



A study of demographic characteristics and postsecondary experiences of Montana Veterans Upward Bound participants
by Luke Louis Petriccione

A dissertation submitted in partial fulfillment of the requirements for the degree of Educational
Doctorate in Adult And Higher Education
Montana State University
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Abstract:

This study addressed the twenty-nine year void of research and information about VUB. It examined selected demographic characteristics of 495 participants of the Montana Veterans Upward Bound Project who participated in the Project and were placed in postsecondary education. Descriptive statistical methods using demographic variables were used to obtain a participant profile and to determine the relationship of these selected variables to graduation or positive persistence. Two focus groups comprising twelve former VUB Billings site students were conducted to gain insight on their postsecondary experiences.

Findings of the study indicated that there were strong relationships between independent variables of age, prior educational levels, the type of institution attended, and the final grade point average to graduation. Prior educational levels and type of institution attended were found to have a relationship to positive persistence.

Experiences of the academically successful and unsuccessful participants revealed that academic integration variables were least important to their academic success or failure. Academically successful students experienced greater and more positive interactions on the organizational and social levels. They were better able to interact with younger students, the faculty, and the institution as a whole. They attributed greater maturity, acceptance of rules, and the diversity of their military experiences as positive factors to their academic success. Off campus demands were similar for both groups, however successful students were better able to build support networks, to establish stronger commitment to their educational goals, and to view the additional demands of non-traditional students as temporary and worthwhile. Health problems were revealed as a unique variable among those who left college without obtaining a degree.

Conclusions of the study indicated that the Montana VUB met or exceeded its federal mandates to serve Native American, female and low-income veterans, and that the majority of participants maintained satisfactory academic standards. Focus group participants indicated a need to better integrate into their institution's organizational and social environments. Finally, there were implications for changes in veterans' benefits and policy, changes in federal financial aid policies, and the urgent need for additional research of VUB tribal college veterans using veterans' benefits.

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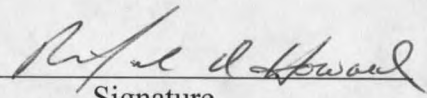
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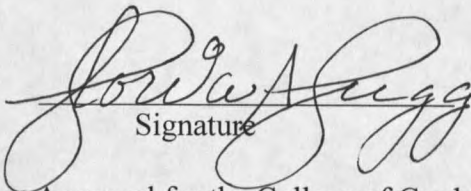
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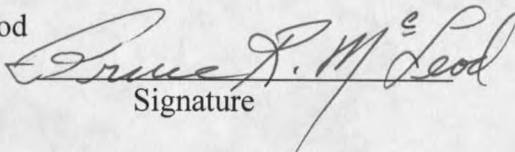
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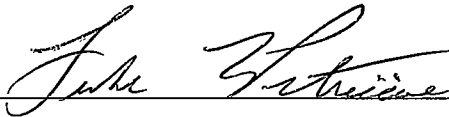

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IN DEDICATION TO:

My Mother, Leonetta Campochiaro Petriccione

And

Captain Robert Hitte III, USMC

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A journey this long is not a single effort, but is the result of support and help by many who have been down this trail with me. I would like to acknowledge the many who have contributed to this paper. First and foremost, to the heavenly Father who has guided me and been there during the my many times of need- this fulfills that promise made many years ago. To my grandparents who believed in the promise of America; to my parents who taught me the values of respect, hard work, and the love of life and learning; to my sister, Sylvia, who teaches the most needy of children with her heart; to my loving wife, Donna, and my children: Zachary, Gwendolyn, Randall, Catherine, Leonetta, and Joseph, for all the joy and reasons you gave me to persist. To my brother Marines past, present, future who acknowledged, undertook and stand ready to make those sacrifices from which we all benefit; To my committee members Drs' Ken Borland, John Borkowski, Marty Frick, Van Shelhammer and Nate St. Pierre; my past chairs Gary Conti and Bill Liesoff. I would especially like to acknowledge two exceptional mentors who have contributed both to my academic and professional development—my chair, Dr. Richard Howard, and my former supervisor, Dr. Linwood Wall. To my Billing's cohort group—Florence Garcia, Cindy Dell and Jay Young, to Melissa Johnson for the help on statistics and Marsha Ferraguti for the typing; to my professional colleagues Steve Gallant, Cai Williams, Glen Morris, John Donaldson, Robert Hernandez, and Oscar Valeriano Jr, Ron Atwell; to my office staff, both at Humboldt and Northern. Finally, to all the Indian people and communities who continue to honor veterans and the warrior spirit, and to all the veterans who have and continue to serve our country. Semper Fi!

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Abstract

This study addressed the twenty-nine year void of research and information about VUB. It examined selected demographic characteristics of 495 participants of the Montana Veterans Upward Bound Project who participated in the Project and were placed in postsecondary education. Descriptive statistical methods using demographic variables were used to obtain a participant profile and to determine the relationship of these selected variables to graduation or positive persistence. Two focus groups comprising twelve former VUB Billings site students were conducted to gain insight on their postsecondary experiences.

Findings of the study indicated that there were strong relationships between independent variables of age, prior educational levels, the type of institution attended, and the final grade point average to graduation. Prior educational levels and type of institution attended were found to have a relationship to positive persistence. Experiences of the academically successful and unsuccessful participants revealed that academic integration variables were least important to their academic success or failure. Academically successful students experienced greater and more positive interactions on the organizational and social levels. They were better able to interact with younger students, the faculty, and the institution as a whole. They attributed greater maturity, acceptance of rules, and the diversity of their military experiences as positive factors to their academic success. Off campus demands were similar for both groups, however successful students were better able to build support networks, to establish stronger commitment to their educational goals, and to view the additional demands of non-traditional students as temporary and worthwhile. Health problems were revealed as a unique variable among those who left college without obtaining a degree.

Conclusions of the study indicated that the Montana VUB met or exceeded its federal mandates to serve Native American, female and low-income veterans, and that the majority of participants maintained satisfactory academic standards. Focus group participants indicated a need to better integrate into their institution's organizational and social environments. Finally, there were implications for changes in veterans' benefits and policy, changes in federal financial aid policies, and the urgent need for additional research of VUB tribal college veterans using veterans' benefits.

CHAPTER 1

INTRODUCTION TO THE STUDY

U.S. military veterans have had an enormous impact on the development of adult and higher education in America (Anderson & Kime, 1996). This was especially true of those veterans who entered college after World War II (Rose, 1994; Willenz, 1994; Wilson, 1994; Greenberg, 1994; Olson, 1994; Kerr, 1994; Bennett, 1994). It is estimated that 7.8 million W.W. II veterans received training under the GI Bill. Over two million of these veterans enrolled at colleges and universities at a cost of 14.5 billion dollars (Montgomery, 1994).

To a much lesser degree, veterans are still an important aspect in American Higher Education. Jensen (1999) reported that the GI Bill is still the single largest program of federal financial aid with over 500,000 veterans annually receiving approximately one billion dollars in benefits. Besides the large federal investment in the GI Bill, another federal initiative begun in 1972 was the Veterans Upward Bound program (Westby, 1988). The program provided for the outreach, preparation and placement of first-generation, low-income veterans into postsecondary education and training. The Veterans Upward Bound Project (VUB), a Department of Education TRIO program, provides these services to over 6,000 veterans annually at a cost exceeding 12 million dollars (Council for Opportunity, 1998).

Despite the lowest active military force since 1950 (U.S. Department of Defense Manpower Report, 1999), the federal investment in veteran benefits and services aimed at higher education is increasing. In 1999 the number of VUB projects increased

nationwide from 36 to 51 (Council for Opportunity in Education, 1998), and numerous pieces of federal legislation (HR 1071, HR 1182, S 1041) sought to increase the GI Bill, and double the current expenditure for veteran educational benefits.

These federal initiatives to increase educational support for veterans are occurring at a time when other federal initiatives are calling for greater accountability and assessment of outcomes by federal agencies (Government Performance and Results Act [GPRA] 1993). Veteran benefits and services are no longer viewed as an entitlement of military service, but as an approbation of Congress based upon projected outcomes. The pervasive question pertaining to both the GI Bill and the Veterans Upward Bound Project is then: To what extent are veterans, who are receiving these benefits and services, academically successful in completing their educational objective?

The answer to this question is elusive, since the study and research of veterans' academic success is sporadic, with most of the research occurring after major military conflicts (Fine, 1947, 1949; Frederickson, Norman, Schrader, 1951; Clements, 1973; Burns, 1974; Fligstein, 1976; Villemez, Wayne, Kasarda, 1976; Henderson, 1977; O'Neill, 1977; Fernandez, 1980; La Barre, 1985; Booze, Allen, Hamilton, 1989; Cohen, Jere, Segal, David, Temme, 1992; Goodrich, 1998; Atwell, 1999). There are a number of delimitations of these studies which restrict their use in examining academic success of veteran students including: The focus on the assessment of the GI Bill utilization rate and not the degree attainment among GI Bill users; the use of small samples of veterans over a short period of time at specific educational institutions; the sole emphasis on comparing veteran student demographics with non-veteran student demographics; and the

examination of occupational attainment of veterans who have only used the GI Bill. The only large-scale investigation of veterans as college students was conducted by Frederickson, Norman, and Schrade (1951), whose study surveyed 10, 000 veterans at 16 different colleges.

Beyond these noted delimitations of past research, a more urgent need presents itself. Veteran Upward Bound Projects, despite twenty-nine years of federal funding, have never been a subject for study. Increasing federal accountability, dramatic change in the demographics of the current all volunteer service (Anderson, Kime, 1996), and the lack of knowledge pertaining to the postsecondary, educational experiences of VUB participants necessitates an initial study describing participant characteristics, and an understanding of their post VUB experiences, as they relate to academic success or failure. The federal mandate for all Upward Bound projects is to “generate the skills and motivation to complete a program of postsecondary education and to enter and succeed in a program of postsecondary education” (34 CFR Part 645.1). The lack of research regarding the success of VUB programs makes it difficult to assess how well projects are meeting this federal mandate.

Statement of the Problem

The problem addressed in this study was the lack of information describing selected characteristics of Montana’s VUB participants who have entered postsecondary education, and the lack of understanding about those experiences, as they related to their academic success or failure.

The lack of studies related to VUB participants, and the 1999 expansion of funds to establish more Veteran Upward Bound projects to address the number of academically unprepared veterans being discharged from the current military increases the need for assessing outcomes for improving project performance to justify and continue federal investment in the projects. The primary outcome objective for Veterans Upward Bound has changed from the number of veterans placed into postsecondary education to the number of veterans graduating and persisting in postsecondary education (Code of Federal Regulations, 1995). The inability to describe the characteristics of participants and their post VUB experience in postsecondary education severely limits the Montana's VUB Director's knowledge for increasing project performance that could result in greater numbers of academically successful participants. This lack of research pertains to all currently funded VUB projects, and is of particular concern to the Montana State University Northern's Veterans Upward Bound Project as it seeks to improve the academic success of its participants.

The Purpose of the Study

The stated purpose of this descriptive study was to examine selected demographic characteristics and postsecondary experiences of Montana's VUB participants to gain an understanding of the factors that contributed to their academic success or failure. Specifically, the study sought to (i) to describe VUB participants based on selected demographic characteristics, (ii) to describe the relationship between these characteristics and academic success (graduation and positive persistence), (iii) to illustrate the postsecondary experiences of Billings area participants, as it too related to their academic

success or failure, and (iv) to obtain information for improving Project services and practices

Academic success is defined as any Montana VUB participant who had graduated with a college degree/certificate, or any Project participant who was enrolled with a grade point average of at least a 2.0 GPA as of June 1998. Academic failure was defined as any Project participant who was classified as dropout, stopout or maintaining less than a 2.0 GPA, as of June 1998.

Theoretical Framework

The researcher found no existing studies that describe VUB participants or factors related to their academic success or failure. Studies related to veterans as students are predominately quantitative in nature, and seek to identify differences in demographic characteristics between veteran and non-veteran college students (Chapman, 1983; Henderson, 1977; Weiss, 1976; Burns, 1974; Frederickson, Norman, Schrader, 1951; Fine, 1947, 1949).

During the past twenty years, there has been an abundance of research regarding persistence as a measure of academic success among various segments of college students (Tinto, 1975, 1993; Richardson & Skinner, 1993; Murguia, Padilla & Pavel, 1991; Williamson & Creamer, 1998; Pascarella & Terenzini, 1991). There remains little research, however, outside of the theoretical models presented by Bean (1985, 1990), and Metzner and Bean (1987) that postulates persistence among non-traditional students. The preponderance of veterans are considered nontraditional by having elected to enter the military prior to entering college and later enrolling as older nontraditional students.

These earlier models (Bean, 1985; Metzner & Bean, 1987) provided the theoretical framework for examining certain demographic background variables and their relationship to academic success. As stated earlier, the study of veteran student demographics has been the primary focus of the majority of research related to veterans in postsecondary education (Atwell, 1999, Chapman, 1983; Henderson, 1977; Weiss, 1976; Burns, 1974; Frederickson, Norman, Schrader, 1951; Fine, 1947, 1949). It is evident that certain demographic variables were important enough for inclusion in Bean's earlier studies focusing on non-traditional students. In addition, the use and importance of demographic characteristic along with other data continues to serve as a basis for current research on accountability and assessment of higher education outcomes (Ewell, 1991).

Bean's (1990) Longitudinal Model of the Types of Factors that Affect Retention Decisions represents a synthesis of earlier models and was appropriate for gaining an understanding of participants' postsecondary experiences. This latter model does have several limitations that prevented it from being used as a complete framework for the study. The 1990 model is based on traditional and non-traditional student populations, and the specific demographic background variables have been generalized to emphasis high school preparation rather than personal demographic variables. The advantages of this construct for the qualitative inquiry of this study, however, outweigh its limitations. As noted by Dell (2000) Bean's model "may be useful to understanding the American Indian experience in higher education" (p. 9). This was an important consideration since forty-six percent (46%) of the subjects in this study were American Indians. Dell's

rationale was based on numerous studies that suggested environmental pull factors, especially those related to family, were important factors in American Indian persistence.

The model presented four stages and variables leading to a student's decision to leave or remain at college. The four sets of interaction variables (organizational, academic, social, environmental pull) provided a structure for understanding the participants' postsecondary educational experiences. The theoretical models of Bean and Metzner are presented as figures in Chapter 2. Also contained in Chapter 2 is a review of the study's methodology that supports the selection and use of focus groups, as a qualitative method, for gaining information to illustrate participants' postsecondary experiences.

Research Questions

1. Based upon selected background and Project demographic characteristics, how are the Project participants, who entered postsecondary education best described?
2. What is the relationship of selected demographic variables of Montana's Veteran Upward participants who entered postsecondary education to academic success (degree obtainment and non-graduate positive persistence—retention)?
3. What are the important postsecondary experiences that contributed to the academic success or failure as illustrated by the Billings program participants?
4. What are the implications of these experiences for improving Project practices?

Significance of the Study

This descriptive study serves as an initial investigation of the Montana VUB Project. It described the characteristics of participants who entered postsecondary education, and gained an understanding of their postsecondary experiences that contributed to their academic success or failure in pursuing their educational objective. Gaining a demographic profile of participants, examining these characteristics, and understanding the postsecondary experiences of participants provided a foundation for evaluating the Montana Veterans Upward Project. The importance of “academic success” (retention, graduation) to program evaluation and worth is noted by Sara Steele (1970): “Program evaluation is the process of judging the worth or value of a program. This judgment is formed by comparing evidence as to what the program is with criteria as to what the program should be” (p.8). The descriptive design and specificity to the Montana Veterans Upward Bound Project prohibits generalization of results. Tangentially, however, the information gathered from this study may serve as a point to begin the discussion of outcome standards among VUB projects and provide a description of participants’ as a means of comparing and contrasting participant characteristics among the various VUB projects.

Definition of Terms

Veterans Upward Bound (VUB): A federally funded project of the US Department of Education Trio programs designed to provide outreach, prepare and place

low-income, first generation college students into post-secondary education and training (34 CFR Part 645.1).

Veteran: Any member of the US armed services who has served at least 181 days of active duty, and who is discharged under conditions other than dishonorable, or who is discharged under a medical condition (34 CFR Part 645.6).

Veteran Upward Bound Participant: Any veteran as defined above who meets the annual low income criteria set forth by the US Department of Education and whose parents have not completed a four-year degree (first generation college student). Two-thirds of project participants must be both low income and first generation college students and one-third of enrolled participants can be either (34 CFR Part 645.6).

VUB Eligibility Criteria: At the time of application veterans are determined to be eligible if they meet one of the following criteria: (i) Meets both low income and a first generation college student; (ii) Meets low income criteria only, (iii) Meets first generation criteria only (34 CFR Part 645.3). Income is taxable income earned one year prior to enrolling in the VUB project.

American Indian: Includes any person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition (USDOE, National Center for Educational Statistics, 1995, p. 499)

GI Bill: An educational entitlement for military service to include benefits under chapters 30, 32, 31, and 34/30 (Title 38 of the U.S. Veterans Code).

Academic Success: Those participants who have enrolled in the Montana Veterans Upward Bound Project from Spring 1992 semester through the 1998 Spring semester and who were placed in college by the Project, and (i.) who have graduated or (ii.) have demonstrated positive persistence by their enrollment and achievement of a 2.0 or greater grade point average.

Academic Failure: Those participants who have enrolled in the Montana Veterans Upward Bound Project from Spring 1992 semester through the 1998 Spring semester and who were (i.) no longer attending or (ii.) were attending, but maintaining less than a 2.0 GPA. For Project tracking purposes, this group is further defined as dropouts, which pertains to those participants who have not taken any courses within a two-year period and stopout, which pertains to those participants who were not currently enrolled at the time of this study, but who had taken courses within a two-year period.

Assumptions, Limitations & Delimitations of the Study

It was assumed that the demographic data analyzed in the study was accurate and the information provided by participants on Project forms is true. While much of this data was supported by requested documentation such as discharge papers, prior year income levels, high school and college transcripts, there were no requirements for supporting ethnic background, marital status and in some cases prior educational level. It was assumed that submitted documents were true and verifiable and answers provided were honest. Likewise, it is assumed that responses provided by focus group participants were honest. This was referred to by Lincoln & Guba (1985) as the "truth value." They

contended that determination of this "isomorphism is in principle impossible." Methods to provide greater credibility to the focus group findings are described in Chapter 3.

There were several external limitations to the study. A limitation innate to the study may have been inaccurate or incomplete data contained in the archival database files. Attempts were made to review each participant file with twenty-two participant files being eliminated from the study because of incomplete or erroneous data. Another noted limitation included the independent variable for eligibility and receipt of the GI Benefits. While participants are eligible and receive the GI Bill during their VUB enrollment, and the semester following their VUB participation, the Project did not track the continuation of benefits beyond their first semester of enrollment assuming they continued receiving their benefits while enrolled. Lastly, students who may have been categorized as stopped out or dropped out during June 1998 may have resumed their education or raised their GPA, and by Project definition would be reclassified as academically successful.

There were several delimitations pertaining to both the quantitative and qualitative methodologies use in this study. While demographic data was collected on the total population of Montana's VUB participants for descriptive purposes, delimitations were made concerning the selection of demographic variables for this study. Only those variables that corresponded or related to the background variables identified in the Bean and Metzner conceptual models (1985, 1987) were selected, as well as, data that were most likely to be uniformly contained in the majority of student files. The primary delimitation established in the qualitative study was the exclusion of tribal

college participants who did not reside in or near Billings Montana. Project veterans who participated in the Billing VUB site, and those veterans who participated in the VUB sites at Little Big Horn College and Dull Knife Memorial College were invited to attend the focus group interviews. VUB participants from the five other more remote VUB tribal sites (Fort Peck, Fort Belknap, Stone Child, Salish Kootenai and Blackfeet) were not invited because of their remoteness from Billings. An additional delimitation was imposed by conducting only two focus group interviews as opposed to conducting interviews or groups of "prolonged engagement" (Lincoln & Guba, 1985). These groups were intended to "illustrate" the outcomes of results obtained from the descriptive study, and were not intended to reach "theoretical saturation" (Strass and Corbin, 1990) to support or establish theory or conceptual models This delimitation resulting from only two group interviews was offset by the researcher's own twenty-nine year experience with VUB participants, the use of a pre-group questionnaire for triangulation, and the use of a collaborative process for obtaining and analyzing information.

Format of Study

Chapter 2 contains an introduction to the historical, political, social, and economic events that led to the creation of the GI Bill, and other services to veterans in higher education. This background provides the reader with the context for understanding the current issues and events confronting benefit programs for veterans. A brief overview of adult participation models provides insight on the development of current theoretical models related to student persistence and attrition. The review of methodology provides background information used to develop the research design and carry out the research

methodology. Finally, specific information pertaining to Veterans Upward Bound, the Montana Veterans Upward Bound, Native American veterans, and veterans' related research serves as a basis for getting better acquainted with the problem and purpose of this study.

Chapter 3 explains the quantitative and qualitative design of the study, with an emphasis on methodology and data analysis.

Chapter 4 presents the results and findings of both the statistical analysis and qualitative information obtained from the focus group discussions.

Finally, Chapter 5 provides discussion of the results, offers conclusions, and provides recommendations for further research or additional investigation.

Chapter Summary

There is a twenty-nine year void of research related to the Veterans Upward Bound. The enrollment of veterans in post secondary education has made an important contribution to the democratization of higher education, and provided the impetus for the development of theories and practices related to adult learning. However, the decreasing numbers of veterans, and the increase for accountability of the federal investment in higher education and benefits programs requires a better understanding of participants and their experiences in relationship to successful outcomes.

Conceptual Model of Nontraditional Undergraduate Student Retention and attrition (1985,1987) provide the basis for studying the background variables related to Project participant success. Bean's (1990) Longitudinal Model of the Type of Factors that Affect Retention Decisions served as a basis for understanding their postsecondary

experiences. These models provided the framework for the quantitative and qualitative investigation of academic success and failure of the Montana Veterans Upward Bound participants. The information and understanding gained from conducting this study can lead to improving VUB program services and practices resulting in greater academic success of VUB participants.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

Despite the enormous impact that veterans and veteran's legislation have had on higher and adult education, there still remains little supporting evidence that the GI Bill and other federally funded programs are significant to degree attainment, or afford successful transition to the civilian sector. The purpose of this chapter is to provide a review of the literature and research focusing on veterans in higher education.

The first section of the review will provide a historical context of the GI Bill and legislation affecting veterans' educational benefits, including the influences on adult higher education. The second section provides for an understanding of the contemporary issues--including the lack of participation in veteran benefit programs, declining military enlistments, and the lack of data related to academic success among veterans.

Since the purpose of this research is to investigate degree attainment and positive persistence among a segment of veterans, the third and fourth parts of the literature review concerns itself with presenting a broad overview of adult learning participation models and student retention models. The final three sections specifically focus on (i) veteran related research with an emphasis on the veteran student, (ii) a review of the Veterans' Upward Bound Project, from which the sample population will be derived, and (iii) an overview of American Indian veterans, who comprise a large portion of

participants in the proposed study, and finally a (iv.) review of the research methodologies used for carrying out this study.

Criteria for the Inclusion and Exclusion of Literature Themes

A number of criteria guided the themes that were to be included or excluded from the study's literature review. The nature of population studied and the educational setting for the study, dictated a focus on literature that concerned itself with veterans in higher education. The purpose of the study provided a narrower focus since it concerned itself with participants of a particular federal education program (The Montana Veterans Upward Bound Project). Both veteran students and the Veterans Upward Bound (VUB) program have limited recognition in the higher education milieu; a specific effort to include the historic context of veteran's benefits and VUB services was especially addressed. Other themes and the rationale for their inclusion in this chapter are presented followed by the literature themes.

As previously noted in Chapter 1, despite the great contributions made to higher education by the large influx of W.W. II veterans, very little is known about veterans as students and their postsecondary experiences. The majority of literature pertaining to veterans in higher education is presented in a historical context. This literature review reflects this orientation by presenting themes related to the political, social, and economic origins of the GI Bill, and the impact of the GI Bill on higher education. The GI Bill serves as both the focal point for historical and contemporary issues related to the benefits and services of veterans attending college. A review of the current issues provides an understanding for the urgent need to review veteran entitlement benefits and

services in light of increased calls for federal accountability and assessment of outcomes.

A review of six major theories related to adult participation is included to provide a historical perspective for understanding the origins and context of the development of more current theories related to student retention and attrition. These theories are particularly useful in understanding the relationship of demographic variables of interest to this study, as they relate to academic success. A specific focus is placed on the theoretical constructs of Bean and Metzner (1985,1987) as it pertains to non-traditional student retention in higher education. The majority of veterans are classified as non-traditional by virtue of their military service. Overall research and examination of veteran students is limited, all identified studies were presented with an emphasis on those related to veteran student demographics. The Veterans Upward Bound is introduced, and the political and social educational aspects are presented, since the Project participants are the focus of this study. Information about Native American veterans is presented because these veterans comprised a large portion of the participants in this study, and because they are often overlooked when discussing minority contributions to the U.S. military. Finally, a review of the methodologies used in the research is presented as an introduction to Chapter 3.

Literature related to veterans' war experiences, health care issues, delivery of non-educational benefits and services by the Veterans Administration or veterans' employment and benefits were excluded from this review, as they were outside the historical or educational focus of the study.

