied* ❏ *not applicable*

27. When considering the financial costs of being in college, how often do you feel unable to do things that other students here can afford to do?

❏ *very often* ❏ *somewhat often* ❏ *sometimes* ❏ *rarely*
   ❏ *very rarely* ❏ *not applicable*

28. When you think about your overall social life here (friends, college organizations, extracurricular activities, and so on), how satisfied are you with yours?

❏ *very satisfied* ❏ *somewhat satisfied* ❏ *neutral* ❏ *somewhat dissatisfied*
   ❏ *very dissatisfied* ❏ *not applicable*

29. Students vary widely in their view of what constitutes a good course, including the notion that the best course is one that asks students to do very little. In your own view, how much work would be asked of students in a really good course?
❏ *very much*　　　　❏ *much*　　　　　　　❏ *some*　　　❏ *little*
　　❏ *very little*　　　　❏ *not applicable*

30. There are so many things that can interfere with students making progress toward a degree, feelings of uncertainty about finishing are likely to occur along the way. At this moment in time, how certain are you that you will earn a college degree?
❏ *very certain* ❏ *somewhat certain*　　　　❏ *neutral*　　❏ *somewhat uncertain*
　　❏ *very uncertain*　　　❏ *not applicable*

31. How often do you feel overwhelmed by the academic workload here?
❏ *very often*　　　　❏ *somewhat often*　　　　❏ *sometimes*　　　　❏ *rarely*
　　❏ *very rarely*　　　❏ *not applicable*

32. How well does this institution communicate important information to students such as academic rules, degree requirements, individual course requirements, campus news and events, extracurricular activities, tuition costs, financial aid and scholarship opportunities?
❏ *very well*　　　　❏ *well*　　　　　　　❏ *neutral*　　　　❏ *not well*
　　❏ *not at all well*　　❏ *not applicable*

33. How much of a connection do you see between what you are learning here and your future career possibilities?
❏ *very much*　　　　❏ *much*　　　　　　❏ *some*　　　　❏ *little*
　　❏ *very little*　　　❏ *not applicable*

34. How often do you miss class for reasons other than illness or participation in school-related activities?
❏ *very often*　　　　❏ *somewhat often*　　　　❏ *sometimes*　　　　❏ *rarely*
　　❏ *very rarely*　　　❏ *not applicable*

35. How much have your interactions with other students had an impact on your intellectual growth and interest in ideas?
❏ *very much*　　　　❏ *much*　　　　　　❏ *some*　　　❏ *little*
　　❏ *very little*　　　❏ *not applicable*

36. How often do you encounter course assignments that are actually enjoyable to do?
❏ *very often*　　　　❏ *somewhat often*　　　　❏ *sometimes*　　　　❏ *rarely*
　　❏ *very rarely*　　　❏ *not applicable*

37. When you consider the techniques you use to study, how effective do you think your study skills are?
❏ *very effective*　　　❏ *somewhat effective*　　　❏ *neutral*　　❏ *somewhat ineffective*
　　❏ *very ineffective*　　❏ *not applicable*

38. After beginning college, students sometimes discover that a college degree is not quite as important to them as it once was. How strong is your intention to persist in your pursuit of the degree, here or elsewhere?

❏ *very strong* ❏ *somewhat strong* ❏ *neutral* ❏ *somewhat weak*
  ❏ *very weak* ❏ *not applicable*

39. How concerned about your intellectual growth are the faculty here?

❏ *very concerned* ❏ *somewhat concerned* ❏ *neutral* ❏ *somewhat unconcerned*
  ❏ *very unconcerned* ❏ *not applicable*

40. How much do you think you have in common with other students here?

❏ *very much* ❏ *much* ❏ *some* ❏ *little*
  ❏ *very little* ❏ *not applicable*

41. This semester, how much time do you spend studying each week relative to the number of credit hours you are taking? Assume each credit hour equals one hour of studying per week.