Historical Development of the GI Bill

The GI Bill of Rights stands out as perhaps the single most important piece of legislation affecting adult higher education. Clark Kerr (1994) has defined it as "one of three great federal policy initiatives" of the 20th century. The GI Bill, the Morrill Land Grant Act, and the reliance on the university for basic and applied research are visible reminders of the federal influences on American Higher Education. The GI Bill, short for the Servicemen's Readjustment Act of 1944, however, had the most visible and most immediate societal impact (Bennett, 1994). It transformed the historic role of higher education as a place for instructing the nation's elite, into institutions preparing the veterans of W.W. II for the emerging needs of science, industry and trades. The GI Bill was the impetus for opening the gates of higher education to America's lower and middle classes, the majority of whom were first generation college students (Greenberg, 1994). The GI Bill was only one of six titles of the Servicemen's Readjustment Act. The overriding purpose of the act was not democratization of education, but a plan to confront possible widespread societal revolt and economic depression (Olson, 1974).

Besides veteran student enrollment swelling from 1.5 million in 1940 to 2.7 million in 1950, Kerr (1994) noted more enduring changes in the infrastructure of universities and colleges caused by the large influx of veterans. Veterans of W.W. II represented the beginning of mass enrollment of non-traditional students to the college campus. Veterans accustomed to services available in the military began asking for housing, meals, health and counseling services. The federal government responded by making funds available for new facilities and staffing. The overwhelming number of

applications from veterans also introduced standardized admissions testing. By the time the World War II GI Bill ended, 7.8 million veterans had been subsidized for education and training, creating the world's largest middle class (Bennett, 1994). Peter Drucker's book *The Post Capitalist Society* (1993), further defined the GI Bill: "future historians may consider it the most important event of the 20th century" (p. 3).

The social impacts of the act were also far reaching. Over one-half of these new college students were the first of their families to attend college. A first generation student, while not a familiar term at the time, was well established on the American campus. The belief that higher education was right for all its citizens reinforced the notion of America as a melting pot. Michael Bennett (1994) sums up the social transformation as follows:

The GI Bill turned Irish-Americans, Italian-Americans, and Polish-Americans, as well as other ethnic Americans--all of whom were overwhelmingly poor and working class--into a single people more accurately described by other hyphenated words: college-educated, middle-class, home-owners (p. 10).

First-generation students would later become another prominent hyphenated word on the campuses of academia and within the U.S. Department of Education. The postsecondary education phenomenon was not limited, however to white America. In 1940, the State of Virginia with a 25% black population had only one public higher education institute for blacks--Virginia State University--compared to nine public institutions admitting whites only (Wilson, 1994). Unrealized at the time, the GI Bill was to be a major influence in challenging the segregation laws of the South. Politically, Wilson cited three legislative measures that stirred the halls of congress. First, there was the battle to decide who would control the funds for educating veterans. The American

Council on Education (ACE) and prominent educators such as Robert Hutchins, President at the University of Chicago, and James Conant of Harvard argued that the states' college presidents should receive funds directly for educating veterans, rather than direct payments to veterans. Their arguments and fears were based upon the concern for and prediction that academic standards would be eroded and the purpose of the university would be changed. President Hutchins (1944) voiced his objection, saying, "The GI Bill is unworkable. The person who drafted these absurd provisions did not think of them as educational provisions, but as a method of keeping veterans off the bread lines" (pp. 20-22).

Congressman John Rankin, a known racist from Mississippi, argued for direct payment to veterans to attend any institution of their choosing. This decision, unrealized by Rankin, created a foundation for affirmative action by removing the states as the approving agencies for educational institutions, which at least in the South, would have eliminated black institutions from qualifying. Wilson noted that this decision resulted in enrollment in black colleges increasing from 1.08% to 3.6% in 1950 (p. 36). This noted increase of black veterans was at black post-secondary institutions only, and did not represent the vast number of blacks who enrolled in white institutions in the North and West.

The second political issue, while not an educational concern, provided a subsidy of \$20 per week for 52 weeks for unemployed veterans. This title of the act provided for what was to be later enacted as unemployment benefits for all workers. On this side of the issue, the sides reversed themselves, and Congressman Rankin lead the opposition

fearing that passage would break the tradition of dual wages for blacks and whites in the South. Despite his opposition to the amendment, it was passed and the concept of equal rights was further strengthened (Wilson, 1994).

Lastly, as the federal influence became stronger, institutions looked towards Washington to access funds for expanding facilities and renovations brought forth with increasing student enrollments. Black institutions, which were historically under-funded, experienced a greater percentage of veteran enrollments proportionally than white institutions. In 1947, veterans comprised 29.4% of the enrollments at white institutions and 50% of the enrollments at black institutions (Akins, 1948). The Lanham Act of 1946 provided an advantage to black institutions that experienced increasing enrollments caused by veterans. The Act provided funding of 33.4 square feet per veterans at "Negro Colleges" compared to 17.4 square per veteran at white institutions. Despite the funding, black colleges were still forced to turn away 20,000 veterans, as noted by Wilson (p. 35).

In summary, the historical events of the GI Bill have three areas of relevance to this research. These events introduced college to a vast number of low-income first generation college students; they produced the notion of equalitarian and pluralistic education with the entrance of greater numbers of minority students; and they provided for the origins of federal policy and influence, not only in the affairs of veterans, but in the affairs of post-secondary institutions.

Current Issues Related to the GI Bill

The GI Bill was not a one time historical event. It continued to evolve as a legislated benefit to attract citizens for military service; to demonstrate and reward

service to the nation, and to provide a mechanism for veterans to gain economic parity with their non-veteran peers (Congressional Commission on Service members and Veterans Transition Assistance Report, 1999).

After W.W. II, research investigating how well the GI Bill had accomplished these goals attracted limited and sporadic study. O'Neill (1977) conducted a longitudinal, quantitative study of post-Korean veterans (1969-74). He found that GI Bill users realized a 10% increase in annual earnings over non-users. Angrist (1993) examined the effects of the GI Bill on veterans of the Vietnam Era, and the first year of the All-Volunteer Forces (AVF). Using data from the 1987 Department of Veterans Affairs National Survey of Veterans, he analyzed usage and characteristics of veterans before and after their entry into the military. One of his findings was that a greater number of Vietnam veterans (58%) used their GI Bill than early members of the AVF (46%). Further findings of Angrist revealed: 1.) That 14.4% of the population sampled reported that their level of schooling did not differ from their pre-military level; 2.) That Army recruits were less educated than Air Force and Navy veterans; 3.) That among benefit users, 77% went to college or graduate school; 4.) That the relationship among schooling, grades, and earnings differed little by race, period of service, or branch of service; 5.) that among college participants, a gain of 1.4 years of increased schooling was obtained compared to no increases in educational levels of participants entering other forms of training. Angrist concluded that the use of education benefits among veterans in his study was associated with post-service increment of approximately 1.4 years of schooling. This had a short-term effect of raising annual earnings by six percent;

however, it appears that the benefits of military service were not offset by educational compensation. He noted further that white Vietnam veterans appear to suffer a 15% earning loss, ten years after their discharge as compared to their civilian counterparts. Both the Angrist's and O'Neill's studies were limited by not exploring graduates among benefits users. In addition, Angrist restricted his study to all males and veterans who had completed at least nine years of schooling before enlistment. Despite an attainment of only 1.4 years of post-service schooling among Angrist's sample he concluded, "Over a 30 year working life, this premium (GI Bill) has a discounted 1986 dollar value of \$17,717. This simple calculation suggests that veterans benefits are not socially wasteful" (p. 651). Angrist was careful to control for prior educational levels and the difference in enlisted and officer ranks, and while his conclusion that the GI Bill was a socially valuable benefit, it does raise concerns about degree attainment in light of his findings that only 1.4 years of schooling was obtained among his sample. It also neglected to mention that Vietnam veterans had the highest utilization of the GI Bill (66%) compared to W.W. II veterans (50.5%) and Korean Era veterans (43%) (Montgomery, 1994).

Cohen, Segal, and Temme (1992) examined occupational attainment of Vietnam veterans as a measurement of how successful the GI Bill was among these veterans. Their findings supported aspects of Angrist's work, as they too found that occupations, and wages of sampled Vietnam veterans were lower in comparison to their non-veteran peers. In contrast to the socioeconomic gains made by W.W. II and Post Korean veterans, Mason (1970), Fligsten (1976), Rothbart, Sloane, Joyce (1981) and

Card (1983) reported that Vietnam-era veterans were lower than non-veterans in occupational prestige and wages. Rothbart, et al (1981) proposed three hypotheses for this lower achievement: 1.) Disruption of goals and lives caused by military services; 2.) Employer discrimination related to Vietnam service, and 3.) Lower education levels of sampled veterans. They concluded, "A major effect of Vietnam service appears to be the depression of the post-secondary education and through that mechanism, a reduction of the veteran's occupational achievement." (p. 259). A follow-up study of Vietnam era veterans by Marini, Shin, Raymond (1989) also concluded that: 1.) The effects of military service on occupations were indirect, and 2.) The discrimination of Vietnam veterans may have been a factor; but it was not significant to a veteran's occupational attainment. Cohen, et al (1992), Card (1983), Villemez, and Kasarda (1976) along with Angrist all concluded that education was directly related to veterans' occupational attainment.

An overlooked confound that was not considered by the researchers examining Vietnam veterans was the fact that there was an active and highly popular antiwar sentiment present on most campuses at the time. This campus climate could have very well been significant to the "depression of post-secondary education attainment of Vietnam veterans" as noted in the research. Cohen, Segal, and Timme (1992) identified another factor--"the insufficiencies of government educational benefits policies" (p. 148), which they concluded lead to the lack of education necessary to compete occupationally. The various merits of the GI Bill as reflected in the research of the above-cited studies would naturally lead to discussion of policy in further reviewing the social and economic impacts of the GI Bill.

The issue of policy to related benefit usage and benefit outcomes is increasingly getting attention. Steve Kime (1993), Director of the Service members Opportunity Colleges (SOC) posits the problem:

The transitioning service member is a very special adult student. He or she has been subject to discipline, been given valuable training, and often has received first-class military schooling that has been evaluated by the American Council on Education as worthy of academic credit. Many have taken college courses while on active duty through such testing instruments as the College Board's College Level Examination Program (CLEP), and more could do so. Most qualify for Montgomery GI Bill funds. Given all these incentives, it is reasonable to wonder why the educational aspect of the military draw down continues to be a problem. The facts are disturbing; of 300,000 new veterans who left active duty with the requisite length of service, type of separation, and character of discharge that allow full entitlement to GI Bill education benefits slightly over sixty percent (60.1%) have yet to take the first college course (p. 20).

Kime (1993) identifies failures in current policy and the current delivery system of benefits as the chief cause contributing to the decline in usage of benefits and degree obtainment. He makes five bold recommendations seeking improvement: 1) The centralization of veteran programs, presumably under the cabinet level Department of Veterans Affairs, which would position it to serve as a strong policy advocate; 2) The development of a strong national policy to address, coordinate, and adjust current and new veteran programs; 3.) The involvement of higher education as a vital partner in the national policy on veteran's education. In fact, Kime points out that there already exists such a framework through the 1,000 colleges and universities participating in the Servicemembers Opportunity Colleges (SOC program); 4.) The development of a formal structure to meet the need for exchanging information among veterans, colleges, and communities. Ideally, this information exchange would occur while veterans were still on active duty and beginning the transition from military to civilian life. Again, he notes,

"It would require a serious national-level effort to integrate all the pieces into a coherent program." (p. 23). He reminds us that veterans' adult education is only one aspect of a "triad" needed for successfully transitioning a veteran into society, and 5.) There must be equal recognition for policy to address military education and civilian employment aspects as well.

In 1995, the U.S. Department of Veteran Affairs published the 1992 National Survey of Veterans (SOV). It provided further evidence to the declining numbers of veterans using their educational benefits. It indicated that the current GI Bill has the least number of participants at a time when education continues to play a vital role in the transformation of our nation as a technological and global society. Robert Reich, past Secretary of the Department of Labor, in his book *The Work of Nations* (1992) emphasized the importance of education especially in a technological society:

In practice, of course, the task of transforming a majority of the American workforce into symbolic analysts would be daunting...so other responses are needed. One is to increase the number of Americans who can apply analysis to production and in service areas. This means that a far greater number of Americans would need solid grounding in mathematics, basic science and communication skills. So once again, comfortably integrating the American workforce into the new world economy turns out to rest heavily on education and training, as well as nutrition and health care, sufficient to allow job training to occur (p. 249).

The fact that fewer veterans are using the GI Bill is not only problematic for the successful transition of veterans into the civilian labor force, but presents conflicting reasons for the decline. The Department of Veterans Affairs' 1992 SOV study indicated that the awareness of educational benefits had the greatest recognition among the various VA benefit programs. In all age groups, 95% of the veterans interviewed reported that

they were aware of their educational benefits. This survey sampled 17,472 veterans of which 11,645 (66.6%) completed the interview survey. Sampling errors are noted in that the not all questions on the survey were asked of all veterans, and all surveyed veterans did not answered all questions, hence the sample size varied from one question to another. Other non-sampling errors were also noted and included under counting of the total population, under-counting of specific groups of veterans (those without phones/poorer veterans), and recall or unwillingness to respond to questions and interpretation of questions. Since the SOV serves as a primary basis for veteran's research, other limitations of the study should be noted and included telephone interviews versus in-person interviews, various time of year for survey administration, interview experience of interviewers and estimation procedures. A national survey conducted by Chris Goodrich (1998) for the Department of Veterans Affairs reached a far different conclusion regarding educational benefit awareness. In a national survey of 600 randomly sampled veterans who were entitled to the Montgomery GI Bill, Goodrich received the highest number of responses to the statement "I do not know enough about the Montgomery GI bill benefits to use them" (p. 28).

The declining rate of participation in veteran educational benefits has raised a national concern coinciding with decreasing military enlistment. The 104th Congress, under Title VII of Public Law 104-275, established the Commission on Servicemembers and Veterans Transition Assistance. The purpose of the Commission was to review the adequacy and effectiveness of federal programs assisting members of the Armed Forces for making transition and adjustment to civilian life. The Commission established three

panels to include health, employment and veterans' benefits. The effects of the Commission's findings are far reaching, as they serve as the basis for making recommends to Congress for maintaining, discontinuing, modifying or creating new programs of benefits for the military and veterans of the 21st century. The Commission concluded their report (January, 1999) with final recommendations that suggested not only has the current benefits delivery system and amount of educational benefits deterred educational participation, but the GI Bill is no longer an incentive for enlistment (p. 19). In specific reference to the Montgomery GI Bill, it stated: "The DOD Youth Attitude Tracking Survey confirms that college attendance is a dominant goal for high school graduates and their parents, and that military service is increasingly viewed as a detour around college enrollment, not a way to achieve it." (p. 4). Numerous articles and reports (Army Times, November 16, 1998, p. E2), (Army Times, Jan 28, 1999, p. 22), (Army Times, May 3, 1999, p. 60), (Billings Gazette, June 11, 1999, p. 7A), continued to suggest that the GI Bill and the decline of military enlistments are a major concern related to the GI Bill and veterans' education.

In summary, the importance of the GI Bill in maintaining a strong, qualified military force, and its importance in transitioning and integrating the discharged veteran into the civilian workforce has been supported by historical events and research examining the GI Bill. This research also indicated that the full potential of the GI Bill has not been realized due to declining participation, and degree obtainment among participants. Theories of participation in post secondary education, while not the focus of this study, are certainly important to understanding the many factors that influence the

decision to attend college for veterans. A review of adult education participation models may provide further insight on why veterans elect or choose not to use their benefits to attend college. The models also suggest a structure for identifying personal characteristics and factors contributing to academic success and degree attainment.

Adult Theories of Participation

Beyond the issue of eroding benefits, perhaps there are other factors involved in the lack of participation in education by veterans. Merriam and Caffarella (1991) devoted a complete chapter to adult participation in their book, Learning in Adulthood. Their eclectic approach supports their belief that there is no single theory and method for prediction of involvement in adult learning programs. A number of prominent theoretical models have been proposed to explain adult participation on both the individual, physiological and socio-environmental dimensions. A discussion of six prominent models of participation of adults in formal education provides a background to this study of Veteran Upward Bound participants.

Miller (1967) derived a theory of participation based upon Maslow's concept of basic needs and Lewin's force field theory. It seeks to predict participation based upon negative and positive forces both within the individual (motivation) and society. His analysis of social classes led him to generalize that lower classes pursued education for job-related or basic skill development, while upper classes sought education for self-actualization or achievement. His conclusions, based upon the interaction of the positive and negative force fields were that: 1.) If personal needs and social forces were high, participation would be high; 2.) If there were strong personal needs and low or negative

social support, there would be low participation with individual exceptions. Such a situation accounts for an explanation of the "poor boy making good." 3.) If there were low personal needs and strong social support there would be high participation initially, followed by a high drop out; 4.) Lastly, if there were conflicting forces, it would likely depend on the positive or negative social force over the individual force. Criticism of Miller's model has been directed towards its simplistic approach, and its failure to recognize that personal motivation cannot be assigned to class structure. A great deal of criticism is focused on his belief that self-actualization is an attribute of the upper class only and that job security is a lower class attribute. Miller's theory was valuable, however, in developing a foundation for further theory.

Boshier (1973) further developed Miller's theory of personal and social factor interaction. According to Boshier, adults are either "growth motivated" or "deficiency motivated." Growth motivated individuals have satisfied basic needs as described by Maslow, are "inner directed", "autonomous", "open", "spontaneous", "creative", and "free from deterministic attitudes" (p. 256). Deficiency motivated individuals are directed at satisfying lower, basic needs and subject to greater social and environmental forces. The greater the congruency of the actual and ideal self and the greater the congruency of the self with others (teachers, students, learning environments), the greater the participation rate. These factors of congruencies are mediated by what Boshier terms social and psychological factors (age, sex, social class) and sub environmental variables such as class size, instructor, transportation etc. Unlike Miller's theory, Boshier's construct has been subject to further research. Boshier (1973) and later Garrison (1987) tested the

congruency model. Boshier reaffirmed his hypothesis that the greater number of incongruencies led to higher drop out rates; however, the congruencies within the participant is "projected" or "generalized on the adult education situation" (p. 274).

Garrison's follow-up study proved less conclusive in identifying persistence and dropout variances. In contrast to Boshier's accounting of thirty percent of the dropout variables, Garrison could account for only 14.4 %. Garrison's research; however, was important in that he was able to predict ninety-three percent (93%) of those who persisted compared to a twenty-eight percent (28%) prediction of dropouts. Boshier's theory is important to this study and later retention theory, because it recognized personal factors (age, sex) and noted the important relationship between the learner and the learning environment (Bean's Interactive Variables).

Rubenson (1977) advanced participation theory by examining the participant's expectancy and value (valence). The individual's expectancy or perception of being successful led to increased participation. An individual's value towards learning was also seen as a positive force in determining participation in adult learning. Similar to previous researchers, Rubenson includes both psychological and environmental-social factors necessary for the structuring of values and perception leading to participation and non-participation.

Cross (1981) approached and extended the previous models of participation by attempting to identify relevant variables and examining their interactions. Despite her definite emphasis on individual psychological development of self and the examination of an individual's perception of education, her work is perhaps most important for

identifying and integrating the concept of adult life events and transitions. Additionally, she was the first to identify the importance of accurate and timely information as being an important variable to pursue learning. Such a concept supports Goodrich's (1998) concerns about the Montgomery GI Bill eligible veterans not using their benefits because they did not have sufficient information. Another important concept found in Cross's theory is her concept of the "chain of response model." The idea that adult participation is reciprocal rather than linear provides an explanation for the idea of "stop out participation."

Deviating from previous models, which emphasized the individual as the origin and focus of participation, Darkenwald and Merriam's Psycho-Social Interaction Model (1982) emphasized the social environment, especially the socio-economic status as predictors of educational participation. Their theory examines the "Pre-Adult Factors", such as individual and family characteristics regarding intelligence and socio-economic status, which determine the type and extent of education and socialization. These factors are important in preparing and setting the individual for entrance into adulthood and setting the stage for persistence in continuing education. An individual's participation is predicted on six characteristics, which are assigned a high, middle or low value. Darkenwald and Merriam defined these six characteristics or influences as: 1.) SES or social economic status; 2.) "Learning Press" or the extent in which one's current environment supports further learning; 3.) Perceived value and utility of education; 4.) The readiness of the individual to participate in the learning, 5.) Participant stimulus or those life experiences likely to trigger continuation of learning, and; 6.) Barriers to

individual learning or participation. More current research of Cervero and Kirkpatrick (1990) confirm that pre-adulthood characteristics as defined by Darkenwald and Merriam play an important part in explaining participation in formal learning environments.

Finally, Cookson (1986) developed a participation model based on cognitive factors. He termed his model ISSTAL and defined it as Interdisciplinary, Sequential Specificity, Time Allocation, and Life Span. This rather complex model examined some seven variables of contextual factors and personal variables including intellect and personality. These variables were examined over a time and relevance continuum. Cookson's later studies (1987) expanded the number of predictor variables to fifty-eight, but it too proved insignificant in predicting participation. He concluded that models dealing with participation were complex and multidimensional and that there is a need "to mount more modest studies which touch on overlapping portions of the ISSTAL model variable categories (p. 213).

In total, the various adult education participation models offer important insight into the complexity of the personal and social-economic variables involved in post-secondary education. The veterans of today's military are similar to their peers of World War II. They are largely poor or lower middle class, and most likely to be first generation college students. (Kime, 1993). There are notable differences too, which may account for the decline in veteran enrollment at colleges. Today's military forces are increasingly married (60%), female (14%), minority (30%), and have a high school diploma (98%) (U.S. Department of Defense, Personnel Report, 1996).

The questions concerning veterans' participation and utilization of educational benefits are important, along with emerging questions of whether the utilization of these benefits has resulted in accomplishing the educational goal of obtaining degrees or certifications, for which the benefits were used.

In 1993, Public Law 103-62 was enacted by Congress to improve the confidence of the American public in federal government initiatives, to improve federal program effectiveness and accountability, to improve the delivery of federal services, and to improve congressional decision-making based upon achievement of statutory objectives. This law entitled "The Government Results and Performance Act of 1993" (GPRA) will guide all federal programs well into the next century. Hence, the study of a veteran's population, who had successfully used their educational benefits to achieve their educational goals, is becoming increasingly important in budgetary and policy-making decisions. By exploring individual demographic data of subgroups of veterans, especially females and minorities, who have achieved their educational objectives as compared to those who have not, might provide insight into formulating policy on educational benefits and characteristics of successful users of these benefits.

The military, like the campus community, is undergoing complex and rapid change. Society is calling for a greater return on their tax investment, and participation is no longer defined as a measure of program success. The graduation and obtainment of a post-secondary degree followed by productive employment is now the new standard of successful outcomes of federal benefit programs. During the last two decades, a good portion of educational research has turned from participation to retention and

matriculation. Theories of participation have evolved into theories of student attrition and retention. A summary of which is presented in the following section.

Adult Retention Theories

Vincent Tinto's model of Institutional Departure (1975, 1993) has provided the groundwork for many researchers investigating student attrition (Nora, Attinasi and Matonak, 1990), (Pascarella and Terenzini, 1991), (Murguia, Padilla, Pavel, 1991). The strength of Tinto's theoretical model can be attributed to the fact that it is a longitudinal model that seeks to explain, not just describe processes that bring individuals to leave institutions of higher education (p.89). Tinto's primary thesis for persistence or withdrawal is based upon personal characteristics that the student brings to the institution. How well and to what degree these characteristics are integrated into the social fabric of the institution determines the commitment levels of the student, and ultimately the persistence and graduation of the student. Tinto's research, while useful for providing a foundation for understanding student attrition, had limitations, since his population of study was restricted to traditional age students. Differences between traditional and nontraditional students were noted by Bradley and Cleveland (1992). They found that nontraditional students experienced greater difficulty integrating into the social structure of the institution, but demonstrated a greater commitment to the goal of earning a degree. Martha Cleveland-Innes (1994) argues that the critical factors found in Tinto's model will systematically vary with age. She concluded, "Tinto's model is missing important variables associated with factors external to the institution". (p. 442). Her other findings indicated that commitment was the only significant predictor variable for nontraditional

students, and that academic integration remained a useful predictor for traditional age students only. It was not noted how commitment was measured, other than maintaining enrollment.

Peter Jarvis (1987) supported the idea of different external variables related to age. He contended that nontraditional students, because of their age and life stage, bring a different relationship between student and teacher. The nontraditional student's "experiential history" lessens the authority of teachers as often accorded to them by younger, traditional age students. He concluded that for traditional age students, being a student is central to their role, while nontraditional students are more likely to have additional roles and responsibilities beyond their student role. The research of Marienau and Chickering (1982) further acknowledged the difference in the student role of the non-traditional and traditional students.

Support for continued investigation of personal and educational demographics is found in Cleveland-Innes's (1994) conclusion that "chronological age is, in fact, a surrogate variable for what is really variation in life circumstances. It may be more appropriate to control for marital status, dependents, attitudes toward primary roles, responsibilities, and student-instructor relationships at post-secondary institutions" (p. 443).

The research of Murguia, Padilla, Pavel (1991), Mayo, Murguia, Padilla (1995), Cohen (1988), and others have investigated the role of ethnicity of minority students, as it relates to retention. The research of Richardson and Skinner (1992) pointed out the importance of two-year community colleges in attracting and transitioning first-

generation minority students advance to baccalaureate degrees. These researchers identified three dimensions that minority students face as first generation and minority students. These aspects included: 1.) "Opportunity orientation" a failure of minorities to perceive the opportunity and advantage of college as it relates to better career and job opportunities; 2.) "Preparation" included not only academic skills preparation, but expectation involving attendance, financial support and in some cases racial isolation, and 3) "Mode of college attendance" reflected nontraditional patterns for first generation minority students characterized by "shallow connection with the college and by extensive connections with the workplace or the home" (p. 35). The need for specific research and programming to attract and retain Native American college students is pointed out by Henderson (1991) who cited that Native American students have the highest dropout rates (35.5%) and represent 3.1 percent of all dropouts despite the fact they account for only 0.9 percent of all elementary and secondary students (p. 49). Wells (1990) found that nearly 3 out of 4 Native Americans attending college failed to earn degrees because of poor academic preparation, lack of adequate financial aid or personal problems.

Gender has also been a variable studied by research on retention. Brendan's (1985) research, while limited to female Weekend College participants, found common characteristics they share with all non-traditional students. The sample studied was less likely to develop strong social bonds within the institution, and they were often part-time students with outside institutional responsibilities. She concluded that there needs to be better data management in tracking non-traditional female students, better policies which allow for temporary leaves of absences, and better detection of academic difficulty. The

greatest retention rates in her study were among females aged 36-45 (61%, while attrition was greatest for females aged 25-36 (52%). She found a positive correlation between high school ranking and persistence (Her research supports the notion that GPA especially those above 2.5 is a good predictor of persistence). Reasons for leaving college varied among her sample: 11% of her sample cited financial reasons; job responsibilities accounted for 9.2%, medical reason; 3%, family responsibilities; 3%, maternity; 3%, moving; 2%; travel 2%, and 1% indicated attending another college. Other gender-based research found that women were more dependent on financial aid when compared to males (Gittell, 1986). Feiger (1991) found that a greater percentage of women cited that their family responsibilities posed a greater barrier to their persistence than male students. Women who were married, with younger children expressed that a lack of time to study, and a lack of financial resources presented the greatest barriers to their continuing college. Both of these researchers took their sample from two-year colleges and included race as well as gender as a variable of investigation. The research of Stein (1992) provided necessary information on Native American females and is of importance to this research since Native American females represent 46% of the female population of this study. Stein found that Native American females attending tribal college were more likely to be single head of households with family obligations. Stein also noted that these female students expressed personal dissonance arising from their tribal culture that places greater emphasis on family interests over personal attainment.

The above mentioned research is important for it provided the theoretical foundation currently shaping retention and persistence theory, and it provided continuing support for the investigation of personal and education variables as predictors of retention and degree obtainment. Each is limited; however, to a certain degree by their inclusion and focus on traditional age college students.

The investigation of veterans as college students requires theory and models of retention focusing on non-traditional age students, since for the majority of them, entrance in college occurs after their military service (Department of Veterans Affairs, SOV, 1992). The most prominent researchers investigating non-traditional undergraduate student attrition are Bean and Metzner (1985, 1987). Based upon previous research, which found that non-traditional students are affected more by external environmental variables than by social integration variables, they constructed a complex model including these and other sets of variables. Bean's (1985) original conceptual model of non-traditional student attrition is presented as Figure 1. Metzner & Bean (1987) later model of non-traditional retention is of particular interest to this study, since both authors have identified specific demographic background variables as influencing nontraditional student attrition and retention. This latter model provided the framework for the examination of certain characteristics and background variables of the study. Their emphasis on demographic characteristics is consistent with many of the veteran student studies cited early in this chapter. An illustration of their modified model (1987).is presented as Figure 2.

The Bean and Metzner (1987) model as indicated presents four sets of distinct variables useful for predicting drop outs among non-traditional students. These sets of variables include 1.) Background, 2.) Academic, 3.) Environmental, and 4.) Social integration variable sets. The model illustrated direct relationships between variable sets, as well as, variables that offset ("compensatory interaction effects") the influences of other sets. Predicted outcomes for attrition as presented by the model are summarized as follows: 1.) When academic and environmental sets are "favorable" degree attainment is highly likely; 2.) When academic variables are good but environmental variables are poor, students are likely to leave school, with no positive effects resulting from the academic variable and 3.) When environmental set variables are good and academic set variables are poor, students are likely to remain in attendance. Compensatory relations between academic outcomes and psychological factors are thought to exist when students, who score high in both sets, should complete college, and conversely, low scores in both sets will result in dropping out. It is not the intent of this study to examine these relationships between variable sets to prove or disprove the model, rather these interactions will serve as a backdrop for illustrating patterns of interaction among participants in this study.

Figure 1: Bean (1985) Conceptual Model of Nontraditional Student Attrition

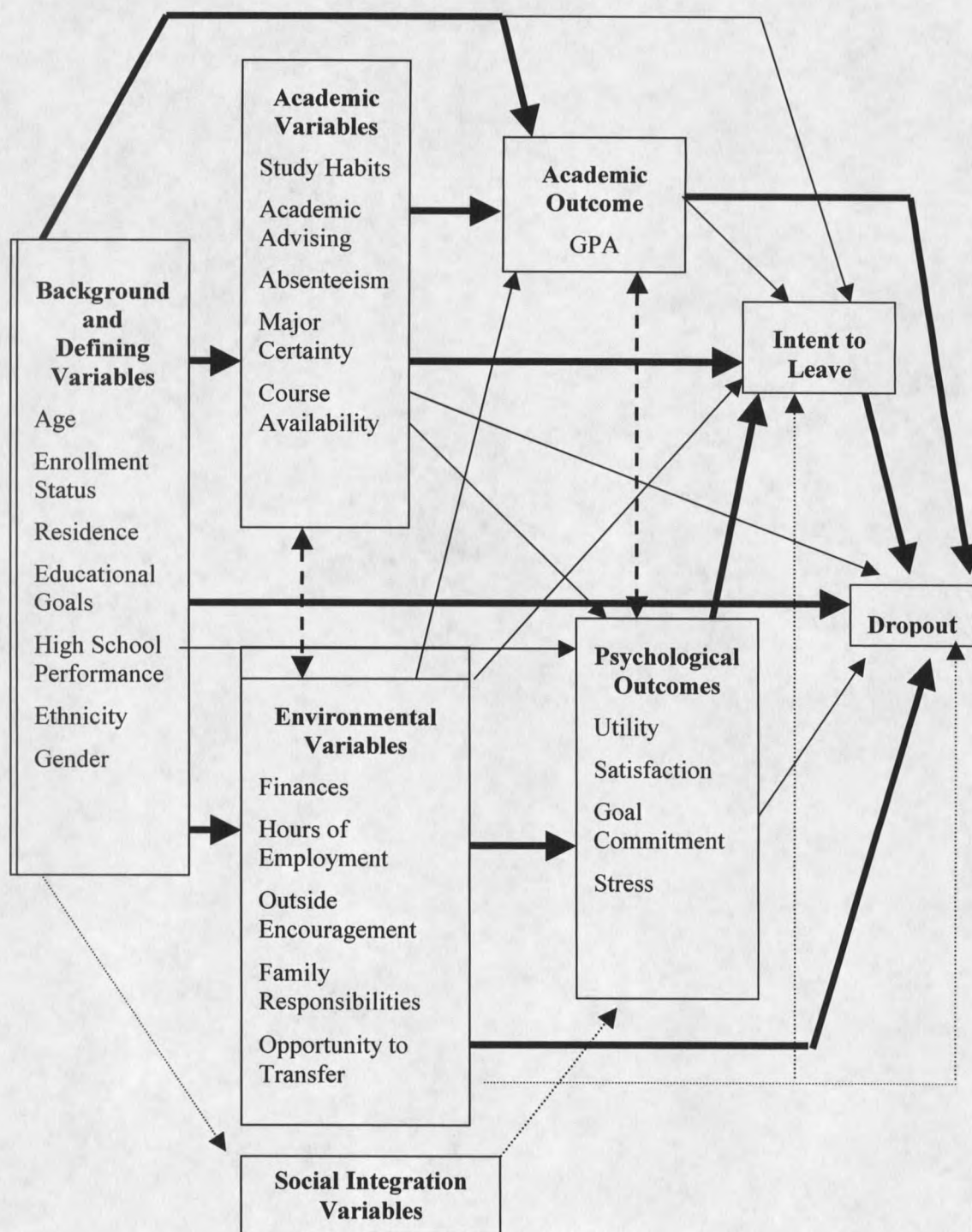
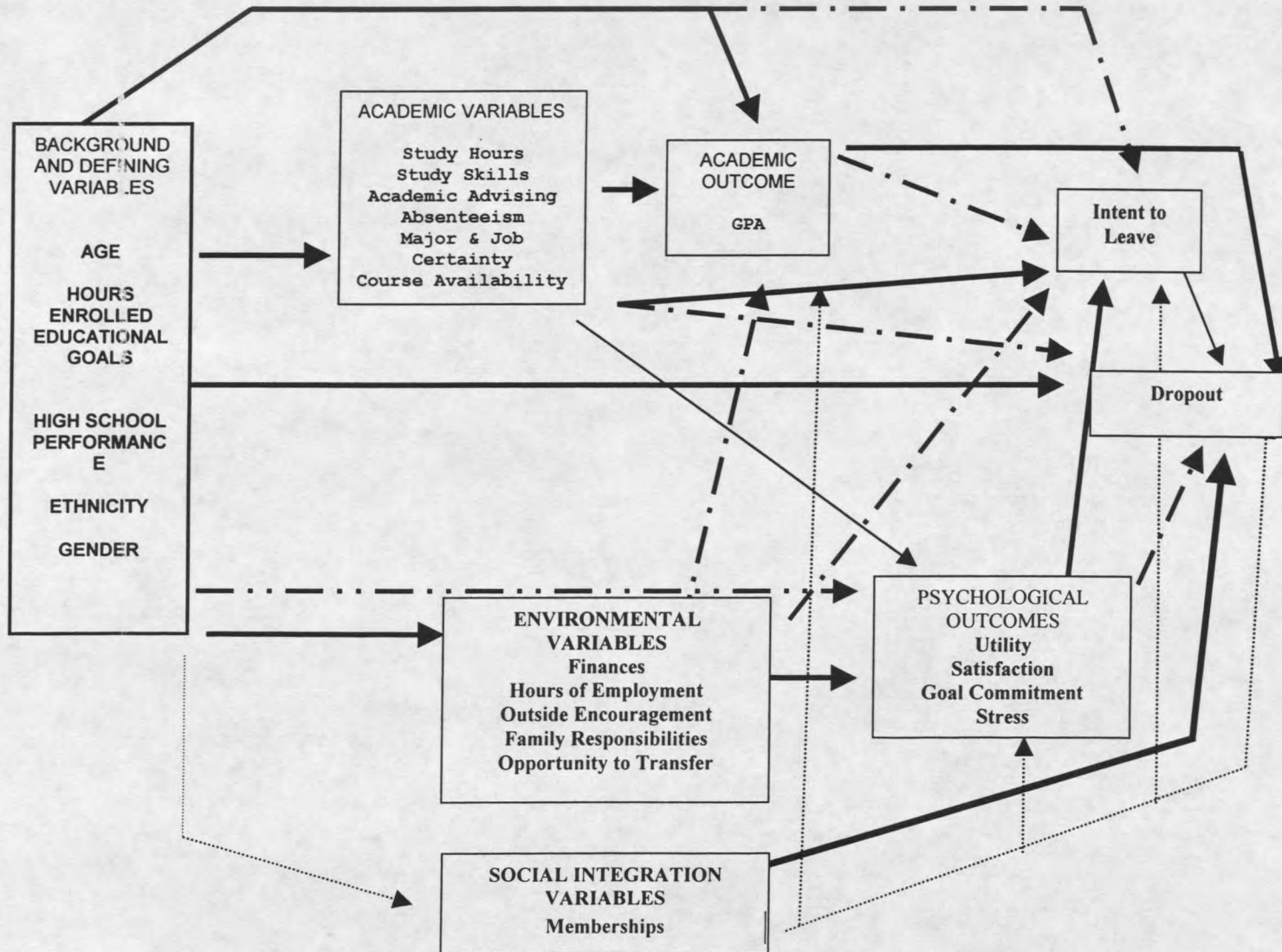


Figure 2: Metzner & Bean (1987) Estimation of Conceptual Model of Nontraditional Undergraduate Student Retention



Students with high scores in psychological sets are more likely to remain in school despite low academic achievement. Bean & Metzner's (1985, 1987) research created a conceptual model, which exclusively examined the non-traditional student population. The authors' extensive literature review of several hundred retention and attrition studies revealed only nine studies related to commuter, part-time or older students (non-tradition). In addition to examining previous research on retention, Bean and Metzner (1985) presented the first conceptual model of non-traditional student attrition, and provided a literature review of over several hundred references related to background variables. In presenting their model, they concluded: "Finally, researchers may wish to concentrate their efforts on parts of the model. It can be used as a guide to study GPA, satisfaction, stress, goal commitment, or other intervening variables, each of which can be treated as a dependent variable" (p. 530).

With their theory formulated, Metzner and Bean (1987) conducted a study to test the validity of their model. Data was obtained from 624 nontraditional freshman students from a midwestern urban university. Descriptive data of the sample revealed that for a one year period (Fall 1982-Fall 1983): 61% of the participants persisted or reenrolled; that 61% were female; that 14% were minority (90% black); that 83% were employed (50% full-time), that 27% were married and that the mean age was 23.8. Data were collected from registration and a student questionnaire previously validated by Metzner and Bean (1987). Employing regression analysis, the authors found that 26 variables of the 61 accounted for 29% of the variance in dropout. The study found that GPA, intent to leave, followed by background variables, and hours enrolled were the strongest predictors of dropout (p. 22). The participant's sense of utility and satisfaction proved significant in

influencing the decision to leave. Older students and those aspiring to higher degree attainment showed a negative effect on intent to leave. Three of the environmental factors-finance, outside encouragement, and the opportunity to transfer had a significant effect on intent to leave. Outside of class, faculty contact was the only positively related variable affecting intent to leave. Among background factors, high school performance, age, and ethnicity were significantly related to GPA. Perhaps most important was the finding that background variables were relatively important in affecting psychological outcomes. Beyond outside of classroom faculty contacts, social integration had no significant effects on dropout. This is in sharp contrast to attrition theory based on Tinto for traditional age students, yet supports current retention theory of non-traditional students. The four single variables most strongly related to dropout included GPA, intent to leave, hours enrolled, and study skills. The authors' practical recommendations support current practices of the Veterans' Upward Bound Project and included assessment of basic academic skills upon entrance, better academic preparation, and improved efforts to assess and monitor student absenteeism. The authors acknowledged the limitations imposed by one study, at one institution, with one population, and recommended further research into the 1.) Aspects of age, 2.) The relationship between GPA, and psychological factors, 3.) The examination of institutional dropouts in relationship to "higher education" dropouts, and 4.) The need for longitudinal research that investigates changes in student attitudes and performance. A factor analysis study conducted by Vellella and Hu (1991) concluded that: "In general, the factor analysis results support the conceptual model proposed by Bean and Metzner (1985). This study presented here reveals that for non-traditional students; the reality of time constraints and academic rigor

when compared with the expectations of college can lead to students' stress and dissatisfaction. This displeasure has the distinct potential of causing students to leave college." (p. 338).

The importance of attrition and retention research studies, especially the work of Bean and Metzner, provided a guide for investigating retention and degree attainment of veterans in this study. It provided further validation for the examination of various demographic factors of the research participants and suggested factors contributing to the retention and attrition of this study's population of interest.

The next section provides a comprehensive overview of research on veterans in higher education. While dated, it provides a basis for examining personal and educational factors related to academic success among veterans. Outside of the Atwell study (1999), there are no recent investigations of the current veteran population in higher education.

Veterans as Students

Research focusing on the educational experiences and successful outcomes of veterans as adult learners was very limited. Atwell (1999) cites three reasons that have resulted in limited research: " (1) The focus of the Department of Veterans Affairs has been, and will continue to be the timely and accurate delivery of benefits; (2) Previous accountability issues have centered on the number of veterans utilizing the benefits and ensuring that educational institutions and students are following VA rules and guidelines, and (3) Previous research has been of limited benefit and demonstrated the problems and complexities of conducting students' outcome studies" (p. 55).

Studies linking personal factors to academic success among veterans began shortly after World War II. Frederickson and Schrader (1951) conducted a study of 10,000 veterans at 16 colleges across the nation. A comparison of veteran and non-veteran characteristics was examined in relation to academic success. Major findings of this study revealed that the veterans' fathers had less formal education than non-veterans (and perhaps less financial resources?) and that the veterans themselves were more concerned about monetary issues and working full time. Similarly, Cohen, Segal, Temme (1992) found that a mother's education influenced grade point average and IQ. The father's occupation influenced the veterans' educational aspirations.

Both Burns (1974) and Henderson (1977) studied age as an important variable for a veteran's academic success. Burns found that the greater age of veterans resulted in higher grade point averages compared to the younger non-veteran student body. Chapman (1983) concluded that the greater age reflected a student's maturity and this factor should be considered as an important factor for college admissions. Weiss (1976) studied age as a factor in the academic performance of veterans attending North Hennepin Community College from 1972-1975. He found that veterans age 30 years or older had a slightly higher GPA than those veterans of age 23 or less or those 24-29 years of age. Burns (1974) found that veterans were at least four years older than non-veteran students and that married veterans earned higher grades than single veterans.

Burns found that the majority of veterans attending college were white and the majority of minority students were veterans. Johnson (1975) concluded that racial composition of veterans attending college was dependent upon proximity to urban

centers, with a greater number of black veterans attending community colleges in urban centers, and a greater number of white veterans attending college in rural areas.

Burns (1974), Clements (1973), and Joanning (1975) also studied the academic readiness of veterans entering college. Using the ACT college entrance exam as a measure of academic preparedness, they found that veterans (18.94 composite score) scored slightly lower than non-veteran student taking the same exam (19.81 composite score). Chapman (1983) determined that veterans did as well as non-veterans in their college work, despite lower high school aptitude scores, class percentile rankings and grade point averages. It should be cautioned that the veterans' population is changing demographically and the research cited can be questioned because it is dated.

There are many similarities between the veterans of today and those of World War II. The majorities from both groups entered the service from the lower and middle classes of America, they represented first-generation college students, and many were married with family obligations (Bennett, 1994), (Montgomery, 1994). Further, both groups returned to civilian life while America was transforming itself. World War II veterans were discharged into the age of industrialism and today's veterans are returning to the age of technology. The notable differences between the two groups are that today's military force is an all-volunteer force (a force made up of a greater number of ethnic minorities and women). The issue of "intelligence" and academic capabilities between the two groups is not easily addressed, since standardized testing for mental screening has changed significantly since the Second World War. All branches of the service for screening enlistments currently use the Armed Services Vocational Aptitude Battery (ASVAB). The Armed Forces Qualification Test is a subtest of the ASVAB,

which measure reading comprehension, word identification, numerical, and arithmetic reasoning skills. Scores on the AFQT classify recruits into five mental categories: Categories I and II are "above average" ability and are considered college proficient, Category IIIA is "average", and an acceptable risk for college, Category IIIB is also "average", but is at risk for college study, Category IV is considered "below average", and is a considerable risk for college level study, Category V is not eligible for enlistment. Anderson and Kime (October, 1996), in a paper presented at the American Association of Adult and Continuing Education's Adult Education Conference, cited statistics from the 1990 Population Representation in the Military Services (Fiscal Year 1990, p. B8) which noted: "among White recruits 24.7 percent were Mental Categories IIIB and IV; that among African American recruits, 52.5 percent were Mental category IIIB and IV; and among other minority groups 39.4 percent were Mental Categories IIIB and IV." Further, both authors pointed out that in the reserve components that are 81 percent white, 51.6 percent fall into categories IIIB and IV. These findings indicate a strong need for programs such as the Veterans' Upward Bound to assess and prepare veterans who desire to further their education, but are in need of stronger basic academic skills.

This study initiates an examination of VUB student demographic characteristics and postsecondary experiences not only in response to the call for greater federal accountability, but to better understand the barriers confronting veterans as they enter higher education. A historic and current overview of Veterans' Upward Bound is presented in the next section.

Veterans Upward Bound

Veterans' Upward Bound (VUB) was authorized as a one year \$5.8 million appropriation in 1972. The goal was to establish 50 Veterans Upward Bound projects and Talent Search projects to provide outreach, academic counseling and student support services. A total of 67 Veterans' Talent Search/Upward Bound projects were funded in 41 states, Puerto Rico and the District of Columbia. The remedial educational model for these projects was a federally funded demonstration project at the University of California-Los Angeles. The core of this program provided intensive instruction in math, writing and reading with a focus on preparing veterans to take and pass the GED. It was Congress's initial intent for Veterans' Upward Bound projects to serve only unemployed veterans without a high school diploma, or needing a GED to increase their marketability. At a national conference sponsored by the U.S. Office of Education and the American Association of Community and Junior Colleges in October 1972 (Wesby, 1988), the participant eligibility criterion was expanded to include all veterans in need of remedial academic assistance, regardless if they possessed a high school diploma or GED. For the next fourteen years, the Veterans' Upward Bound projects continued to struggle for funding and regulatory changes, which would allow them to serve all veterans and become a permanent project under the Office of Education's TRIO programs. These changes were realized through intense lobbying and were codified in the 1986 Higher Education Act. Since that time, and as recent of the Higher Education Act of 1998, Veterans Upward Bound projects have continued to propose modify legislative changes affecting instruction and program services to the changing population and needs of

veterans. As mentioned earlier, younger veterans are virtually all high school graduates, are increasingly married, are more culturally diverse, and have elected to contribute to a GI Bill education program in greater numbers.

Despite Veterans' Upward Bound grant requirements to demonstrate a need for program services indicating a sufficient number of needy veterans in their target area, there are large concentrations of veterans in states without funded projects.

The first funded VUB project in Montana began in 1992. A grant proposal to the U.S. Department of Education by Northern Montana College, the previous year, was successful in obtaining project funds to establish outreach, instruction and placement of veterans in post-secondary education and training throughout the State. Northern decided to locate the Project on the Montana State University Billings campus, since Yellowstone County has the largest concentration of veterans in the state (1990 Census). Unique to this grant was stated objectives to serve American Indian veterans. Outcome objectives for the Project included: 1) An annual enrollment of 120 low-income or first generation veterans; 2) At least 40% of the enrollment be American Indian veterans; 3) A demonstrated increase of at least 1.0 grade level in the subjects of math, writing and reading; 4) A total of 75% of participants must complete their VUB training.); 5) At least 75% of those completing the Project must be placed in college, and 6) Of those veterans enrolling in college, 15% will graduate in five years. For program years, 1992-1998 a total of 675 veterans have enrolled in Veterans Upward Bound, with 289 (43%) being American Indian veterans. The Montana Project has met or exceeded all outcome objects, most notably placing 76% of it graduates in post-secondary education, with 20%

of them graduating and 33% of them still actively enroll as reflected in the June 98 tracking report.

Montana's VUB has the highest enrollment of American Indian veterans in the nation. The Montana VUB Project design to serve American Indian veterans was developed and proposed to the US Department of Education after an extensive survey of American Indian veterans in 1992. The Tribal College Academic Bridge (TCAB) program is distinctly different from the Billings site, which is referred to as the College Transition Assistance Program (CTAP). TCAB was developed in response to Project survey conducted in 1992, which revealed four things: 1.) American Indian veterans were not well informed about their veteran's benefits or federal financial aid, 2.) That the majority of veterans surveyed were unemployed and had incomes of less than \$5,000, 3.) That the lack of money for tuition and books served as the greatest deterrent to entering postsecondary education or training, and 4.) The majority of veterans did not want to relocate off the reservation to attend college. The Project and the US Department of Education responded to these needs by supporting a Project component designed to include: 1.) An active outreach program to the reservations, 2.) Provide tuition assistance of up to \$360 per initial enrollment at their tribal college, and 3.) A plan to assist veterans assessing their academic skills, selecting credit courses, and applying for veterans and federal financial aid. This program design resulted in Project enrollment increasing from six-percent to forty-three-percent (43%) for American Indian veterans. The Billings site, unlike the TCAB program, does not provide tuition assistance, but provides for all course instruction, counseling, social-cultural activities, college placement and assistance with veterans and federal financial aid. These services are provided on a semester basis

consisting of day and evening classes have 14 and 10-week duration. All instruction is non-credit and non-graded and is offered separate from the MSU Billings curriculum.