❏ *many more hours studying than the credit hours* ❏ *a few more hours studying than the credit hours*
❏ *the same number of hours studying as the credit hours* ❏ *a few less hours studying than the credit hours*
❏ *a lot less hours studying than the credit hours* ❏ *not applicable*

42. How much of a financial strain is it for you to purchase the essential resources you need for courses such as books and supplies?

❏ *very large strain* ❏ *somewhat of a strain* ❏ *neutral* ❏ *a little strain* ❏ *hardly any strain at all* ❏ *not applicable*

43. When you are waiting for a submitted assignment to be graded, how assured do you feel that the work you have done is acceptable?

❏ *very assured* ❏ *somewhat assured* ❏ *neutral* ❏ *somewhat unassured*
  ❏ *very unassured* ❏ *not applicable*

44. How much do other aspects of your life suffer because you are a college student?

❏ *very much* ❏ *much* ❏ *some* ❏ *little*
  ❏ *very little* ❏ *not applicable*

45. How often do you arrive late for classes, meetings, and other college events?

❏ *very often* ❏ *somewhat often* ❏ *sometimes* ❏ *rarely*
  ❏ *very rarely* ❏ *not applicable*

46. How much time do you spend proofreading writing assignments before submitting them?

❏ *a lot* ❏ *some* ❏ *little* ❏ *very little*
  ❏ *none* ❏ *not applicable*

47. How much doubt do you have about being able to make the grades you want?
❑ *very much doubt*   ❑ *much doubt*   ❑ *some doubt*   ❑ *little doubt*
          ❑ *very little doubt*   ❑ *not applicable*

48. How would you rate the academic advisement you receive here?
❑ *excellent*   ❑ *good*   ❑ *fair*   ❑ *poor*
          ❑ *very poor*   ❑ *not applicable*

49. How would you rate the quality of the instruction you are receiving here?
❑ *excellent*   ❑ *good*   ❑ *fair*   ❑ *poor*
          ❑ *very poor*   ❑ *not applicable*

50. When you consider the benefits of having a college degree and the costs of earning it, how much would you say that the benefits outweigh the costs, if at all?
❑ *benefits far outweigh the costs*   ❑ *benefits somewhat outweigh the costs*
          ❑ *benefits and costs are equal*
❑ *costs somewhat outweigh the benefits*   ❑ *costs far outweigh the benefits*
          ❑ *not applicable*

51. How likely is it that you will reenroll here next semester?
❑ *very likely*   ❑ *somewhat likely*   ❑ *neutral*   ❑ *somewhat unlikely*
          ❑ *very unlikely*   ❑ *not applicable*

52. How likely is it you will earn a degree from here?
❑ *very likely*   ❑ *somewhat likely*   ❑ *neutral*   ❑ *somewhat unlikely*
          ❑ *very unlikely*   ❑ *not applicable*

53. How much does the cost of courses limit how many you take?
❑ *very much*   ❑ *much*   ❑ *some*   ❑ *little*
          ❑ *very little*   ❑ *not applicable*

Thank-you for your time in filling out this questionnaire. We hope your answers will help us be more successful as educators.

APPENDIX B: FINANCIAL SUPPORT DEMOGRAPHICS

Loans

Government grants and aid (including the GI Bill, Pell Grants, and others)

University provided scholarships

Other grants and scholarships (Community-based aid and professional scholarships)

Choices for each:

$1-29,999; $30,000-47,999; $48,000-74,999; $75,000-109,999, $110,000 or more

APPENDIX C: SURVEY COVER SHEET AND CONSENT FORM

31 December 2013

Education Students
Winter Intensive
Liberty University
Lynchburg, Virginia

Dear Education Student,

As a graduate student in the Department of Education at Liberty University, I am conducting research as part of the requirements for a Doctorate in Education, and I am writing to invite you to participate in my study.

If you choose to participate, you will be asked to complete the attached survey. It should take approximately 10-15 minutes for you to complete the survey. Your participation will be completely anonymous, and no personal, identifying information will be required.

To participate, continue to read through this page and the attachments, complete the survey, and leave it in the envelope as designated by your instructor.