American Indian Veterans

American Indian veterans have played a significant role in the US military, long before they were allowed to vote. Of the 1,627,447 enlisted and officer personnel, Native Americans comprise .58 percent of the total active duty force. This compares with a thirty percent (30%) total minority population within the military (U.S. Department of Defense Personnel Report, 1996). However, according to the 1990 Census, seventy-five percent (75%) or 134.7 thousand American Indian and Alaska Native veterans were wartime veterans; forty percent (40%) were Vietnam war era veterans, sixteen percent (16%) served in the Korean conflict, and nineteen percent (19%) served during World War II. Of the fifty five thousand American Indian and Alaskan Native veterans who served during peacetime, only 33.8 thousand (18%) served after the Vietnam era, and 20.2 thousand (11%) served between the Korean and Vietnam Era. The implications of wartime service supports the cultural emphasis of the warrior among many existing tribes, and reflects the honor they continue to bestow upon all tribal veterans who have served this role.

A study involving Montana's American Indian population is important in that three of the state's tribes--the Blackfeet Tribe and Cheyenne Tribe, and the Sioux Tribe are among the eight nations comprising sixty percent or more of the veterans of the Vietnam and Post Vietnam- Eras. These three tribes also comprise a large proportion of the Montana's VUB Project enrollment.

According to the U.S. Department of Veterans Affairs, Center for Minority Veterans (October, 1998), among American Indian veterans who specified a tribal affiliation, sixty percent (60%) or more of the veterans serving during these eras came from the following tribes: Blackfeet-68%; the Navajo-65%; the Lumbee, the Apache, and the Tohono Oldham-63%; the Sioux, the Cheyenne and Kiowa-60%.

There are numerous socioeconomic characteristics that also distinguish American Indians veterans from the national and Montana veteran's population. According to the 1990 census, twenty-five percent of all American Indian veterans do not have a high school diploma, and only twelve percent have graduated from a two or four year college. In Montana, twenty-seven percent of the state's Indian veterans do not have a high school diploma and only five percent have a post-secondary degree. This compares to a nineteen-percent high school dropout rate and an eight-percent degree attainment rate for non-Indian veterans within the state. However, a significant difference should be noted for the current military personnel and the currently discharged veterans, of whom ninety-eight percent are high school graduates, including Indian veterans. (U.S. Department of Defense, Personnel Report, 1996).

Nationally, forty-seven percent of American Indians and Alaskan Native veterans are under forty-five years of age compared to twenty percent for all veterans (U.S. Census, 1990). Significantly, the Blackfoot tribe in Montana has the youngest veterans' population in the nation, with fifty-seven percent of its veterans under the age of forty-five (U.S. Department of Veterans Affairs, Center for Minority Veterans, October, 1998).

Further 1990 census data reveals that sixty-eight percent of American Indian veterans were married; four percent were widowed, seventeen percent divorced, and

eleven percent were single. According to the Montana State University Northern's Veterans Upward Bound Demographic Reports for 1995-1998 (previous to these years data was not maintained for this area), forty-eight percent of the American Indian veterans were married, twenty-five percent were single and twenty-four percent were divorced. Hence, American Indian veterans in VUB were over twice as likely to be single and have higher divorce rates than the national averages for Indian veterans. Assumptions related to marital status might suggest that single veterans including the Indian veteran would matriculate in greater numbers since they would have less financial obligations and family responsibilities. On the other hand, given the extended kinship that exists on the reservations, many single Indian veterans may assume financial responsibilities for their immediate and extended families.

Beyond census data, the best and perhaps the only study of American Indian veterans is authored by Tom Holm in his book Strong Hearts: Wounded Souls. Written in 1996, and limited to the study of veterans of the Vietnam War, he notes often-overlooked contributions of Indian veterans to the United States military in past and current conflicts. Holm also examines the various tribal rituals and customs associated with these veterans in the context of being warriors. His survey on the reasons why Indian veterans enter the service provided insight on how strongly culture influences their decision to serve. In response to his questionnaire, fifty-one percent indicated that the service was a family tradition; forty-four percent indicated that it was a duty to serve the country; forty-three percent noted it was a tribal tradition and thirty five percent felt it demonstrated respect for Indian people. Unlike non-Indian veterans, who until recently favored military service as a mechanism to obtain job skills and resources to attend

college, Indian veterans were most likely to enlist for reasons attributed to their tribal traditions and culture.

It is important to examine the outcomes of American Indian veterans as part of this study, not only because a large number of them attended the Project, but as Tom Holm concluded: "the problem that still plagues many Native American veterans is that virtually no one except their own people knows of their sacrifices in war, much less that they fought in numbers exceeding their proportional population" (p. 11).

Review of Methodologies Used

This study utilized both the quantitative and qualitative approaches to answer the research questions. Descriptive methods were used in this study to describe the demographic characteristics of the population of interest and to examine the relationship (Chi Square and Fisher Exact tests) between these variables and academic success of participants obtaining a degree or demonstrating positive persistence (GPA of at least 2.0). The compatibility of this method of inquiry is confirmed by Gay (1992) who stated, "descriptive research involves collecting data in order to test hypotheses or to answer questions concerning the current status of the subjects of the study" (p. 249). This study compiled the demographic data of 517 veteran participants in the Montana Veterans Upward Bound Project with the purposes described by Welowitz, Ewen and Cohen (1990) that "the primary goal of descriptive statistics is to bring order out of chaos...descriptive statistics help resolve problems by making it possible to summarize and describe large quantities of data." (p. 18). Descriptive statistics were also appropriate for the type of data collected by this study. Glass & Hopkins (1996) described the

study's sets of data as "categorical characteristics" or "qualitative features" such as gender, age, and race (p. 3).

In determining the strength of the relationship between the demographic characteristics of participants to graduation and positive persistence, the Chi-square and Fisher exact test were used. Dretzke & Heilman (1998) confirmed the appropriateness of applying this method by stating: "When the researcher is interested in investigating the relationship between qualitative variables, the appropriate test is often the chi-square test of independence" (p. 151). Further Gay (1992) stated that the "Chi-Square test is appropriate when the data represented is nominal and the categories are true categories." (p. 243). The Pearson Chi-Square referenced in this study refers to the chi-square test that has been applied to frequencies, proportions or percentages (Huck & Cormier, 1996).

A qualitative approach was used to address the study's second research question, to illustrate the quantitative data, and to examine implications for Project improvement. Focus group interviews were selected as the qualitative method of inquiry. Despite focus groups having originated out of private sector marketing research, the use of focus groups has gained merit among educational and social researchers in recent years. Krueger (1994) noted:

Educational and nonprofit organizations have traditionally used fact to face interviews and questionnaires to get information...the focus group is unique from these other procedures, it allows for group interaction and greater insight into why certain opinions are held. Focus groups can improve planning and design of new programs and provide for means for evaluating existing programs. (p. 3).

Combining quantitative and qualitative research methods is becoming more frequent and has been acknowledged as having several advantages over a single research

paradigm (Krueger, 1994; Lincoln and Guba, 1999; Merriam, 1998). There are also several ways for using focus groups and qualitative research, as noted by Krueger (1994):

1.) Focus groups can precede quantitative methods, 2.) Focus groups can be used at the same time of quantitative methods, 3.) Focus groups can follow quantitative methods or 4.) Focus groups can be used alone. This study selected to use the groups following quantitative methods. This method is noted by Krueger (1994) as appropriate especially if the quantitative method yields a sizable amount of data that adds meaning and interpretation to the focus group.

The face validity of focus groups is relatively high (Krueger, 1994, Merriam, 1998), and caution should be exercised to control for the tendency of researchers to rush out and to immediately implement recommendations without adequate skepticism. Krueger (1994) noted both the advantages and disadvantages for employing focus groups. Their advantages included: 1.) They are a socially orientated research which occurs in a natural setting; 2.) They allow for a format that profiles and explores multiple and unanticipated issues; 3.) They have a high face validity; 4.) They are relatively low-cost; 5.) They provide speedy results, and 6.) They enable the researcher to increase sample size. The disadvantages mentioned by the author included: 1.) There is less control in groups versus individual interviews; 2.) The data obtained may be more complex to analyze, since comments are made and influenced in a social environment and therefore need to be interpreted in that context; 3.) Trained and skilled facilitators are needed to keep the group focused and to probe side issues; 4.) Groups tend to vary from one to another; 5.) Groups are more difficult to assemble than individual interviews, and 6.)

Groups must be conducted in an environment conducive to talking and may require incentives to participate.

Krueger's (1994,1998) Focus Groups: A Practical Guide for Applied Research and his Analyzing & Reporting Focus Group Results provided the foundation and the synthesis of focus group theory that guided the qualitative design of this study.

Krueger's expertise comes from over thirty years of experience in classes, workshops, seminars, research of the literature and observations of practitioners. This section of the literature review describes the three primary activities of planning, conducting, and analyzing focus groups based on Kruger's methodology.

Characteristics of Focus Groups

Focus groups have five characteristics that make them unique to the qualitative method of inquiry. These are: 1) They involve groups of people; 2.) They consist of a series of groups; 3.) The groups possess unique characteristics; 4.) They provide data in a natural, social environment, and 5.) They are focused discussions. While traditional focus group practices consisted of 10-12 people per group, Krueger (1994) has found that groups of 5-7 persons are more easily managed and yielded greater information (p. 11). People involved in focus groups are now more diverse culturally and economically and require a greater sensitivity to these differences. It is also recommended that focus groups be conducted as a series to detect patterns or trends across groups. This study conducted two groups of participants, one comprised of academically successful veterans and one comprised of those who had left school, or failed to make satisfactory progress. Focus groups should also possess a homogeneity that is related to its purpose. In this

study, the commonality shared by the participants was their status as veterans, their enrollment in the Montana Veterans Upward Bound Project, and their subsequent enrollment in postsecondary education. Focus group interviews are a method of collecting qualitative data, which are unique from Delphic processes or brainstorming processes that are intended to develop consensus, or to problem solve. Focus groups are intended to gather participants' perceptions, feelings and experiences that are related to a particular service or opportunity. Focus groups are also unique in that they take place in a natural environment where participants influence or are influenced by other participants in the group. Finally, "focus group discussions are predetermined, sequenced and based on an analysis of the situation." (Krueger, 1994, p. 20).

Planning Focus Groups

As in all research, the planning of focus groups should reflect the purpose of the study-why it is conducted, what kind of information is being sought, how is the information to be used and who wants the information? The answers to these questions have been introduced in Chapter 1 and are answered in-depth in Chapter 3. Krueger (1994) suggested several circumstances that are conducive to using focus groups as an appropriate research method. These are: 1.) To gather insights needed to explore or conduct preliminary studies; 2.) If there exists a lack of understanding between groups of people, such as program administrators and program students; 3.) If there is a purpose to uncover factors related to complex behaviors or motivations; 4.) If there is a desire for synergetic ideas to emerge; and 5.) If there is a high value on capturing comments for a target audience (p. 45). Conversely, focus groups should not be considered: 1.) If the

environment is emotionally charged; 2.) If the researcher has lost control of critical aspects of the study such as participant selection, group questions or analysis; 3.) If other methods can produce better quality information; 4.) If statistical projections are needed, and 5.) If confidentiality of sensitive information cannot be ensured. , In addition, the planning process for focus groups should be systematic and account for who facilitates the group, what information is predetermined to be essential, who should participate, how to contact participants, selecting an appropriate location, estimating the available resources and developing a written chronological and fiscal plan.

Conducting Focus Group Interviews

The development and method of questioning is the very foundation of focus groups. Krueger (1994) makes it clear that "Quality answers are directly related to quality questions." (p. 53). Focus groups usually include a dozen questions and each new question should focus on the intended purpose or "spark" new ideas. Krueger identifies five types of key questions and their intended purpose. These are: 1.) Opening Questions are intended to get participants acquainted and comfortable with the other group participants; 2.) Introductory Questions introduce the theme of the group, gives participants time to reflect on the theme and increases interaction; 3.) Transition Questions provide the transition from the opening conversation to the group's purpose, the process of questioning and the focus of questioning; 4.) Key Questions are the series of questions that directly obtain and gather information related to the research purpose. They are questions requiring the greatest attention for the analysis; 5.) Ending Questions bring closure to the group and provide for final reflection and input from the group. They

provide for a summary of key points made and provide for an opportunity to address any significant points not made. The process for developing questions can follow two routes for construction. The “topic” or “guide” questions are developed and listed under specified topic of interests or issues. This study used the interaction variables listed in Bean’s (1990) longitudinal model as the structure for developing topical questions. A second approach to question development is constructing whole or complete sentences that lead or guide participants to the topics of interest. Krueger (1994) also provided some guidance on what types of questions to avoid including dichotomous type questions (those that can be answered by a yes or no), questions that ask “why”, and questions that first “cue” answers. A better strategy is using uncued, open-ended questions followed by cued or structured questions if necessary.

Participants in Focus Groups

While randomization of the sample is fundamental to experimental and quantifiable studies to remove biases, the “driving force” in participant selection is the purpose of the study (Krueger, p.87). As often the case, a list of potential participants is drawn up and participants are either systematically selected or selected based upon features related to the purpose (stratified). While three focus groups are suggested, Krueger (1994) confirms that there is no magical number or requirement, but rather a series of groups be conducted until there is a “theoretical saturation” or no new or relevant information is obtained (p. 89). Fewer groups are needed as in this study, when the group focus is narrow or when participants have similar backgrounds and exposure to the event. Participants in this study are all veterans, who have participated in the

Montana Veterans Upward Project, and who experienced postsecondary education.

Veterans who participated in this study were initially contacted by phone; mailed consent of information forms; were provide a pre-group questionnaire; provided a casual meal; and received a financial incentive for participating.

Analysis and Reporting of Focus Group Results

Krueger (1998) noted that the development and origin of focus group analysis is based on traditional qualitative research methodology and marketing research (p. 127). Several advantages as mentioned earlier have contributed to the focus group process becoming more popular in social and educational research, and it is gaining a greater acceptance as a qualitative research methodology. As such, there is a number of guiding principles and practices that contribute to the rigor and verifiability of focus group analysis. The analysis of information, as in other research methods must be systematic both in its analysis and in the collection of data. Krueger (1994) outlined six steps in establishing a systematic protocol for gather focus group information. These six steps include: 1.) The sequencing of questions to allow for maximum insight; 2.) The capturing and handling of data through unobtrusive electronic methods such as tape recording; 3.) The coding of data, ideas, topics such as axial coding methods; 4.) Verification of participant intent and meaning of participant narrative achieved by moderator's summary questions or verification by an external auditor; 5.) Arranging a debriefing immediately after the groups with the moderator and assistant moderator to capture key narrative descriptions, and 6.) The sharing of preliminary reports with other researchers to examine or challenge assumptions (p. 128-129). Krueger (1994) remarked that the importance of

establishing a systematic protocol ensures that: 1.) Useful information for a specific purpose is communicated; 2.) That a logical description of the total investigation is provided, and 3.) Historical records of the findings are provided (p. 164). Specific protocol for gathering, recording and analyzing information obtained through the focus groups is described more fully in Chapter 3 on Research Design and Methodology.

This section of the literature review provided a summary of focus group methodology. As a qualitative method it has both advantages and disadvantages to the researcher. As a qualitative method of inquiry, it too must conform to a systematic and rigorous protocol for gathering and analyzing information. Despite its commercial origin in marketing research, the use of focus groups is gaining acceptance as a tool for program assessment and wider acceptance as a research tool. It was an appropriate tool for addressing this study's second research question. The next chapter provides an in-depth review of this study's research design and methodology.

Implications and Conclusion of Literature Review

The literature reviewed for this study was predominately historic in nature. The development of the GI Bill, the role of veterans in higher education, the summary of adult participation, and retention studies tended to reflect past events and their importance at the time. The literature review found that specific research and studies of veterans, as students were more abundant for the Vietnam era or earlier war periods veterans. The one exception was Atwell (1999), whose study pertained to development of a veterans tracking model. However, the historic nature of the literature does not lessen its importance to this study. This perspective provided a rich context for understanding the

role of veterans in higher education, the politics and policies influencing educational benefits and services to veterans, the mission of Veterans Upward Bound as a unique educational service to veterans, and insight into the role of American Indian veterans in America's military. The lack of current research including the void of information pertaining to the Veterans Upward Programs underscores the importance and need for this study. The next chapter provides detail for carrying out the quantitative and qualitative research design of this study.

CHAPTER 3

METHODOLOGY

Introduction

This research addressed the problem concerning the lack of information pertaining to Montana's Veteran Upward Bound participants who enrolled in the Project from 1992-1998. The purpose of this descriptive study is to examine selected demographic characteristics and postsecondary experiences of Montana's VUB participants to gain an understanding of the factors that contributed to their academic success or failure. Specifically the study seeks to: (i) to describe VUB participants based on selected demographic characteristics, (ii) describe the relationship between these characteristics and academic success (graduation and positive persistence), (iii) to illustrate the postsecondary experiences of Billings area participants, as it too related to their academic success or failure, and (iv) obtain information for improving Project services and practices. Four research questions guided the study in relationship to the stated purposes. Quantitative methods using the Pierson Chi square and Fisher Exact tests were used to examine the demographic characteristics of the total population of VUB participants who attended postsecondary education from 1992-1998. Focus group interviews were used to illustrate the findings relative to the postsecondary experiences of Project participants who enrolled in the Billings VUB program. These focus groups also provided information for improving Project services and practices. The four research questions addressed by this study were:

1. Based upon selected background and Project demographic characteristics, how are the Project participants, who entered postsecondary education best described?
2. What is the relationship of selected demographic variables of Montana's Veteran Upward participants who entered postsecondary education to academic success (degree obtainment and non-graduate positive persistence—retention)?
3. What are the important postsecondary experiences that contributed to the academic success or failure as illustrated by the Billings program participants?
4. What are the implications of these experiences for improving the Billings VUB program?

Descriptive Design and Methodology

Subjects

Among the total population of 683 veterans who participated in the Montana Veterans Upward Bound Project from Spring semester 1992 to Spring semester 1998, 517 veterans (76%) completed the program and subsequently enrolled in postsecondary education. However, twenty-two (22) of these veterans' files (4%) were excluded from the study because of incomplete information.

Subcategories of the 495 veterans were established to note participants who were academically successful and those unsuccessful. The academically successful group consisted of: (i) 100 participants who had graduated with a certificate, associate or bachelor degrees, (ii) 131 participants who were enrolled as of June 1998 with a grade point average of at least a 2.0. The academically unsuccessful group consisted of (i) 79

stop-out participants, (ii) 150 participants who dropped out, and (iii) 35 participants who were enrolled but failed to maintain a 2.0 grade point average.

Excluded from this study were 166 participants who elected not to enroll in postsecondary education or training after their VUB experience. They represent a sizable portion (24%) of the total Project enrollment. Documentation was maintained for reasons of non-entry into postsecondary education and training, and the most frequent reasons cited for decisions to postpone or not continue further education were related to finding employment (MSUNVUB Student Demographic Report 1992-1998). A breakout of the student population for quantitative analysis is presented in Figure 3. Descriptive statistics of all independent variables were used to obtain a profile for all VUB participants entering postsecondary education. The quantitative design for analyzing the relationship of independent variables and the dependent variables of graduation and positive persistence is summarized in Figures 4 and 4.1.

Null Hypotheses

In each of the Chi Square analyses described below, the Null Hypothesis tested was that no relationship exists between graduation or positive persistence and each the ten demographic variables examined in this study.

Variables

Two dependent variables defining academic success were of interest to the researcher and were selected for study, these were: (a) Graduation: attainment of a college degree or certificate and (b) Positive Persistence: currently enrolled with a GPA of 2.0 or better

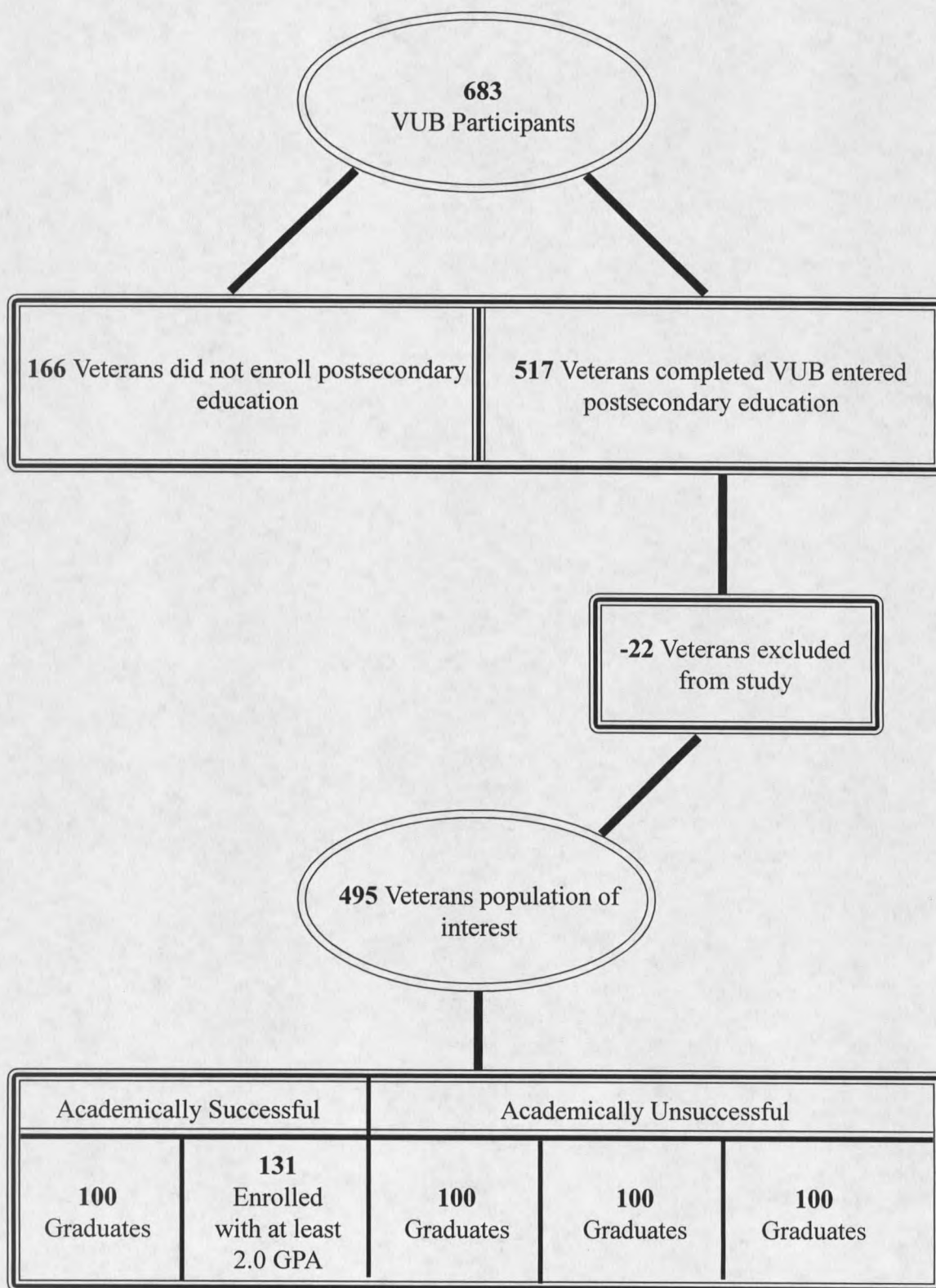
Figure 3: Montana Veterans Upward Bound Population Spring Semester 1998

Figure 4: Quantitative Analysis of Participant Independent Variables & Dependent Variable Graduation

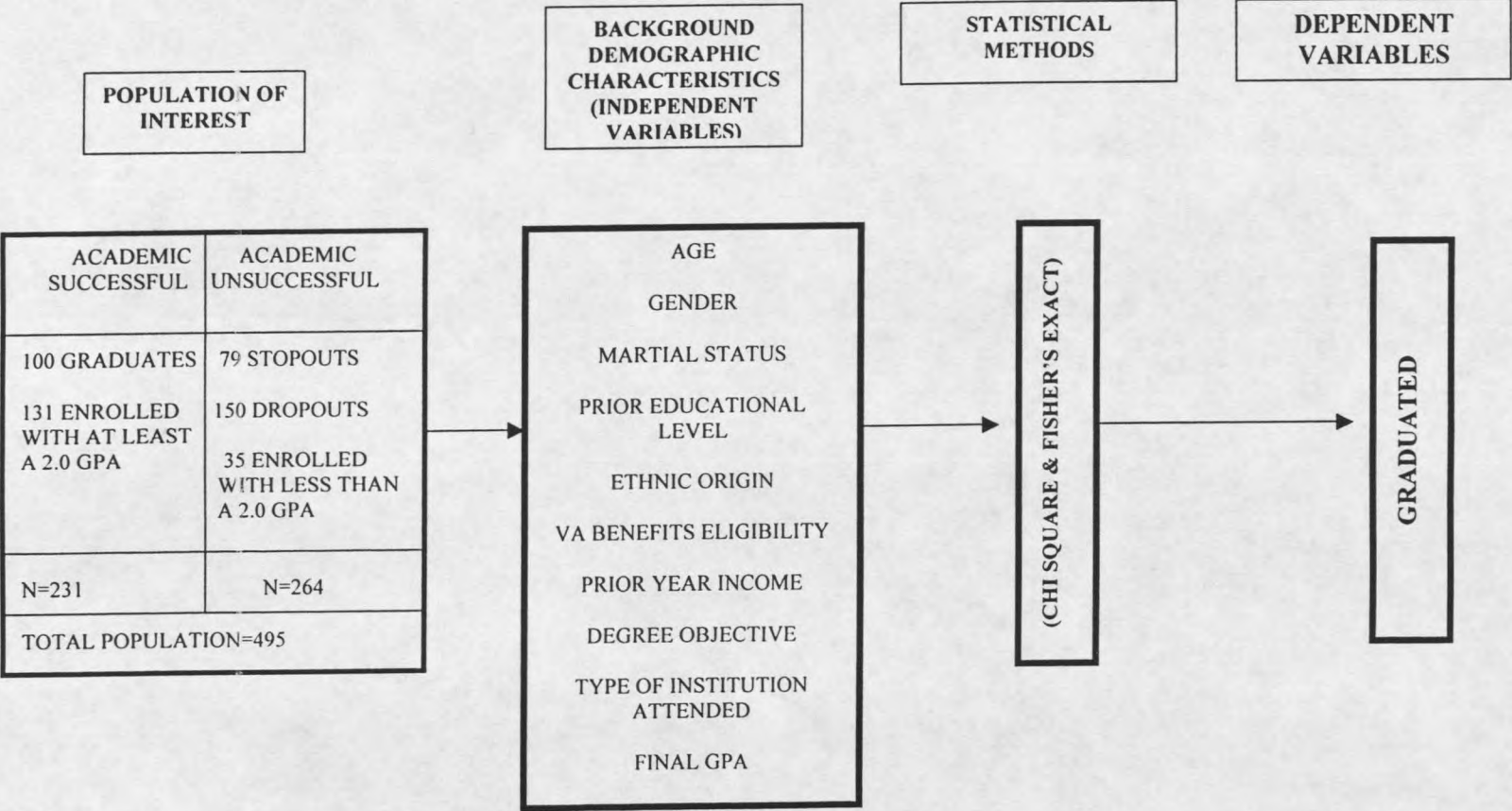
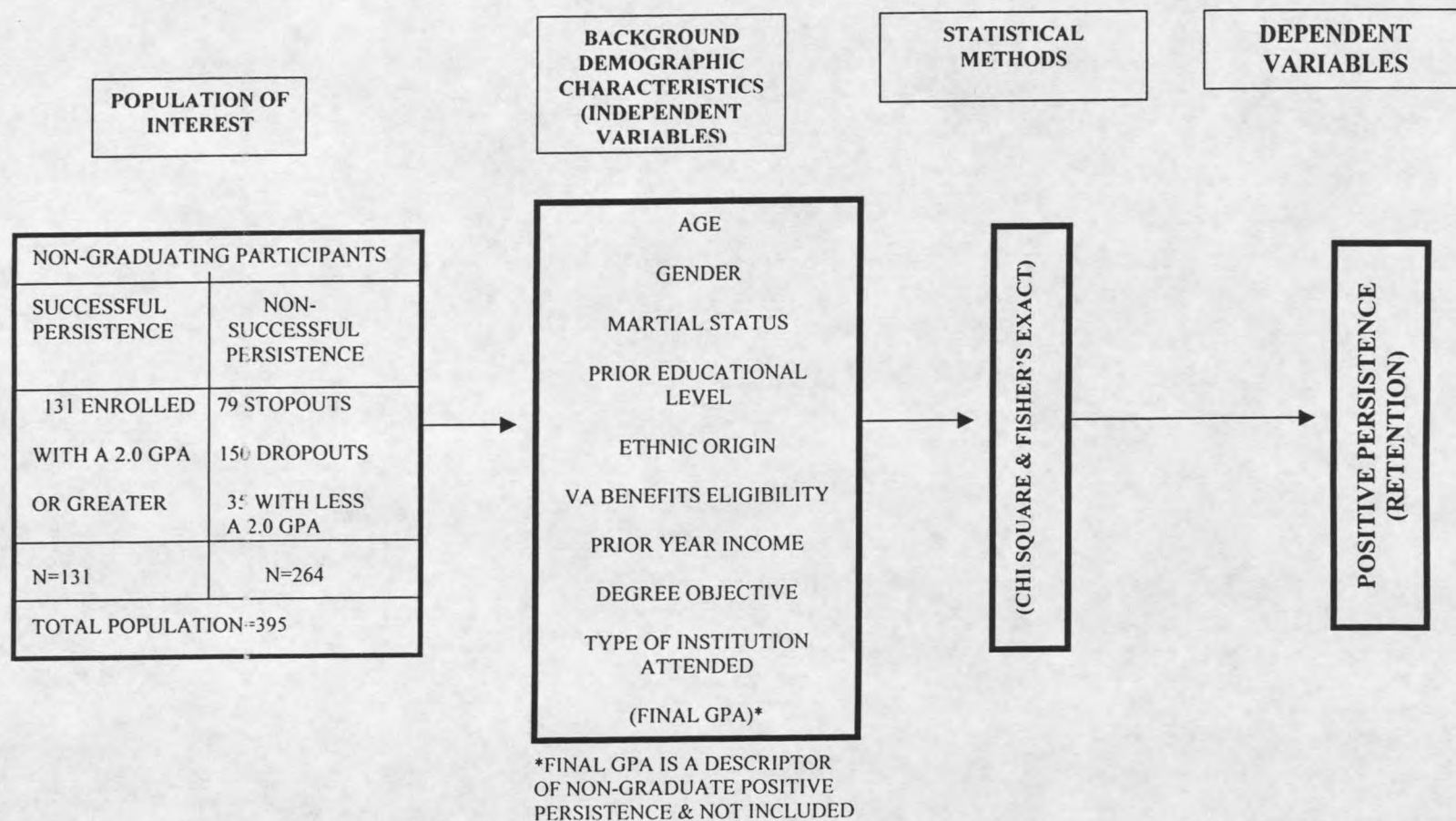


Figure 4.1: Quantitative Analysis of Participant Independent Variables & Dependent Variable Positive Persistence



A total of ten independent variables were selected from participant files that reflected demographic information of interest to the study. The selected demographic variables also corresponded to background variables thought to influence attrition and retention in the theoretical models reviewed in this study. It should be noted that the independent variable of grade point average (GPA) was not analyzed in relation to positive persistence, because it is a condition of positive persistence. The selected variables were defined as follows

- (i) Age: Chronological age (in years) of the participants upon entering the program.
- (ii) Gender: As indicated on participants' application. Gender was identified as: (1) male or (2) female.
- (iii) Prior Educational Level: As indicated on the participants' application at the time of enrollment. The veteran's prior educational level was indicated as: (1) no high-school diploma or GED, (2) high-school diploma or GED, or (3) attainment of some college credit.
- (iv) Ethnic Origin/Race: U.S. Department of Education categories used to describe the ethnic groups of participants. The participants' ethnic group was identified as: (1) American Indian/Native Alaskan, (2) Asian/Pacific Islander, (3) Black (non-Hispanic), (4) Hispanic, or (5) White.
- (v) GI Bill Eligibility: Participants' eligibility to receive veteran's educational benefits under all chapters (30,31,32,34/30,1606) of the GI Bill as verified by the Department of Veterans Affairs Regional Office in St Louis. Eligibility was identified as: (1) eligible or (0) ineligible and pertains to receipt of the GI Bill during VUB participation and the participant's first semester in postsecondary education.

- (vi) Marital Status: As indicated on the participants' application at the time of enrollment. Marital status was indicated as: (1) married, (2) single, (3) divorced, or (4) separated.
- (vii) Prior Year Income: Participants' annual income from the year prior to enrollment in the program.
- (viii) Degree Objective: Degree categories are indicated as: (1) AA/AS degree (2) BA/BS degree or (3) Certificates (i.e. less than two-year degrees), and indicated the applicants' degree objective upon entering college.
- (ix) Type of Institution Granting Degree: Institutions granting participant degrees were indicated as: (1) Two year public or private institutions, (2) Four year public or private institutions, (3) Two or Four year tribal colleges.
- (x) Final Cumulative Grade Point Average: Participants' cumulative grade point averaged on a scale of 1.0 to 4.0 with the latter being highest. This variable was examined in relationship to (a) graduation and not (b) positive persistence since it defined a condition of the dependent variable.

Limitations and Delimitations

The following restriction applies to the statistical portion of this study.

1. The population utilized for this study was limited to the participants enrolled in the Montana Veterans Upward Bound Project from Fall 1992 to Spring 1998, which entered postsecondary education.
2. All data analyzed were longitudinal, archival data obtained from the Montana State University-Northern Veterans Upward Bound Project.

Therefore, caution was exercised when viewing the population studied as a representative sample of all veterans or other VUB projects.

3. The primary delimitations of the statistical study were the exclusion of other demographic variables noted by other studies and theories on graduation and student persistence. Such variables as receipt of federal financial aid, parent educational levels, high school grade point averages and information pertaining to social status were excluded because they were not uniformly maintained in participant files, or readily available to this study. Other assumptions, limitations and delimitations, as noted in Chapter 1, are applicable as well.

Data Collection Procedures

The Montana Veterans Upward Bound Project has maintained archival data on all participants enrolled in the Project since 1992. Program staff enters all personal data obtained from the students' application into a Microsoft Access database in May and December of each year (close of Fall and Spring semesters). During the months of January and July of each Project year, letters are sent to the various postsecondary educational and training institutes where Project participants have applied or enrolled, to request their transcripts. This information results in the formation of an educational tracking file for each student. Each student's place of enrollment, the courses taken, the number of units attempted, the number of units completed and the grades received are coded in this file. The tracking file also includes when the student participated in VUB. All participants are tracked for a period of at least two years. The files of those students

who do not take classes during a two-year period are categorized as dropouts and are no longer tracked. Those students who are categorized as stop-outs are not currently enrolled but continue to be tracked if they have shown some academic activity within a two-year period. Official transcripts are maintained to verify grades and graduation.

Personal and educational data of students are maintained using Microsoft Excel data base management software. The personal and educational data of the 517 participants who enrolled in college were entered into the SPSS statistical software version 10.0 file. Data were verified for accuracy against student files and 22 veterans were excluded from the study because of erroneous or incomplete files. Finally, all data were numerically coded and entered into the SPSS software program for analysis. The following steps were used to establish the database and accuracy of information.

The names and social security numbers of the VUB 517 veterans who entered postsecondary education and participated in the Montana Veterans Upward Bound Project, from spring semester 1992 to spring semester 1998, were identified from the Project database.

The demographic data collected were verified by referencing original student files. Those files that were incomplete or erroneous were deleted from the population of study (n=22).

Demographic data from the remaining 495 veterans were obtained from the program application and the following supporting documents: IRS income statements or 1040 forms, discharge paper (DD214), high school or college transcripts, GED certificates, and a VA statement of benefits.

Data Analysis

Two statistical approaches were employed to analyze the relationships between the demographic characteristics of the participants and their academic success.

1. Descriptive Statistics:

As Gay (1996) recommends, "the first step in data analysis is to describe, or summarize, the data using descriptive statistics" (p. 432). This first step allowed the researcher to identify and summarize the characteristics of the population of interest. It provided a summary of the data for the variables of interest (range, min, max, mean, mode and SD) and created frequency distribution tables indicating the levels of the variables, with their associated frequencies and percentages.

2. The Chi-Square Test of Independence:

The Pearson Chi Square Test "goodness of fit" test was used to analyze the strength of the relationship between certain demographic characteristics of participants and their postsecondary academic success. "If a marked difference exists between observed or actual frequencies falling in each category and the frequencies expected to fall in each category on the basis of chance or a previously established distribution, then the Chi Square test will yield a numerical value large enough to be interpreted as statistically significant" (Popham, and Sirotnik p. 253).

The Chi-Square test was used to test the null hypothesis that the two specified variables (graduation and positive persistence) are not related to each of the ten independent variables. Significance was established at $p < .05$, indicating that there was less than a 5 percent chance that the difference in the observed and predicted values was

due to chance. Therefore, at $p < .05$ the null hypothesis was rejected, indicating that there is a relationship between academic success and the demographic variable being studied (i.e. the variables are not independent). The selection of the significance level of $\alpha = .05$ is a common practice in educational research. Additionally, the Fisher's Exact test was used when the two variables under consideration formed a two by two table. There are some precautions in using the chi square as noted by Welkowitz, Ewen and Cohen (1991): 1.) The chi square can only be performed when observations are independent; 2.) Any subject must fall in one and only one category; 3.) The computation must be based on all subjects in the sample, and 5.) Chi Square is an approximate test for obtaining values for observed frequencies, since frequencies cannot be negative, the distribution cannot be normal when the expected population values are close to zero. Expected frequencies should not be less than 5 for 1 df. It should be noted that frequencies less than 5 were analyzed, and were presented in the crosstabulations found in Chapter 4. These cell frequencies were presented to more fully describe the population of interest, and because the analysis did not affect the results.

Qualitative Design and Method of Study

Introduction

Marshall & Rossman (1999) provided an outline for proceeding with the design and methodology of qualitative research. Suggestions for formulating a qualitative design included: 1.) The rationale for the paradigm used; 2.) The population and selection methods; 3.) The data gathering methods; 4.) The recording, managing and analyzing data methods; 5.) The trustworthiness; 6.) Personal biography; and 7.) Ethical and

political considerations. Also included was the timeline for carrying out this research. This outline was used to establish the qualitative study of this portion of the research.

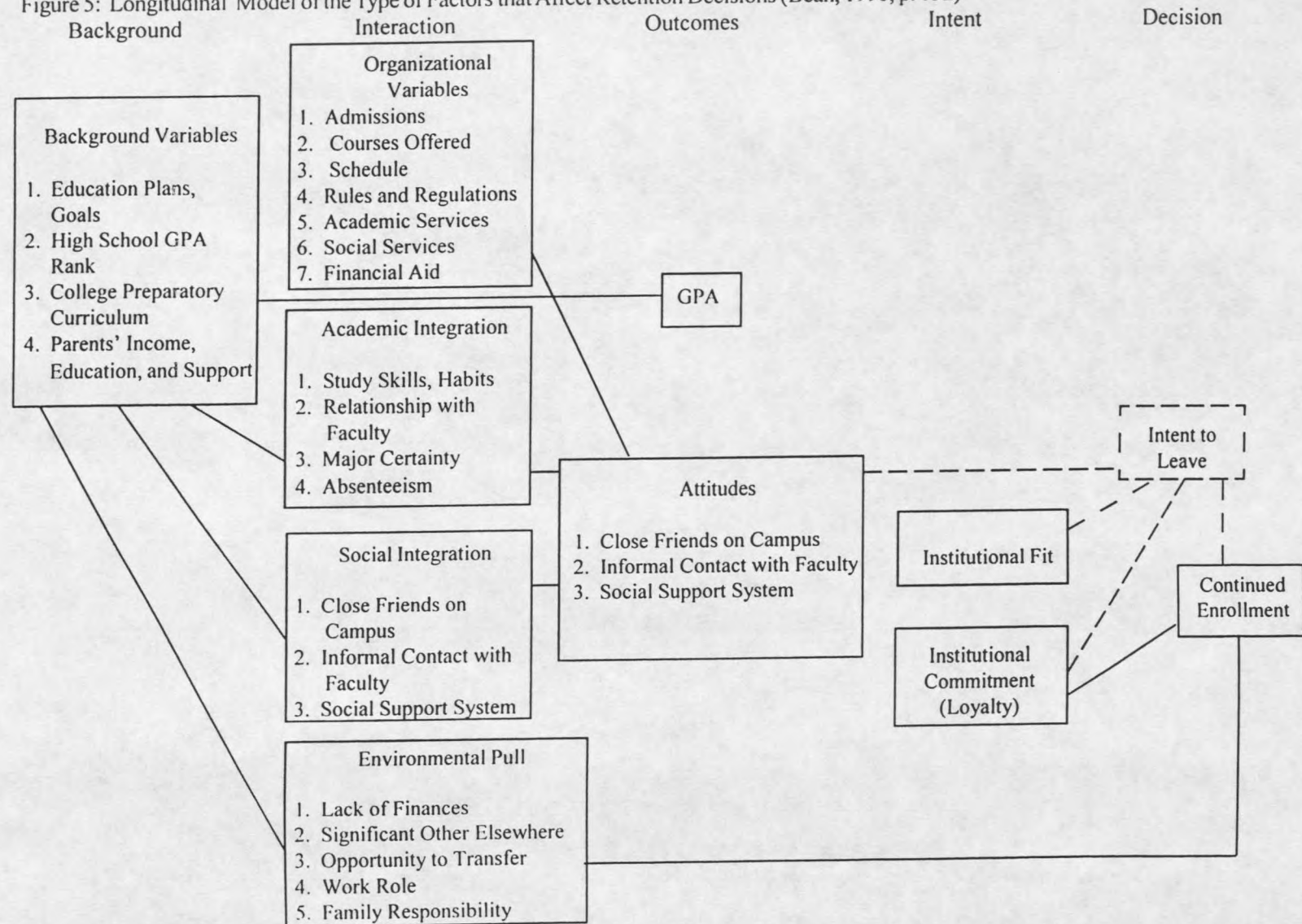
Rationale for Using the Qualitative Paradigm

A qualitative approach was used to address the third and fourth research questions set forth by this study. The lack of research related to the Veterans Upward Bound in general and to the Montana Veterans Upward Bound in particular, extends to a lack of understanding of the Project participants' educational experiences once they entered postsecondary education. Understanding these experiences has the potential of improving Project services and practices contributing to a greater academic success of participants. Hence, a "basic" or "generic" type of qualitative study as described by Merriam (1998) was selected to illustrate the college experiences of selected former Project veterans. It is not the focus of this study to substantiate a theoretical model, as in grounded theory research, but rather "to discover and understand a phenomenon (postsecondary experience), a process, or the perspectives...of the people involved" (Merriam, p. 11). As noted in Chapter 1; however, the Longitudinal Model of the Types of Factors that Affect Retention Decisions (Bean, 1990) provided the theoretical framework for framing the focus group interviews. The four sets of interactive factors as noted by Bean (1990), provided the focus of inquiry of participant postsecondary experiences. The model is presented in its entirety in Figure 5.

Focus of Inquiry

Determining the point of focus is an important first step in research, regardless of the paradigm utilized (Lincoln & Guba, 1985). The authors cited two primary reasons for

Figure 5: Longitudinal Model of the Type of Factors that Affect Retention Decisions (Bean, 1990, p. 152)



establishing the focus. "First, such focus establishes the boundaries...second, focusing effectively determines inclusion-exclusion criteria for new information that comes to light" (pp. 227-228). The focus established for this portion of the research was to illustrate the postsecondary experiences of selected Project participants. The "framing" of these experiences within Bean's Interaction Factors (organization, attitudes, social integration and environmental-pull factors), allowed the researcher to structure or guide the inquiry with enough flexibility for information to emerge, a key characteristic of naturalistic inquiry (Lincoln & Guba, 1985). It also provided boundaries for excluding or including narrative information.

Population and Selection

Marshall and Ross (1999) stated the purpose of the qualitative paradigm is to "illustrate subgroups" and to "facilitate comparison" (p.79). One purpose of this study's qualitative approach was to "illustrate" the postsecondary experiences of participating focus group members. The understanding of the Project participants' postsecondary experiences were limited, since only former VUB participants attending colleges in the Billings Montana area were included in the group interviews. This delimitation was noted in Chapter 1, excluded remote VUB tribal college participants that because of great distances were unlikely to attend the interviews. Three subgroups of participants were first established by tracking status to include: (i) participants who graduated, (ii) participants that demonstrated positive persistence, and (iii) participants who dropped out or stopped out (academically unsuccessful). Participants were further broken down by major demographic characteristics including type of institution attended, gender, and

ethnic origin. The composition of participants and those who attended is illustrated in Figure 6.

Figure 6: Focus Group Composition

COMPOSITION OF PARTICIPANT CONTACTS

Tracking Category (% of 495))	Total Number of Participants	4 year College (49%)	Tribal College (46%)	2 Year College (5%)	Male (84%)	Female (16%)	Native American (46%)	Non- Native American (51%)
Graduated (20%)	10	4	4	2	6	4	4	6
Positive Persistent (27%)	15	6	6	3	10	5	8	7
Unsuccessful (drop/ stop outs) (53%)	22	10	8	4	18	4	10	12
Total	47	20 (42%)	18 (38%)	9 (19%)	34 (72%)	13 (28%)	22 (47%)	25 (53%)

COMPOSITION OF FOCUS GROUP PARTICIPANTS

Tracking Category (% of 495))	Total Number of Participants	4 year College (49%)	Tribal College (46%)	2 Year College (5%)	Male (84%)	Female (16%)	Native American (46%)	Non- Native American (51%)
Graduated	3	1	1	1	2	1	1	2
Positive Persistent	2	1	0	1	2	0	1	1
Unsuccessful (drop/ stop outs)	7	6	0	1	4	3	1	6
Total	12	8 (67%)	1 (8%)	3 (25%)	8 (67%)	4 (33%)	3 (25%)	9 (75%)

A total of 47 former participants were contacted by phone about their willingness to participate in one of the two focus groups. Of the 47 persons contacted, 13 former Montana VUB participants agreed to participate in one of the two focus groups. The

actual group compositions represented all interested “subcategories,” but were not reflective of the actual proportion in the total population of interest. Four-year and two-year attendees, females, and non-Native American veterans were over-represented, while Tribal College attendees from Little Big Horn College, and Dull Knife Memorial College were not represented. Males and Native American veterans were under-represented in both groups. The following methods were utilized in selecting focus group participants:

1. A list of all former Montana Veteran Upward Bound participants who entered postsecondary education was printed (n=517). The list was separated into graduates, college enrollees and the non-successful academic participants.
2. A total of 47 participants were identified based upon demographic subgroup categories, their VUB site of enrollment, the likelihood of them participating, and a preconceived notion that they would be good contributors in a group environment. Phone numbers were obtained from student files or contacts, and individuals were contacted by the researcher..
3. Of the 47 participants contacted, 14 agreed to attend. Refreshments, food, childcare, and a \$20 incentive were offered for attending. Two of the 14 did not attend. One cancelled just prior to the interview, claiming illness, and one participant who confirmed her attendance, just didn't show.
4. Each of the 14 participants agreeing to attend were mailed a cover letter, detailing the date, site and time of the group. Enclosed was an Informed Consent Form as referenced in the Appendix A, and a pre-group questionnaire used to triangulate participant responses and to introduce them to theme

questions also referenced in the Appendix B. A highlighted map indicating the location of the groups and parking was also included.

5. A flyer was sent as a reminder and was planned to arrive a few days before their scheduled interviews. Finally, participants were called on the day of the interviews to confirm their attendance.

Data Gathering Methods

As noted in Chapter 2, focus group interviews, as a qualitative method of gathering information, can yield very valid results provided they follow rigorous procedures as earlier noted. Krueger (1994) stated: "Focus groups are valid if they are used carefully for a problem that is suitable for focus groups inquiry" (p. 31). The "suitability" was addressed earlier in this section, and the following described the study's protocol in preparing and gathering data:

1. Identification of participants who represented the diversity of the selected demographic characteristics for this study, who were thought likely to commit to attend and contribute, were invited to participate. This initial step was an important step in gathering data. Krueger (1994) observed: "Of all the elements of focus group interviewing, the most overlooked and underestimated aspect is the recruitment of the right people" (p. 76).
2. Equally important is the person who gathers the information. The selection of a group moderator was an important consideration for this study. Because the researcher was actively involved in many aspects of the participants' education, and served as the chief administrator, it was

decided that a group facilitator external to the VUB Project should be employed to avoid biases and provide greater objectivity. Dr. Cindy Dell was selected as the moderator. Her background in qualitative research, her professional interest in student retention, her familiarity with the theoretical models used in the study, and her work with Native American students made her an excellent choice. The one limitation of using her as a moderator was her limited knowledge of the VUB Project and her total unfamiliarity with any of the participants. These concerns were addressed by including an assistant, Mr. Fred Betz, who serves as the Coordinator of Instruction and Student Support Services for the Project. This collaborative arrangement provided an analytic environment for what Krueger calls the "middle ground" between fully accepting focus group information and being skeptical. This collaborative process had several advantages as listed by Krueger (1994). "It increases the connection with participants, it increases the talent pool, it increases the quantity and breath of feedback in conducting and carrying out the study, and it increases the analysis of results" (p. 189).

3. Pre-group planning was conducted with the moderator, assistant and researcher. A review of the study, the development of draft questions and Krueger's books on conducting focus groups were provided to acquaint the facilitators with focus group protocol. A second meeting was conducted to finalize the pre-group questionnaire and focus group

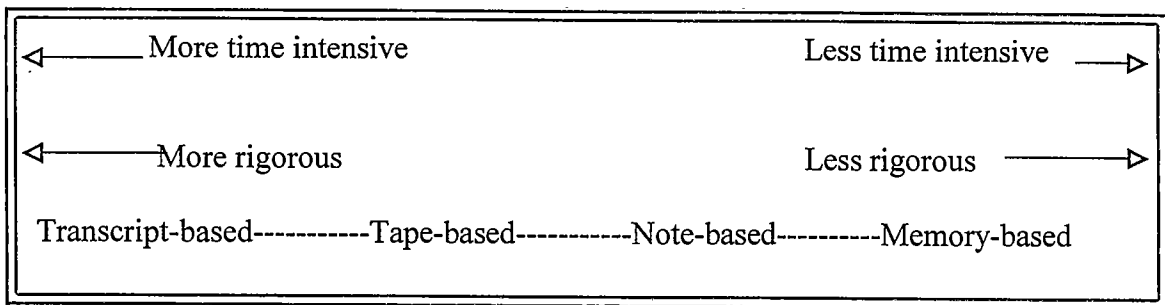
questions, to review the protocol, to ensure the necessary logistics, review the participants, and the methods for analysis.