The informed consent document contains additional information about my research, but you do not need to sign and return it.

If you choose to participate you will receive no compensation.

Sincerely,

Bruce D. Mentzer
EdD Candidate
Department of Education
Liberty University

Consent Form
The Relationships of Social, Financial and Academic Supports
to Military Benefit Recipients' Persistence in College
Bruce D. Mentzer
Liberty University
Department of Education

You are invited to be in a research study of possible reasons why you stay in your degree program. You were selected as a possible participant because you have stayed in your degree program and are receiving support to complete your degree. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Bruce Mentzer as a doctoral student at Liberty University in the Department of Education.

Background Information: The purpose of this study is to see if financial, academic, or social support provides motivation for you to stay in your degree program.

Procedures: If you agree to be in this study, I would ask you to complete a short (10-15 minute) survey

Risks and Benefits of being in the Study:

This study has minimal risks, which are no more than you would encounter in everyday life. There is no direct benefit to participation. .

Compensation: You will receive no payment.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records. Your name is not needed..

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions: The researcher conducting this study is Bruce Mentzer. You may ask any questions you have now. If you have questions later, you are encouraged to contact him at Cell: (240) 274-8144 or at bdmentzer@liberty.edu. His faculty advisor is Dr. Ellen Black at elblack@liberty.edu or (434) 592-4104.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at irb@liberty.edu.

IRB Code Numbers: 1761.121913

*

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers.

Please continue with the next page.

APPENDIX D: SURVEY INSTRUCTIONS

To: SOE Intensive Professors
From: Dr. Ellen Lowrie Black and Bruce Mentzer
January 1, 2014

Good morning Liberty Department of Education professors.

Enclosed in the attached envelope is a survey for your class. The School of Education supports this doctoral study.

Please read the following directions to the class:

"You are invited to participate in a study that considers the primary factors that support graduate students in persisting and completing their degree programs. The survey is looking at all students, military and non-military.

Bruce Mentzer, a doctoral candidate under the direction of Dr. Ellen Lowrie Black, is conducting the study.

The survey will take between 10 and 15 minutes to complete. Names and identities are anonymous. Please do not write your name or student ID on the survey.

If you have any questions, you can call the researcher at 240-274-8144.
(Please write number on board.)

Findings will be available on the School of Education website at the conclusion of the study.

When you complete your survey, please place it in the envelope provided.
Thank you for your participation. "

Please have a student seal the envelope and return to the secretary in the Education Department Office.

Thank-you!

APPENDIX E: INSTITUTIONAL REVIEW BOARD (IRB) NOTIFICATION AND

AUTHORIZATION

LIBERTY UNIVERSITY
INSTITUTIONAL REVIEW BOARD

December 19, 2013

Bruce Mentzer
IRB Exemption 1761.121913: The Correlation of Social, Financial, and Academic Supports to
Military Benefit Recipients' Persistence in College

Dear Bruce,

The Liberty University Institutional Review Board has reviewed your application in accordance with the
Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and
finds your study to be exempt from further IRB review.   This means you may begin your research with the
data safeguarding methods mentioned in your approved application, and that no further IRB oversight is
required.

Your study falls under exemption category 46.101 (b)(2), which identifies specific situations in which
human participants research is exempt from the policy set forth in 45 CFR 46:

> (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey
> procedures, interview procedures or observation of public behavior, unless:
> (i) information obtained is recorded in such a manner that human subjects can be identified, directly or
> through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the
> research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the
> subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and that any changes to
your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may
report these changes by submitting a change in protocol form or a new application to the IRB and
referencing the above IRB Exemption number.

If you have any questions about this exemption, or need assistance in determining whether possible
changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

Fernando Garzon, Psy.D.
Professor, IRB Chair
Counseling

(434) 592-4054

LIBERTY
UNIVERSITY.