4. Two separate groups interviews were conducted with one group of five “academically successful” and a second group of seven “academically unsuccessful” participants attending. The participant composition of these groups can again be referenced in Figure 6. The first group interviews lasted approximately 95 minutes, while the second group interviews concluded in 110 minutes. This did not include time for meals and introductions.
5. The groups were scheduled on a Wednesday night and Thursday night from 5:30 to 7:30, since many of the participants were working or attending school during the day. Several participants who worked at night made adjustment in their work schedules to attend. One participant’s babysitter cancelled at the last moment, but she was able to bring her children; they were entertained with videos and snacks while she attended the group. Group discussions were tape recorded on two machines, and both the moderator and assistant took notes. Upon the conclusion of interviews, and after all participants left, the moderators debriefed the researcher noting major themes, impressions, and insights. This information proved valuable in the analysis of the results described in the following section.

Recording, Managing and Analysis of Data

The researcher serves as the primary instrument in qualitative research (Marshall & Rossman 1990). As such, the collecting and analysis of qualitative data is a “simultaneous activity” as opposed to the linear process in quantitative research (Merriam, 1998). In the previous section the study’s protocol for recording and gathering of focus group data was described. Analysis as a separate process begins with the purpose of the study, which in this case was to gain an understanding of the postsecondary experiences of selected former VUB participants, as it related to their academic success or failure. Further, as Krueger (1998) stated “analysis starts by going back to the intent of the study” and that “the problem drives the analysis” (p.4). Hence in this study, the problem presented was the lack of information and understanding regarding the postsecondary experiences of a selected group of VUB participants. The quality of the focus group analysis rests not only in the procedures followed and the qualifications of the moderator, but also in what Krueger (1998) strongly voiced as essentially: “an openness to new ideas, approaches, and concepts” (p. 3). Focus group analysis, however, is different and unique from individual interviews or other forms of qualitative analysis. The most unique feature of the focus group process is that it derives data produced by participants influencing each other, and that opinions change and differs among members. Krueger (1998) describes this process as “evolutionary” and the recognition of these changes and shifts, including periods of silence, were important and had meaning in the analysis of the interviews. Because of the fluid nature of focus groups, Krueger (1998) suggested a protocol for analyses., which was followed by this study.

1. A tape base method of analysis was used and thought to be sufficient, since abridged transcripts were used collectively with moderator notes and a pre-group questionnaire for triangulation purposes. The diagram below illustrates a continuum of analysis strategy presented by Krueger (1998).



2. A tape base analysis was made of both focus groups interviews. The first group interview was conducted to gain an understanding of “academic success” in relation to the three areas of interest: (i) demographic variables related to academic success, (ii) the four interactive factors of Bean’s (1990) longitudinal model, and (iii) implications for Project improvement. A second group interview was conducted to provide information about the same three areas of interest; however, the focus was to gain an understanding of participant experiences that resulted in their not being academically successful.
3. After listening to the tapes, reviewing abbreviated tape transcripts, and noting answers to the pre-group questionnaire, data were coded and sorted into the three areas of interest described earlier. The results of the analysis are reported in Chapter 4.

Trustworthiness of the Research

The “truth value” (internal validity) of the qualitative design is described by Lincoln & Guba (1985) as the “extent to which the findings relate to reality” (p. 294). The authors cited the work of Denzin (1978) who described four methods to increase the credibility of qualitative research. All four of these methods were employed to various degrees within the design of this study. These methods included: 1.) The use of multiple investigators (a group facilitator, a Project staff member, and the researcher); 2.) The application of different theories (Bean’s nontraditional student models of retention [1985,1987] provided the theoretical framework for investigation of background variables and his 1990 longitudinal interaction factor model was utilized as the framework for understanding the college experiences of focus group within their institutions; 3.) The use of multiple sources of data (the study included database information, student hard files with verifiable documentation, focus group information and demographic data), and 4.) The use of different methods of inquiry (both statistical and naturalistic inquiry) supported the study.

The concern of the applicability of research findings to specific situations (referred to as transferability) is not claimed by the naturalistic paradigm. In fact, “in a strict sense it is impossible” (Lincoln & Guba, p. 316). This does not diminish its importance, however, since “thick description” and “prolonged engagement” provided by this type of inquiry can enable future researchers “interested in making a transfer to reach a conclusion about whether transfer can be contemplated as a possibility” (Lincoln & Guba, p.316). The authors also suggested a number of methods to increase the dependability or the reliability of the study and the confirmability or the value of the data.

The researcher used several of these methods within the study. These included: 1) The keeping of auditable raw data contained and documented in student files; 2) The recording, coding and categorizing of narrative notes; and, 3) Utilization of Dr. Cindy Dell and Mr. Fred Betz as group moderators to review the coding and analysis of data.

Personal Biography

The role of the researcher as the research instrument is fundamental to the qualitative paradigm (Marshall, Rossman, 1999). Because of inherent biases of the researcher mentioned earlier, he decided to play an indirect role in the group facilitations. Marshall & Rossman (1999) termed the degree of the researcher's participation as "deploying the self" (p.79). This researcher defined his roles as: making the initial contact for calling students to invite their participation and explaining the study to them; serving as the "host" in welcoming the participants; introducing Dr. Dell as the group facilitator; and participating as a team member with Dr. Dell and Mr. Fred Dietz in analyzing the narrative data. Resumes of Dr. Dell, and Mr. Fred Dietz are included in Appendix D.

Ethical and Political Considerations

A primary importance to this study was participant confidentiality. Several procedures to insure participant confidentiality were followed and included: explaining the purpose and procedure of the study, providing an informed consent form to each participant, and providing the names and telephone numbers of the researcher and committee chair, if there were questions. Additional precautions were used in the study by referring to participants only by first initials. Students were further assured that the

tapes and transcriptions of the recordings would be destroyed upon successful completion of the dissertation.

While the literature review revealed several political events and impacts surrounding veteran benefits and services, this study was not conducted for any political purpose. The genesis behind this study was to provide evidence that the Montana VUB Project has met its obligations for carrying out federal mandates and Project requirements, and to look for ways of improving its services to Montana veterans.

Timeline to Conduct Research

A timeline was established to conduct all research activities of the study. This timeline (see Figure 7) provided a structure for conducting the statistical and qualitative investigation to answer the research questions. In the following chapter the results and findings of both methods of inquiry are presented.

Figure 7: Timeline For Conducting The Study

2000

Activity	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Draft Chap 1												
Draft Chap 2												
Draft Chap 3												
Collect Demographic Data												
Code/Analyze Demographic Data												
Finalize Drafts of Chap 1,2,3												

2001

Activity	JAN	FEB	MAR	APR	MAY
Defend Proposal					
Conduct Focus Groups					
Analysis & Auditing of Narrative Data					
Write Chap 4,5					
Defend Dissertation					

CHAPTER 4

RESULTS

Introduction

Two approaches of investigation were conducted in addressing the study's research questions. A quantitative method using both descriptive analyses was employed to describe the demographic characteristics of Montana's Veterans Upward Bound participants, and to seek to identify the relationships between these characteristics and graduation and retention. A qualitative approach using focus group interviews was utilized to illustrate the postsecondary educational experiences of academically successful and unsuccessful Billings VUB participants.

This chapter reports the results of these analyses, which are presented in the following sections: Descriptive Analysis Results, Chi Square Analysis Results (graduation and positive persistence), and Focus Group Analysis Results.

Descriptive Analysis Results

Analyses were performed on the demographic data of 495 veterans who participated in the Montana Veterans Upward Bound project between Spring semester 1992 and Fall semester 1998, and attended postsecondary education. The personal and educational characteristics analyzed resulted in a great deal of descriptive statistics. The computer program SPSS 10.0 was used to provide numerical and graphical representations of the analyses, enabling the population of interest to be described fully. The following participant characteristics were used as descriptors: educational attainment

status (tracking status), age, gender, ethnic/racial background, marital status, degree objective, prior educational level, type of institution attended, prior year's income and final GPA.

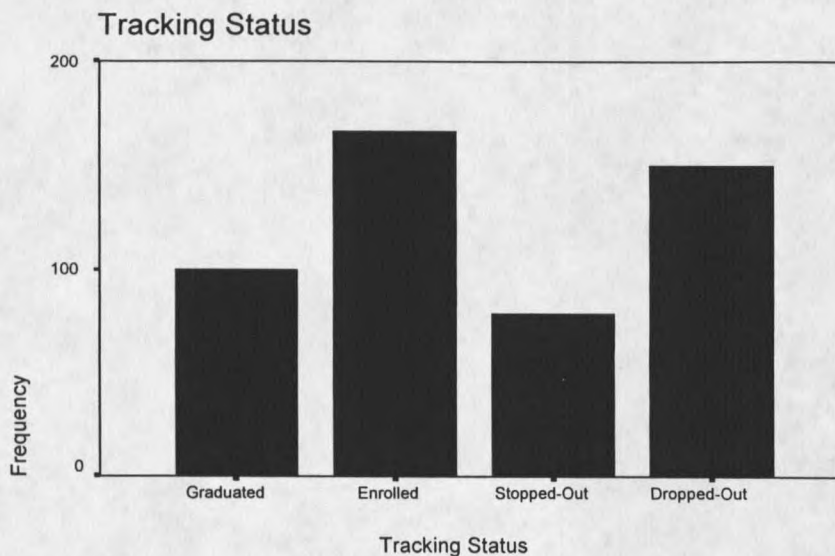
The following frequency tables provide the frequency (count) and relative percent that fell within subcategories of the descriptive categories analyzed within the population of interest. Each frequency table is followed by a bar chart that graphically displays the frequencies observed.

The educational attainment status of the participants as of Spring semester 1998 is displayed as Table 1. One hundred (100) of the 495 participants (20%) had graduated from a post-secondary institution. Among the remaining 395 participants, 33.5% were currently enrolled, 16% had stopped-out (i.e. not attended for less than 2 years) and 30% had dropped-out (i.e., not attended for 2 or more years). The distribution of the attainment status is displayed as Figure 8.

Table 1: Educational Attainment Status

Tracking Status	Frequency	Percent	Cumulative Percent
GRADUATED	100	20.2	20.2
Enrolled	166	33.5	53.7
Stopped-Out	79	16.0	69.7
Dropped-Out	150	30.3	100.0
Total	495	100.0	

The distributions of the independent, explanatory variables describing personal characteristics: age, gender, marital status, prior education level, ethnic origin, VA benefit eligibility, and prior year's income are displayed in Tables 2a through 11 and Figures 9 through 18.

Figure 8: Histogram: Educational Attainment Status

The statistics regarding the age of the participants are displayed in Table's 2a and 2b display. The wide age range of the participants in the VUB project are illustrated in Table 2a. . The youngest veteran was 17 and the oldest veteran was 70. Therefore, there was a 53-year range in the ages of the participants. The average age (mean) of the veterans was 34 with a large standard deviation of nearly 11 years around the average. The median age was 32 and the most common age (i.e., the mode) was 25.

The frequencies within the age intervals specified are displayed in Table 2b. The range of ages was divided into nine intervals. All but the minimum and maximum age intervals specify a span of five years. Due to the fact that only 16 participants were below 21 years of age, the minimum age interval was specified to encompass a span of eight years (17 to 25). This age interval accounts for over 27% of the participants. Nearly 20% of the participants were between 26 and 30 years of age. As indicated by the

median, 50% of the participants were 32 years of age or younger. The remaining 50% of the participants' ages as distributed are displayed in Table 2b and Figure 9.

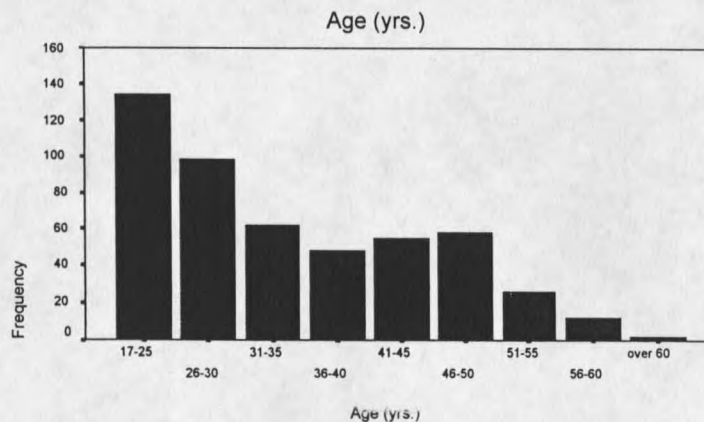
Table 2a: Descriptive Statistics: Age

Variable	N	Range	Minimum	Maximum	Mean	Median	Mode	Std. Deviation
Age	495	53	17	70	34.36	32	25	10.71

Table 2b: Age Interval

Age Interval (yrs.)	Frequency	Percent	Cumulative Percent
17-25	134	27.1	27.1
26-30	98	19.8	46.9
31-35	62	12.5	59.4
36-40	48	9.7	69.1
41-45	55	11.1	80.2
46-50	58	11.7	91.9
51-55	26	5.3	97.2
56-60	12	2.4	99.6
over 60	2	.4	100.0
Total	495	100.0	

Figure 9: Histogram: Age

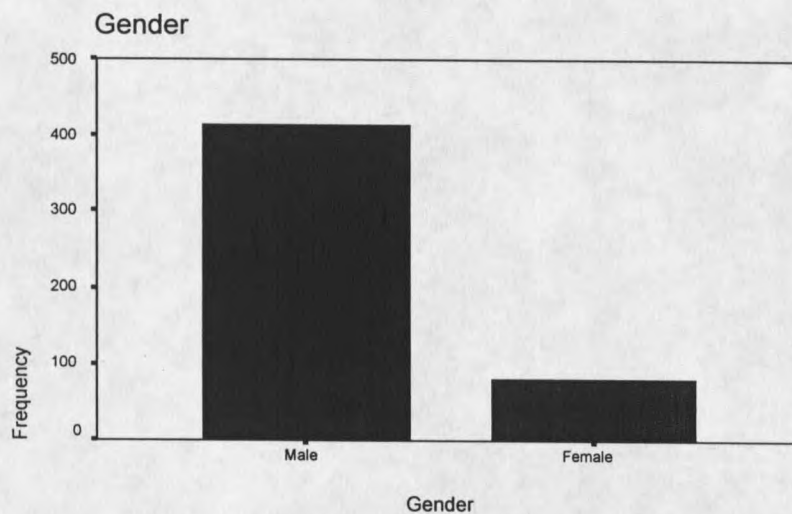


As one would expect, the majority of the project participants (84%) were male.

The participants' gender is displayed in Table 3 and Figure 10.

Table 3: Description Statistic: Gender

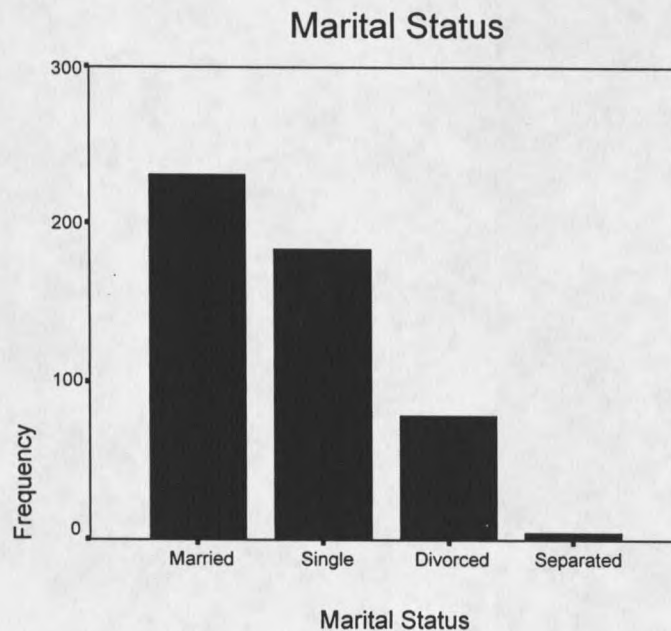
Gender	Frequency	Percent	Cumulative Percent
Male	414	83.6	83.6
Female	81	16.4	100.0
Total	495	100.0	

Figure 10: Histogram: Gender

The marital status reported by the project participants is displayed in Table 4 and Figure 11. The data indicated that 46.5% were married, nearly 16% were divorced and less than 1% were separated. A rather large percentage of the veterans were single (37%). However, with 50% of the participants 32 years of age or younger, this statistic is plausible.

Table 4: Descriptive Statistic: Marital Status

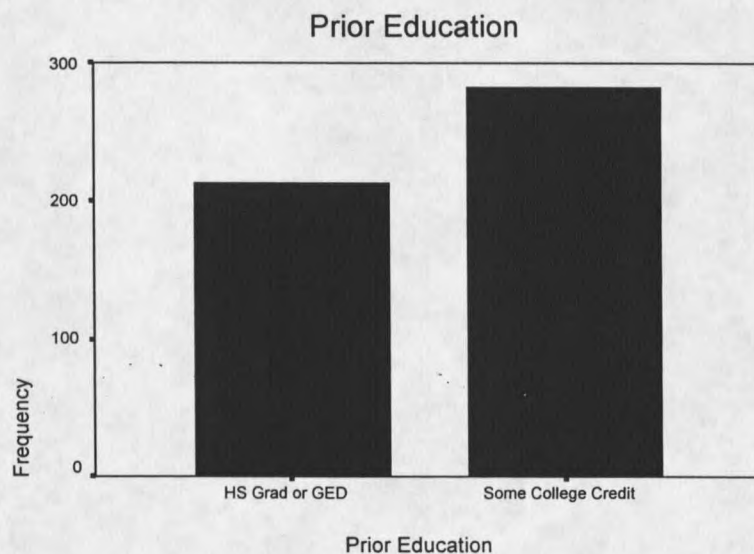
Marital Status	Frequency	Percent	Cumulative Percent
Married	230	46.5	46.5
Single	183	37.0	83.4
Divorced	78	15.8	99.2
Separated	4	.8	100.0
Total	495	100.0	

Figure 11: Histogram: Marital Status

The educational level of the participants prior to enrollment in the project was examined with the subcategories of 1) high school graduate or having obtained a GED, or 2) having earned some college credit. The prior educational level is displayed in Table 5 and Figure 12. Within the sample of Montana VUB participants, 213 (43%) had simply completed high school or received a GED diploma, whereas 282 (57%) had previously received some college credit.

Table 5: Descriptive Statistic: Prior Education Level

Prior Education Level	Frequency	Percent	Cumulative Percent
High School Diploma/GED	213	43.0	43.0
Some College Credit	282	57.0	100.0
Total	495	100.0	

Figure 12: Histogram: Prior Education

The ethnic origins of project participants are illustrated in Table 6 and Figure 13.

The data was descriptive of the ethnic origin/race of members of Montana's VUB.

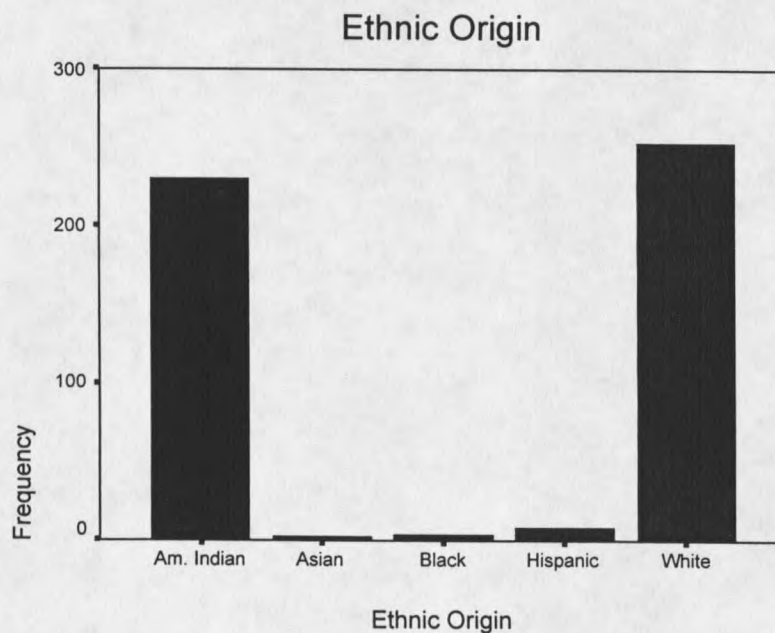
Among the Montana VUB participants, over 46% were American Indian or Native

Alaskan and over 51% of the participants were White. However, the subcategories of

Asian/Pacific Islander, Black, and Hispanic accounted for only 0.4%, 0.6%, and 1.6% of the sample, respectively.

Table 6: Descriptive Statistic: Ethnic Origin

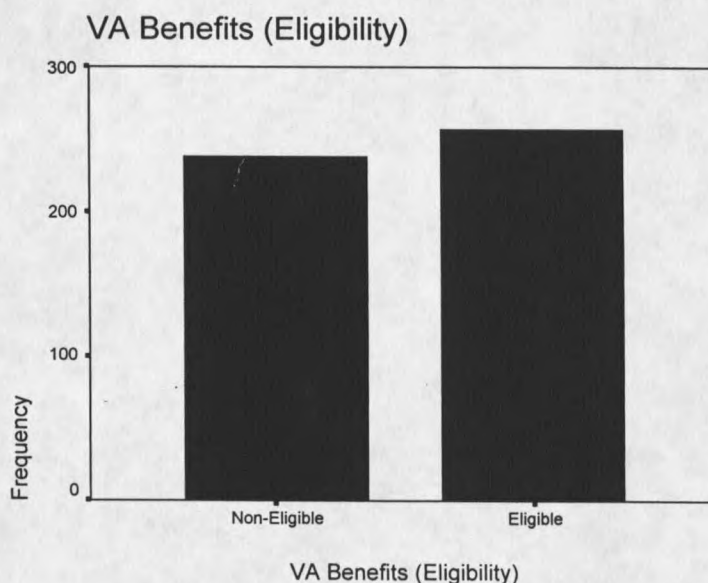
Ethnic Origin	Frequency	Percent	Cumulative Percent
Am. Indian/Native Alaskan	229	46.3	46.3
Asian/Pacific Islander	2	.4	46.7
Black	3	.6	47.3
Hispanic	8	1.6	48.9
White	253	51.1	100.0
Total	495	100.0	

Figure 13: Histogram: Ethnic Origin-Race

Participants' eligibility for VA educational benefits was determined based upon the requirements specified in the GI Bill. Within the population of interest of Montana VUB participants, VA benefits eligibility, as displayed in Table 7 and Figure 14 indicated that: 48% were non-eligible for VA benefits, and 52% met the requirement(s) to be eligible and receive VA benefits.

Table 7: Descriptive Statistic: VA Benefits Eligibility

VA Benefits (Eligibility)	Frequency	Percent	Cumulative Percent
Non-Eligible	238	48.1	48.1
Eligible	257	51.9	100.0
Total	495	100.0	

Figure 14: Histogram: VA Benefits Eligibility

Each participant's income for the year prior to enrollment in the project was verified. The wide range and distribution of incomes reported as reported in illustrated in Tables 8a and 8b. The minimum verified income of \$0 was reported by 39% of the participants. Less than 6% reported that their income for the prior year was over \$30,000. Among this 6% was the participant who reported the maximum income of \$120,374. The average income for the 495 project participants was \$7,474. The wide range of incomes created a large standard deviation of \$12,006. The frequency and

percent of participants within the 8 income intervals specified is displayed in Table 8b and Figure 15.

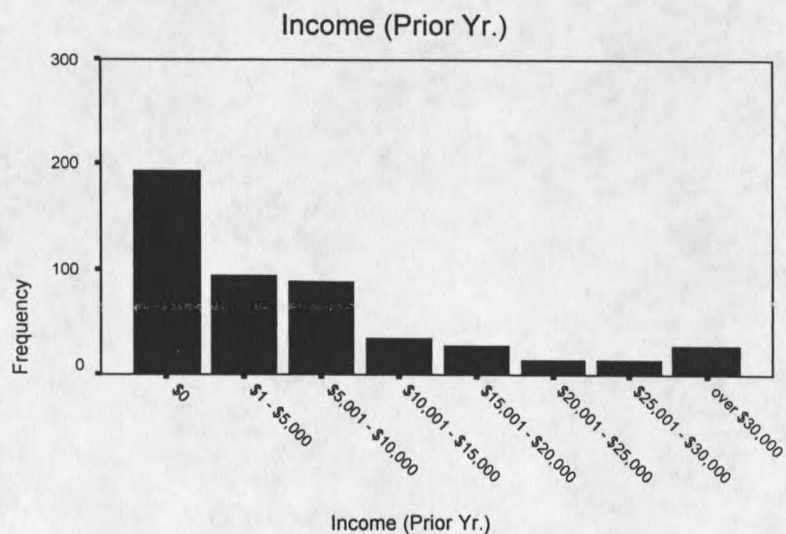
Table 8a: Descriptive Statistic: Prior Year's Income

Variable	N	Range	Minimum	Maximum	Mean	Std. Deviation
Income (Prior Year)	495	\$120,374	\$0	\$120,374	\$7,474.42	\$12,005.91

Table 8b: Prior Year Income Intervals

Prior Year's Income	Frequency	Percent	Cumulative Percent
\$0	193	39.0	39.0
\$1 - \$5,000	94	19.0	58.0
\$5,001 - \$10,000	89	18.0	76.0
\$10,001 - \$15,000	35	7.1	83.0
\$15,001 - \$20,000	28	5.7	88.7
\$20,001 - \$25,000	14	2.8	91.5
\$25,001 - \$30,000	14	2.8	94.3
Over \$30,000	28	5.7	100.0
Total	495	100.0	

Figure 15: Histogram: Prior Year Income



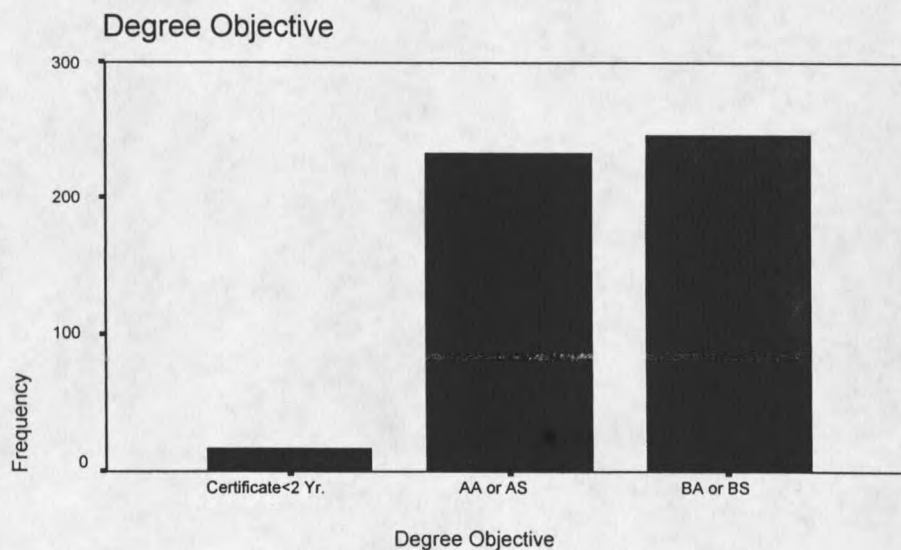
The distributions of the independent variables describing the following post-secondary characteristics is described in Tables 9 through 11 and Figures 16 through 18. These characteristics include: degree objective, type of post-secondary educational institution (PSE), and final cumulative grade point average (GPA).

Almost 50% of the participants chose to pursue a Bachelor of Arts (BA) or Bachelor of Science (BS) degree as illustrated in Table 9 and Figure 16. Forty-seven percent (47%) chose to pursue an Associate of Arts (AA) or Associate of Science (AS) degree, and 3% pursued a certificate of less than two years.

Table 9: Descriptive Statistic: Degree Objective

Degree Objective	Frequency	Percent	Cumulative Percent
Certificate < 2 yr.	16	3.2	3.2
AA or AS	233	47.1	50.3
BA or BS	246	49.7	100.0
Total	495	100.0	

Figure 16: Histogram: Degree Objective

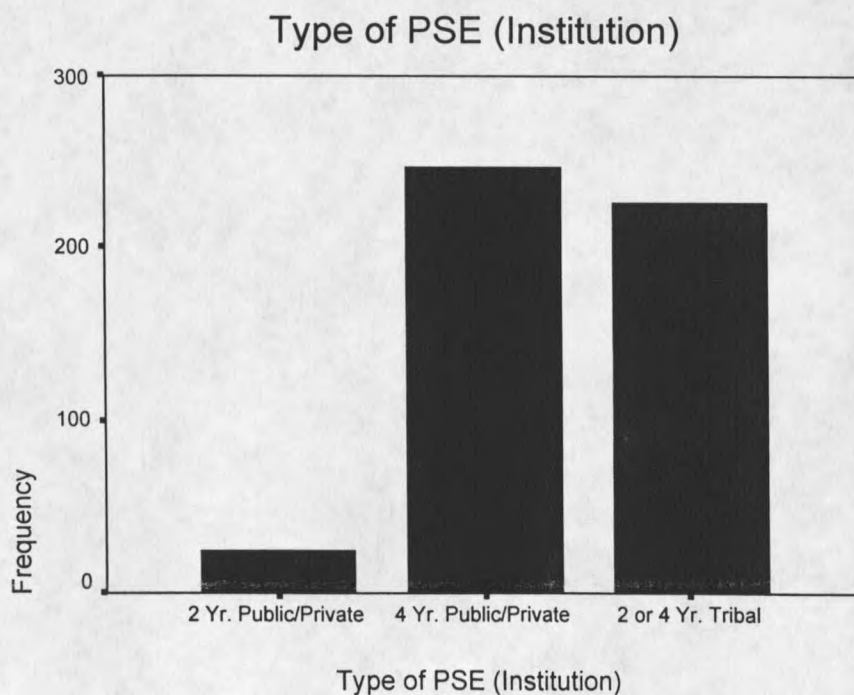


The type of institution participants attended is displayed in Table 10 and Figure 17. Nearly 50% of the participants attended a four-year public or private institution. Two or four year Tribal Colleges were attended by 45.5% of the participants, and nearly 5% of the veterans attended a two-year public or private institution.

Table 10: Descriptive Statistic: Type of PSE Institution Attended

Type of PSE (Institution)	FREQUENCY	PERCENT	Cumulative Percent
2 Yr. Public/Private	24	4.8	4.8
4 Yr. Public/Private	246	49.7	54.5
2 or 4 Yr. Tribal	225	45.5	100.0
Total	495	100.0	

Figure 17: Histogram: Type of PSE Institution Attended

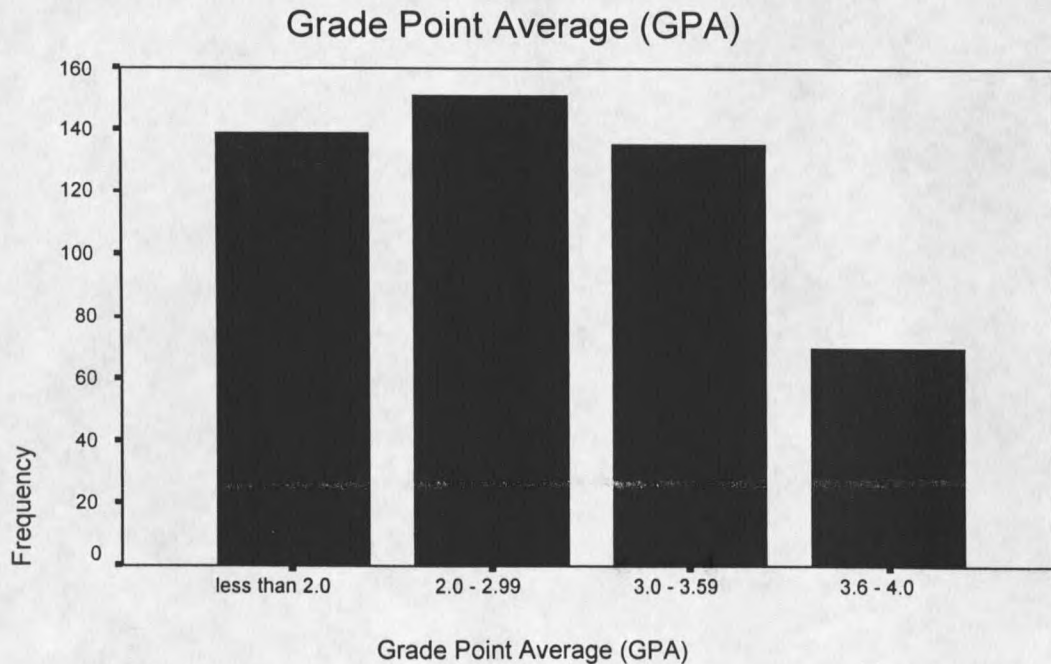


Participants' final cumulative grade point averages (GPA) are recorded in Table 11 and Figure 18. Within the sample, 27.5% of the participants had a GPA < 2.0. A GPA between 2.0 and 2.99 was held by 30.5% of the participants. Approximately 28% of the participants earned a GPA between 3.0 and 3.59, and 14% earned a GPA of 3.60 or above.

Table 11: Grade Point Average (GPA)

Grade Point Average (GPA)	Frequency	Percent	Cumulative Percent
less than 2.0	136	27.5	27.5
2.0 - 2.99	151	30.5	58.0
3.0 - 3.59	138	27.9	85.9
3.6 - 4.0	70	14.1	100.0
Total	495	100.0	

Figure 18: Histogram: Grade Point Average



Chi Square Analysis Results: Crosstabs & Charts: Graduation

Cross-tabulation was performed on the demographic data to determine, which independent variables were strongly associated with the dependent variables: graduation and positive persistence (i.e. currently enrolled with a GPA of 2.0 or greater). Each independent variable was crosstabulated with the binary dependent variable specified as a measure of academic success: graduation.

Pearson Chi-Square (χ^2) analysis was performed to determine whether variables were independent of graduation. Each Chi-Square test assumes that the variables are independent and tests to see if this assumption can be rejected, indicating that there is a significant relationship between the two variables. The degrees of freedom (df) for the statistic will be the # of subcategories for the independent variable + the # of subcategories for the dependent variable - 2. If the variables are independent, the cross-tabulation will produce expected cell counts similar to the observed cell counts. If a relationship exists between the variables, the observed and expected cell counts will be significantly different. A significance level of $\alpha = .05$ was used to determine statistical significance. An observed significance level $p < .05$ indicated that the observed and expected cell counts were significantly different, and therefore the variables are not independent. This implies that a significant relationship exists between the independent (i.e. explanatory) and the dependent (i.e. response) variables analyzed.

A Fisher's Exact test was performed in addition to a Chi-Square test when testing the relationship between some of the variables. The Fisher's Exact test differs from the Pearson Chi-Square test in that it can only perform calculations on a 2 by 2 table (i.e.

both variables must be binary, having only two possible responses). The resulting analysis differs in that it can test both 2-sided and 1-sided tests. A 2-sided test, as performed by the Chi-Square test, indicates whether a relationship exists between the variables. On the other hand, a 1-sided test indicates that there is a directional (positive or negative) association between the variables. Examining the counts and/or Bar Charts can assist greatly in determining the direction of a significant 1-sided test.

The cross-tabulation of age and graduation produced an expansion of a 9 by 2 table. Among the 134 participants in the 17 to 25 year age group as displayed in Table 12a: 120 of the participants had not graduated by Fall 1998 and 14 participants had graduated. The expected cell counts within the age group were approximately 107 and 27, respectively. The observed cell counts indicate that 10.4% of the participants between 17 and 25 years of age are graduates. Similarly, 14% of the graduates are between 17 and 25 years of age. If these percentages were used for statistical inference, one would consider the cells conditional probabilities. One would claim that:

- i.) The probability of graduating given that you are between 17 and 25 years of age is 10.4%, and
- ii.) The probability of being between 17 and 25 years of age given that you have graduated is 14%.

The observed and expected cell counts in the four age groups over 45 years of age were quite similar. However, a great deal of difference existed in the observed and expected cell counts in the younger age groups. the Pearson Chi-Square analysis as displayed in Table 12b, produced a large, statistically significant Chi-Square value of 20.822 with 8 degrees of freedom (df). The resulting significance level was $p = .008$.

Therefore, based upon the Chi-Square analysis, the researcher concluded that there was a statistically significant difference between the observed and expected cell counts. This implies that there is a significant relationship between a veteran's age and academic success through graduation. One may interpret this to mean that the independent variable of age is an explanatory variable for the response of academic success through graduation. Figure 19 graphically displays the significant relationship between these variables.

The independent variable of gender was crosstabulated with the dependent variable of graduation. The observed and expected cell counts were very similar as showed in Table 13a. Each expected cell count differed from the observed cell count by less than 1. Therefore, the Pearson Chi-Square analysis displayed in Table 13b produced a small Chi-Square value of .012 with 1 degree of freedom (df). The resulting significance level was $p = .912$. A Fisher's Exact test was also performed because both gender and graduation are binary. The results of the 1-sided test produced a significance level of $p = .525$, and the 2-sided test produced a significance level of the maximum of $p = 1.00$. These calculations indicate that gender and graduation are almost entirely independent. There appeared to be practically no relationship between gender, and academic success through graduation.

The expansion within both subcategories of gender, and the percentage of graduates is approximately equal to 20% as recorded in Table 13a and Figure 20.

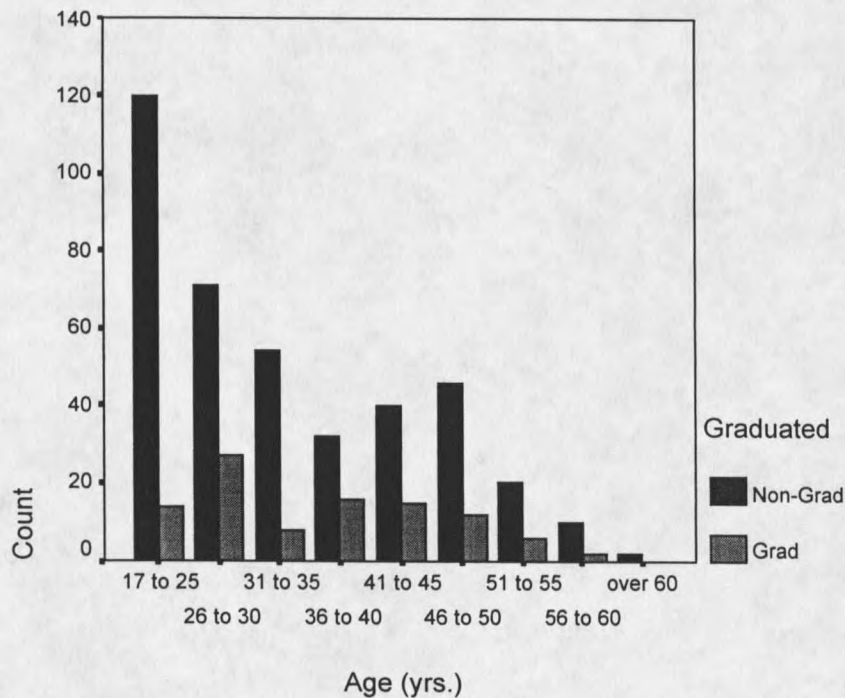
Table 12a: Age (yrs.) * Graduated (Y/N) Cross tabulation

Age (yrs.)	Statistics	Non-Grad	Grad	Total
17 to 25	Count	120	14	134
	Expected Count	106.9	27.1	134
	% within Age (yrs.)	89.6%	10.4%	100.0%
	% within Graduated (Y/N)	30.4%	14.0%	27.1%
26 to 30	Count	71	27	98
	Expected Count	78.2	19.8	98
	% within Age (yrs.)	72.4%	27.6%	100.0%
	% within Graduated (Y/N)	18.0%	27.0%	19.8%
31 to 35	Count	54	8	62
	Expected Count	49.5	12.5	62
	% within Age (yrs.)	87.1%	12.9%	100.0%
	% within Graduated (Y/N)	13.7%	8.0%	12.5%
36 to 40	Count	32	16	48
	Expected Count	38.3	9.7	48
	% within Age (yrs.)	66.7%	33.3%	100.0%
	% within Graduated (Y/N)	8.1%	16.0%	9.7%
41 to 45	Count	40	15	55
	Expected Count	43.9	11.1	55
	% within Age (yrs.)	72.7%	27.3%	100.0%
	% within Graduated (Y/N)	10.1%	15.0%	11.1%
46 to 50	Count	46	12	58
	Expected Count	46.3	11.7	58
	% within Age (yrs.)	79.3%	20.7%	100.0%
	% within Graduated (Y/N)	11.6%	12.0%	11.7%
51 to 55	Count	20	6	26
	Expected Count	20.7	5.3	26
	% within Age (yrs.)	76.9%	23.1%	100.0%
	% within Graduated (Y/N)	5.1%	6.0%	5.3%
56 to 60	Count	10	2	12
	Expected Count	9.6	2.4	12
	% within Age (yrs.)	83.3%	16.7%	100%
	% within Graduated (Y/N)	2.5%	2.0%	2.4%
OVER 60	Count	2	0	2
	Expected Count	1.6	.4	2
	% within Age (yrs.)	100.0%	.0%	100.0%
	% within Graduated (Y/N)	.5%	.0%	.4%
TOTAL	Count	395	100	495
	Expected Count	395	100	495
	% within Age (yrs.)	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 12b: Chi-Square Test of Age vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.822 ^a	8	.008

a. 3 cells (16.7%) have expected count less than 5. The minimum expected count is .40.

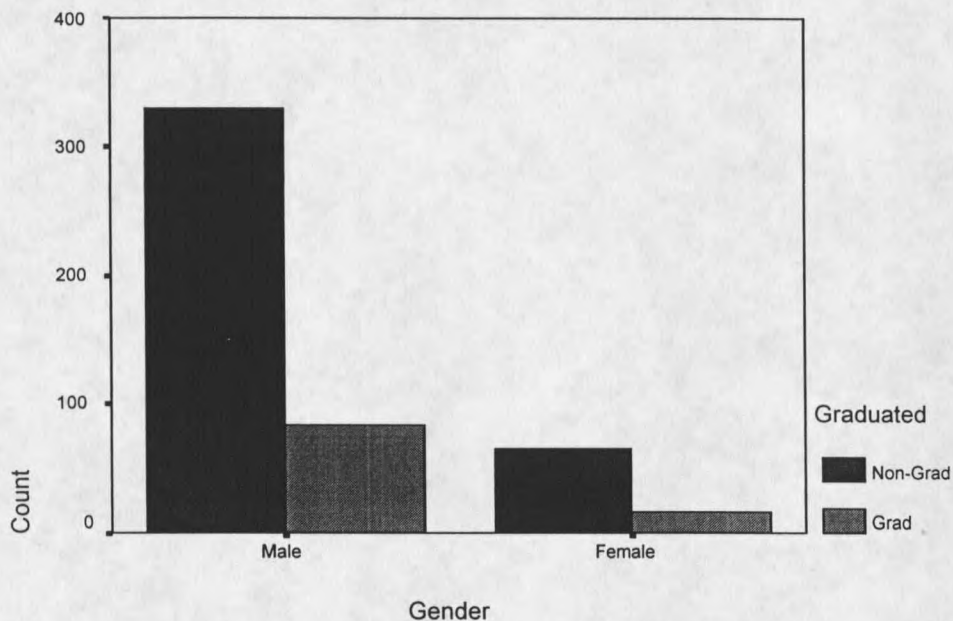
Figure 19: Histogram: Age Interval of Participants**Table 13a:** Gender * Graduated (Y/N) Cross tabulation

Gender	Statistics	Non-Grad	Grad	Total
Male	Count	330	84	414
	Expected Count	330.4	83.6	414
	% within Gender	79.7%	20.3%	100.0%
	% within Graduated (Y/N)	83.5%	84.0%	83.6%
Female	Count	65	16	81
	Expected Count	64.6	16.4	81
	% within Gender	80.2%	19.8%	100.0%
	% within Graduated (Y/N)	16.5%	16.0%	16.4%
Total	Count	395	100	495
	Expected Count	395.0	100.0	495
	% within Gender	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 13b: Significance tests of Gender vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.012 ^b	1	.912		
Fisher's Exact Test				1.000	.525

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.36.

Figure 20: Histogram: Gender/Graduated

The independent variable of marital status was crosstabulated with the dependent variable of graduation. A similar observed and expected cell counts are displayed in Table 14a. Each expected cell count differed from the observed cell count by no more than 4. The sub-categories of married, divorced, and separated produced expected cell counts that differed from the expected count by 2.5 or less. As a result, the Pearson Chi-Square analysis displayed in Table 14b produced a small Chi-Square value of .887 with 3 degrees of freedom (df). The resulting significance level was $p = .828$. These calculations indicate that marital status and graduation appear to be independent. There does not appear to be a relationship between a veteran's marital status and their academic

success through graduation. The conclusion that there is little or no relationship between these variables is graphically displayed in Figure 21.

Table 14a: Marital Status * Graduated (Y/N) Crosstabulation

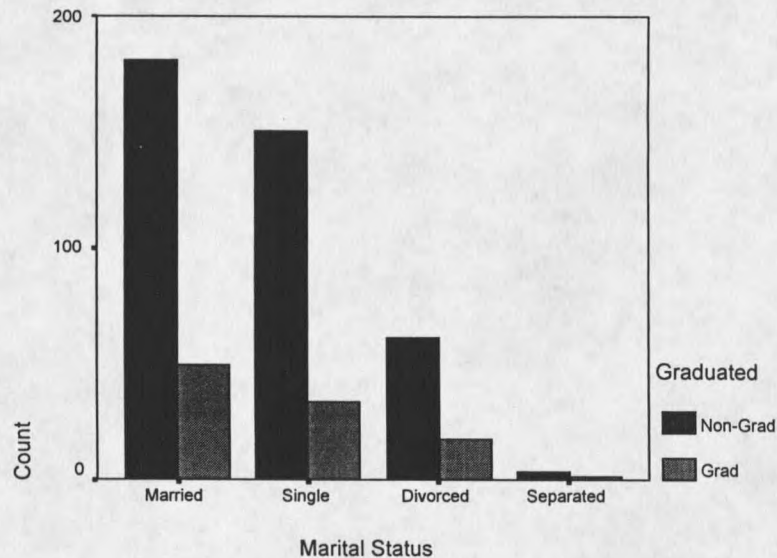
Marital Status	Statistics	Non-Grad	Grad	Total
Married	Count	181	49	230
	Expected Count	183.5	46.5	230
	% within Marital Status	78.7%	21.3%	100.0%
	% within Graduated (Y/N)	45.8%	49.0%	46.5%
Single	Count	150	33	183
	Expected Count	146	37	183
	% within Marital Status	82.0%	18.0%	100.0%
	% within Graduated (Y/N)	38.0%	33.0%	37.0%
Divorced	Count	61	17	78
	Expected Count	62.2	15.8	78
	% within Marital Status	78.2%	21.8%	100.0%
	% within Graduated (Y/N)	15.4%	17.0%	15.8%
Separated	Count	3	1	4
	Expected Count	3.2	.8	4
	% within Marital Status	75.0%	25.0%	100.0%
	% within Graduated (Y/N)	.8%	1.0%	.8%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within Marital Status	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 14b: Chi-Square Test for Marital Status vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.887 ^a	3	.828

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .81.

The independent variable of the VUB participant's prior education level was crosstabulated with the dependent variable of graduation. The observed and expected cell counts differed greatly as illustrated in Table 15a. The expected cell counts differed from the observed cell counts by 14 in each of the binary cross tabulations. The project participant's prior education level became a binary independent variable because it is

Figure 21: Histogram: Marital Status/Graduated

necessary for an individual to be a high school (HS) graduate or earn a GED diploma before attending a post-secondary institution. Therefore, each participant had either: i.) earned a high school (HS) or GED diploma, or ii.) attended college previously.

The Pearson Chi-Square analysis displayed in Table 15b produced a statistically significant Chi-Square value of 10.063 with 1 degree of freedom (df). The resulting significance level was $p = .002$. Therefore, based upon the Chi-Square analysis, the researcher concluded that there was a statistically significant difference between the observed and expected cell counts. This implies that there was a significant relationship between a veteran's prior education level and academic success through graduation. One may interpret this to mean that the independent variable: prior education level is an explanatory variable for the response: academic success through graduation.

The Fisher's Exact Test produced a statistically significant two-sided significance level of $p = .002$ and a one-sided significance level of $p = .001$. The cell counts among

the crosstabulations and Figure 22 display that, the likelihood of graduation is greater for participants with prior post-secondary educational credit.

Table 15a: Prior Education Level * Graduated (Y/N) Crosstabulation

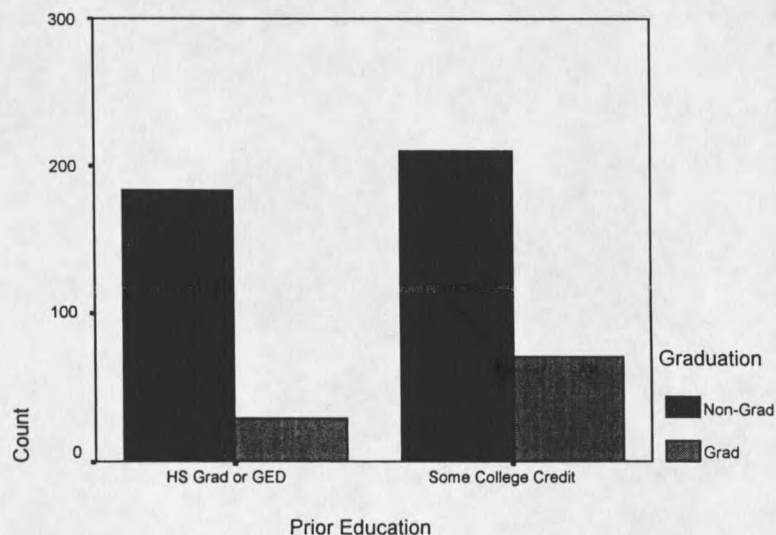
Prior Education	Statistics	Non-Grad	Grad	Total
HS Grad or GED	Count	184	29	213
	Expected Count	170	43	213
	% within Prior Education	86.4%	13.6%	100.0%
	% within Graduated (Y/N)	46.6%	29.0%	43.0%
Some College Credit	Count	211	71	282
	Expected Count	225	57	282
	% within Prior Education	74.8%	25.2%	100.0%
	% within Graduated (Y/N)	53.4%	71.0%	57.0%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within Prior Education	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 15b: Significance tests of Prior Education Level vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	10.063 ^b	1	.002		
Fisher's Exact Test		1		.002	.001

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 43.03.