Liberty University | Training Champions for Christ since 1971
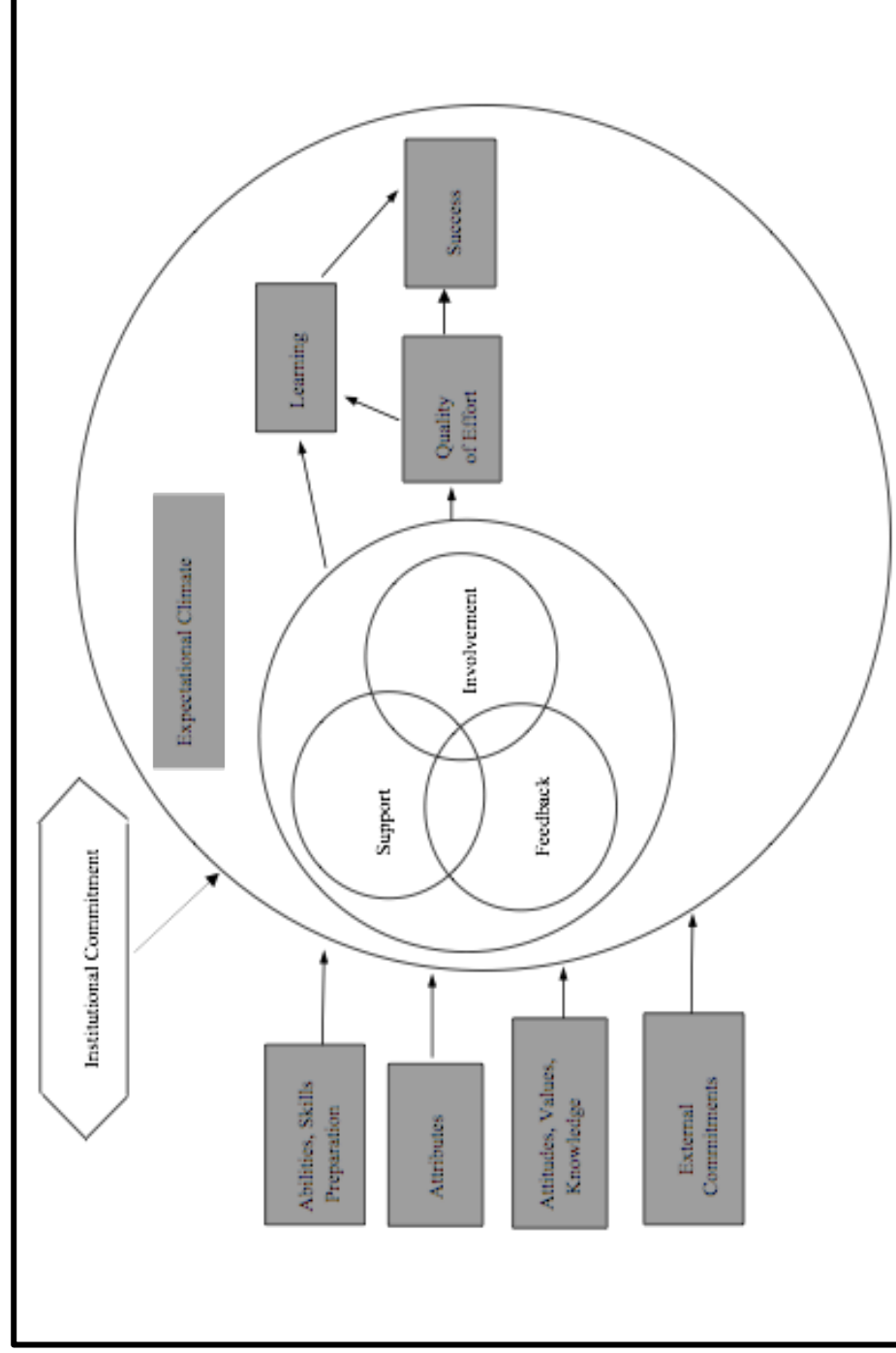
APPENDIX F: FIGURE 1

Figure 1. Structure of a Preliminary Model of Institutional Action. Adapted from "Moving from Theory to Action: Building a Model of Institutional Action for Student Success," by V. Tinto and B. Pusser (2006, p. 9).