Figure 22: Histogram: Prior Education Level/Graduated



The independent variable of ethnic origin was crosstabulated with the dependent variable of graduation. The observed and expected cell counts were quite similar as displayed in Table 16a. Each expected cell count differed from the observed cell count by less than 4. Since 46.3 % of the participants were American Indian or Native Alaskan, and precisely 100 of the 495 participants were graduates, the expected count for the number of graduates who were American Indian or Native Alaskan was calculated to be 46.3. The observed count was found to be 50 (which is exactly 50% of the graduates in the sample). Similarly, 51.1% of the participants were white, causing the expected cell count for white graduates to be 51.1. The number of white graduates observed within the sample was found to be 48. The observed and expected counts are very small in cells related to the ethnic groups: Asian/Pacific Islander, Black, and Hispanic. These three sub-categories accounted for only 2.6% of the Montana VUB project participants. Therefore, the three categories merely totaled 2.6 as the expected count for graduates. The total observed number of graduates among the 13 veterans within these categories was 2. The Pearson Chi-Square analysis displayed in Table 16b produced a Chi-Square value of 2.771 with 4 degrees of freedom (df). The resulting significance level was $p = .597$. These calculations indicate that ethnic origin and graduation appear to be independent. Figure 23 graphically reinforces the conclusion that there is little or no relationship between these variables.

Table 16a: Ethnic Origin * Graduated (Y/N) Cross tabulation

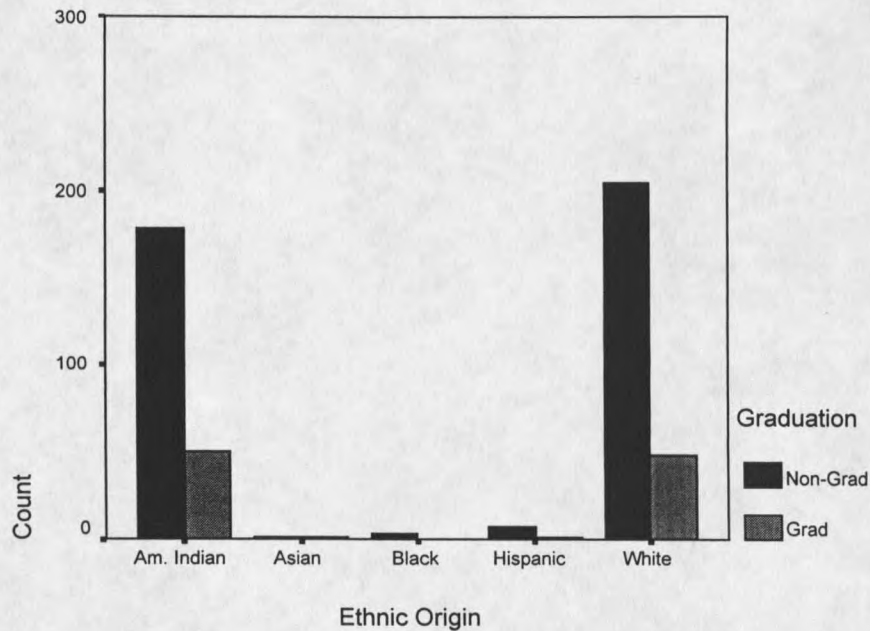
Ethnic Origin	Statistics	Non-Grad	Grad	Total
Am. Indian/Native Alaskan	Count	179	50	229
	Expected Count	182.7	46.3	229
	% within Ethnic Origin	78.2%	21.8%	100.0%
	% within Graduated (Y/N)	45.3%	50.0%	46.3%
Asian/ Pacific Islander	Count	1	1	2
	Expected Count	1.6	.4	2
	% within Ethnic Origin	50.0%	50.0%	100.0%
	% within Graduated (Y/N)	.3%	1.0%	.4%
Black	Count	3	0	3
	Expected Count	2.4	.6	3
	% within Ethnic Origin	100.0%	.0%	100.0%
	% within Graduated (Y/N)	.8%	.0%	.6%
Hispanic	Count	7	1	8
	Expected Count	6.4	1.6	8
	% within Ethnic Origin	87.5%	12.5%	100.0%
	% within Graduated (Y/N)	1.8%	1.0%	1.6%
White	Count	205	48	253
	Expected Count	201.9	51.1	253
	% within Ethnic Origin	81.0%	19.0%	100.0%
	% within Graduated (Y/N)	51.9%	48.0%	51.1%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within Ethnic Origin	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 16b: Chi-Square Test of Ethnic Origin vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.771 ^a	4	.597

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is .40.

The independent variable of eligibility for VA benefits was crosstabulated with the dependent variable of graduation. The observed and expected cell counts for the binary variables differed by 6.9 in each case as displayed. Table 17a. The expected counts were 6.9 smaller than the observed counts both for non-graduates eligible for VA benefits and graduates non-eligible for VA benefits. The Pearson Chi-Square analysis

Figure 23: Histogram: Ethnic-Origin-Race/Graduated

displayed in Table 17b produced a Chi-Square value of 2.403 with 1 degree of freedom.

The resulting significance level was $p = .121$. The Fisher's Exact test produced a 2-sided significance level of $p = .145$ and a 1-sided significance level of $p = .075$.

Based upon these calculations, we cannot claim with certainty that the observed and expected cell counts are significantly different because in all cases $p > \alpha$ (i.e. $p > .05$). However, based upon the 1-sided significance level of $p = .075$, the cell counts, and the relationship between the variables which is displayed in Figure 24, there appears to be a mild relationship between the variables. Academic success through graduation did appear to be slightly higher among participants who were non-eligible for VA benefits through the GI Bill.

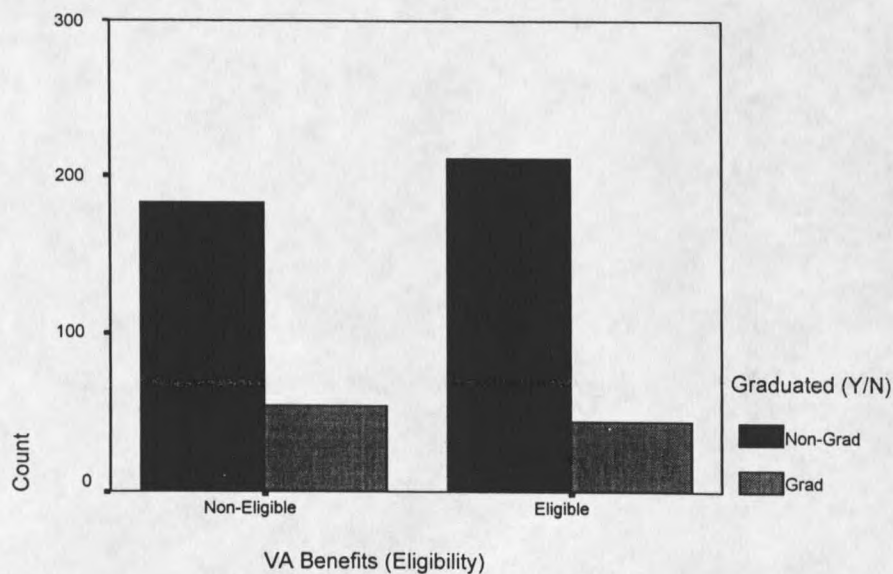
Table 17a: VA Benefits (Eligibility) * Graduated (Y/N) Crosstabulation

VA Benefits (Eligibility)	Statistics	Non-Grad	Grad	Total
Non-Eligible	Count	183	55	238
	Expected Count	189.9	48.1	238
	% within VA Benefits (Eligibility)	76.9%	23.1%	100.0%
	% within Graduated (Y/N)	46.3%	55.0%	48.1%
Eligible	Count	212	45	257
	Expected Count	205.1	51.9	257
	% within VA Benefits (Eligibility)	82.5%	17.5%	100.0%
	% within Graduated (Y/N)	53.7%	45.0%	51.9%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within VA Benefits (Eligibility)	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 17b: Significance tests of VA Benefit Eligibility vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.403 ^b	1	.121		
Fisher's Exact Test				.145	.075

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 48.08.

Figure 24: Histogram: GI Bill Eligibility/Graduated

The independent variable of the prior year's income reported by project participants was crosstabulated with the dependent variable of graduation.

A similar observed and expected cell counts are displayed in Table 18a. Each expected cell count differed from the observed cell count by between .2 and 5. The expected count for the number of graduates was slightly greater than the observed count in the 4 income intervals under \$15,000, as well as the maximum income interval of over \$30,000. The expected count was slightly lower than the observed count for the three remaining intervals between \$15,000 and \$30,000.

The cross-tabulation of the eight sub-categories of income and graduation produced the Pearson Chi-Square analysis displayed in Table 18b indicating a Chi-Square value of 5.398 with 7 degrees of freedom (df). The resulting significance level was $p = .612$. These calculations indicated that there does not appear to be a relationship between a veteran's prior year's income and graduation because the variables appear to be independent. The insignificant relationship observed in this study is graphically displayed in Figure 25.

The independent variable of the VUB participant's degree objective was crosstabulated with the dependent variable of graduation. The observed and expected cell counts differed greatly as illustrated in Table 19a. The expected cell counts differed from the observed cell counts by between 8.8 and 22.7. One might expect that academic success through graduation would be largely dependent upon the participant's degree objective. As of the Fall semester 1998, 75% of those pursuing a less than two-year certificate had graduated, 26.2% of those pursuing an Associate of Arts (AA) or

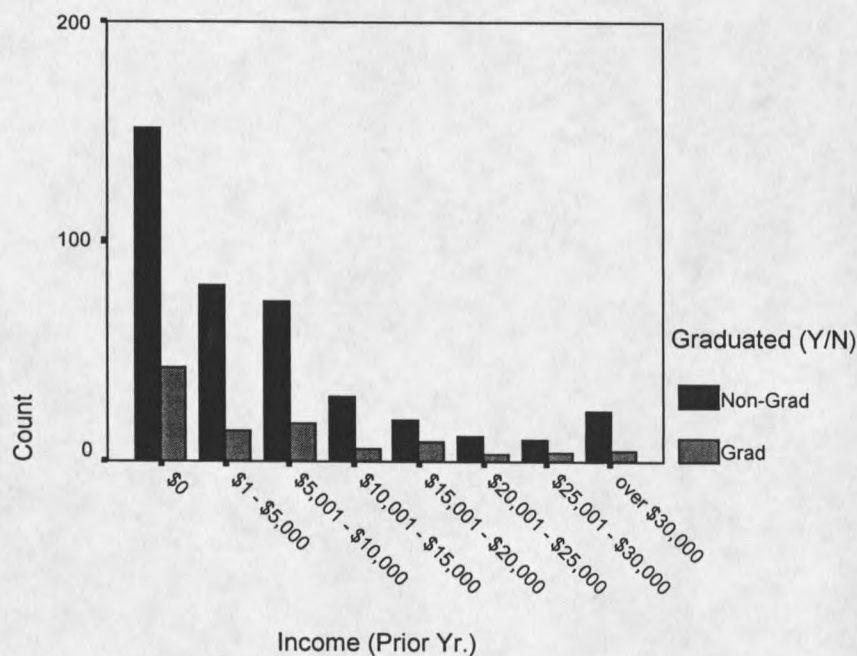
Table 18a: Income (Prior Yr.) * Graduated (Y/N) Crosstabulation

Income (Prior Yr.)	Statistics	Non-Grad	Grad	Total
\$0	Count	151	42	193
	Expected Count	154	39	193
	% within Income (Prior Yr.)	78.2%	21.8%	100.0%
	% within Graduated (Y/N)	38.2%	42.0%	39.0%
\$1 - \$5,000	Count	80	14	94
	Expected Count	75	19	94
	% within Income (Prior Yr.)	85.1%	14.9%	100.0%
	% within Graduated (Y/N)	20.3%	14.0%	19.0%
\$5,001 - \$10,000	Count	72	17	89
	Expected Count	71	18	89
	% within Income (Prior Yr.)	80.9%	19.1%	100.0%
	% within Graduated (Y/N)	18.2%	17.0%	18.0%
\$10,001 - \$15,000	Count	29	6	35
	Expected Count	27.9	7.1	35
	% within Income (Prior Yr.)	82.9%	17.1%	100.0%
	% within Graduated (Y/N)	7.3%	6%	7.1%
\$15,001 - \$20,000	Count	19	9	28
	Expected Count	22.3	5.7	28
	% within Income (Prior Yr.)	67.9%	32.1%	100.0%
	% within Graduated (Y/N)	4.8%	9.0%	5.7%
\$20,001 - \$25,000	Count	11	3	14
	Expected Count	11.2	2.8	14
	% within Income (Prior Yr.)	78.6%	21.4%	100.0%
	% within Graduated (Y/N)	2.8%	3.0%	2.8%
\$25,001 - \$30,000	Count	10	4	14
	Expected Count	11.2	2.8	14
	% within Income (Prior Yr.)	71.4%	28.6%	100.0%
	% within Graduated (Y/N)	2.5%	4.0%	2.8%
over \$30,000	Count	23	5	28
	Expected Count	22.3	5.7	28
	% within Income (Prior Yr.)	82.1%	17.9%	100.0%
	% within Graduated (Y/N)	5.8%	5.0%	5.7%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within Income (Prior Yr.)	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 18b: Chi-Square Test of Prior Year's Income vs. Graduation (Y/N)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.398 ^a	7	.612

a. 2 cells (12.5%) have expected count less than 5. The minimum expected count is 2.83.

Figure 25: Histogram: Prior Year Income/Graduated

Associate of Science (AS) degree had graduated, and only 11% of those pursuing a Bachelor of Arts (BA) or Bachelor of Science (BS) degree had graduated. The Pearson Chi-Square analysis displayed in Table 19b produced a very statistically significant Chi-Square value of 47.959 with 2 degrees of freedom (df). The resulting significance level was approximately $p = .000$. Therefore, based upon the Chi-Square analysis, we can be nearly certain that there was a statistically significant difference between the observed and expected cell counts. This implies that we can be nearly certain that the variables are not independent because there is a very significant relationship between a veteran's

degree objective and academic success through graduation. One may interpret this to mean that the independent variable: the veteran's degree objective is an explanatory variable for the response: academic success through graduation. The significant relationship observed in the study is graphically displayed in Figure 26.

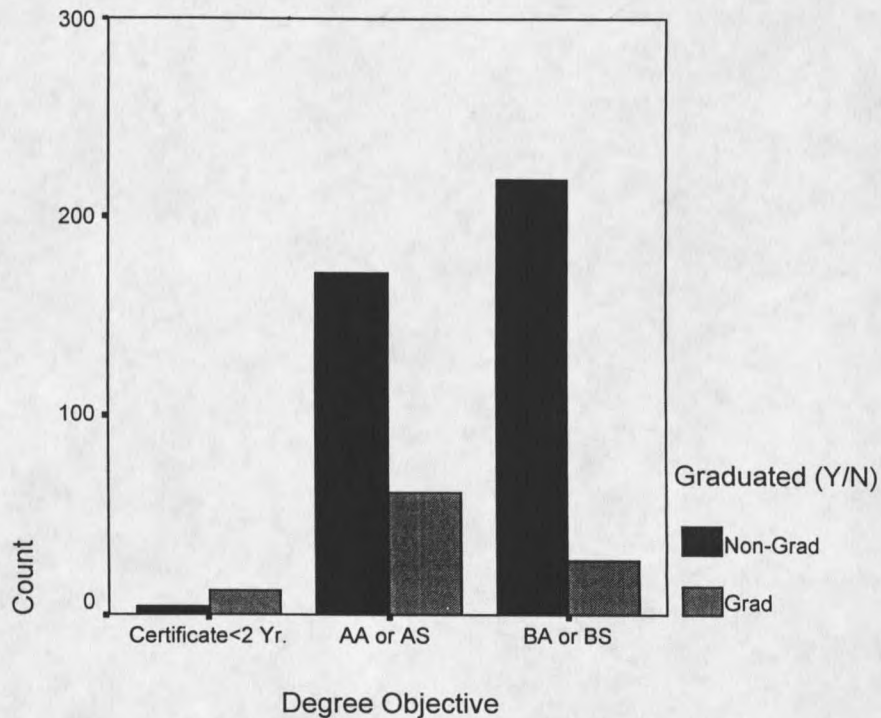
Table 19a: Degree Objective * Graduated (Y/N) Crosstabulation

Degree Objective	Statistics	Non-Grad	Grad	Total
Certificate<2 Yr.	Count	4	12	16
	Expected Count	12.8	3.2	16
	% within Degree Objective	25.0%	75.0%	100.0%
	% within Graduated (Y/N)	1.0%	12.0%	3.2%
AA or AS	Count	172	61	233
	Expected Count	185.9	47.1	233
	% within Degree Objective	73.8%	26.2%	100.0%
	% within Graduated (Y/N)	43.5%	61.0%	47.1%
BA or BS	Count	219	27	246
	Expected Count	196.3	49.7	246
	% within Degree Objective	89.0%	11.0%	100.0%
	% within Graduated (Y/N)	55.4%	27%	49.7%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within Degree Objective	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 19b: Chi-Square Test of Degree Objective vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.959 ^a	2	.000

a. 1 cell (16.7%) has an expected count less than 5. The minimum expected count is 3.23.

Figure 26: Histogram: Degree Objective/Graduated

The independent variable of the type of post-secondary education (PSE) (i.e. type of institution) the VUB participant had attended or was attending was crosstabulated with the dependent variable of graduation. The observed and expected cell counts differed significantly as displayed in Table 20a. The expected cell counts were off from the observed cell counts by between 5.5 and 13.7. The observed count was higher than expected in both:

- i. 2 year public or private institutions, and
- ii. 2 or 4-year tribal colleges.

The observed cell count in four-year public or private institutions was 13.7 lower than the expected count. This follows the findings regarding the statistical significance of the participant's degree objective. The percentage of graduates was highest (75%)

among the veterans who were pursuing less than two-year certificate. Therefore, they were not attending a four-year public or private institution. The Pearson Chi-Square analysis displayed in Table 20b produced a very statistically significant Chi-Square value of 22.753 with 2 degrees of freedom (df). The resulting significance level was approximately $p = .000$. Therefore, based upon the Chi-Square analysis, we can be nearly certain that there was a significant difference between the observed and expected cell counts. This implies that the variables are not independent because there is a very significant relationship between the type of institution attended and academic success through graduation. One may interpret this to mean that the independent variable: the type of PSE attended is an explanatory variable for the response: academic success through graduation. The significant relationship observed in the study is graphically displayed in Figure 27.

The independent variable of the VUB participant's cumulative grade point average (GPA) was crosstabulated with the dependent variable of graduation. The observed and expected cell counts differed greatly as displayed in Table 21a. No graduates had a $GPA < 2.0$, but the expected cell count for the number of graduates was 27.5. The observed count was higher than expected for the three remaining GPA intervals in which the veteran's GPA was at least 2.0.

The Pearson Chi-Square analysis displayed in Table 21b produced a very statistically significant Chi-Square value of 52.113 with 3 degrees of freedom (df). The resulting significance level was approximately $p = .000$. Therefore, based upon the Chi-Square analysis, we can be nearly certain that there was a statistically significant

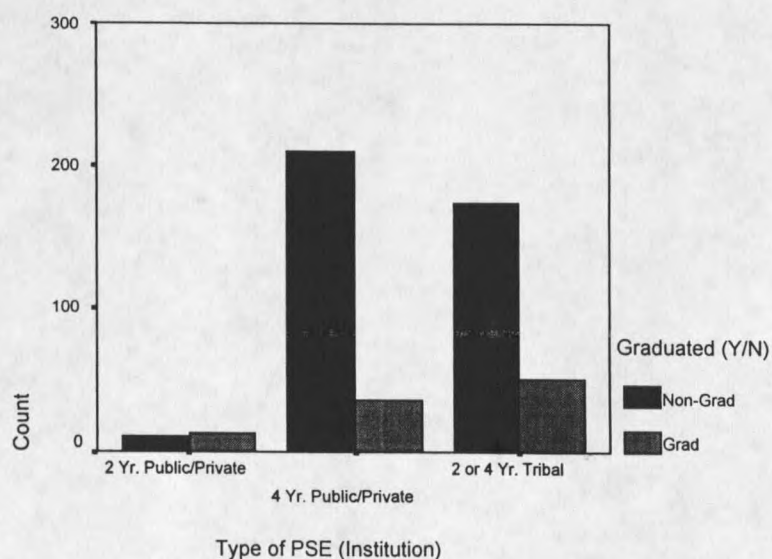
Table 20a: Type of PSE (Institution) * Graduated (Y/N) Crosstabulation

Type of PSE (Institution)	Statistics	Non-Grad	Grad	Total
2 Yr. Public/Private	Count	11	13	24
	Expected Count	19.2	4.8	24
	% within Type of PSE	45.8%	54.2%	100.0%
	% within Graduated (Y/N)	2.8%	13.0%	4.8%
4 Yr. Public/Private	Count	210	36	246
	Expected Count	196.3	49.7	246
	% within Type of PSE	85.4%	14.6%	100.0%
	% within Graduated (Y/N)	53.2%	36.0%	49.7%
2 or 4 Yr. Tribal	Count	174	51	225
	Expected Count	179.5	45.5	225
	% within Type of PSE	77.3%	22.7%	100.0%
	% within Graduated (Y/N)	44.1%	51.0%	45.5%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within Type of PSE	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 20b: Chi-Square Test of Type of PSE (Institution) vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.753 ^a	2	.000

a. 1 cell (16.7%) has an expected count less than 5. The minimum expected count is 4.85.

Figure 27: Histogram: Type PSE Institution Attended/Graduated

difference between the observed and expected cell counts. This implies that the variables are not independent because, as one might expect, there is a very significant relationship between a veteran's GPA and academic success through graduation. One may interpret this to mean that the independent variable: the veteran's GPA is an explanatory variable for the response: academic success through graduation. The significant relationship observed between these variables is graphically displayed in Figure 28.

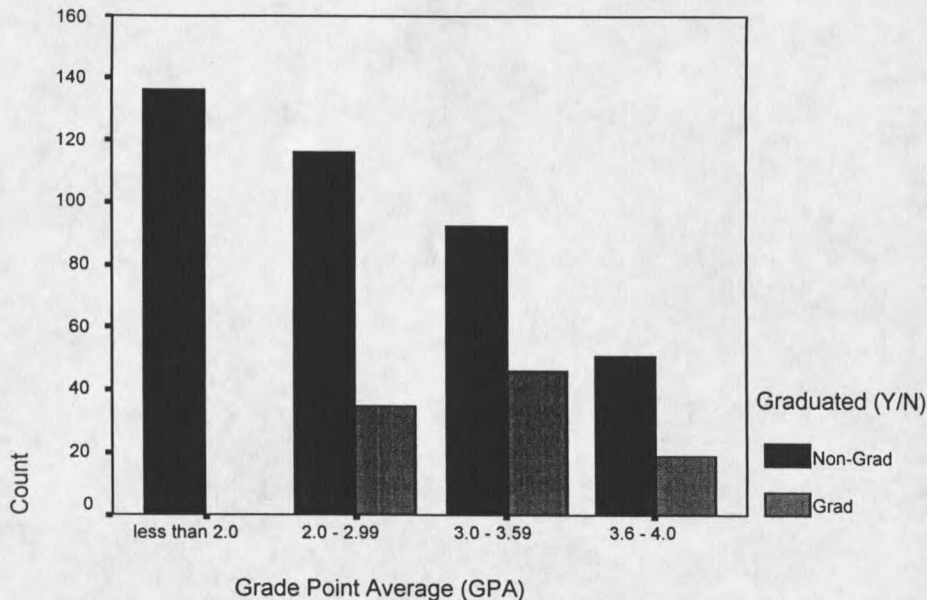
Table 21a: Grade Point Average (GPA) * Graduated (Y/N) Crosstabulation

Grade Point Average (GPA)	Statistics	Non-Grad	Grad	Total
less than 2.0	Count	136	0	136
	Expected Count	108.5	27.5	136
	% within GPA	100.0%	.0%	100.0%
	% within Graduated (Y/N)	34.4%	.0%	27.5%
2.0 - 2.99	Count	116	35	151
	Expected Count	120.5	30.5	151
	% within GPA	76.8%	23.2%	100.0%
	% within Graduated (Y/N)	29.4%	35.0%	30.5%
3.0 - 3.59	Count	92	46	138
	Expected Count	110.1	27.9	138
	% within GPA	66.7%	33.3%	100.0%
	% within Graduated (Y/N)	23.3%	46%	27.9%
3.6 - 4.0	Count	51	19	70
	Expected Count	55.9	14.1	70
	% within GPA	72.9%	27.1%	100.0%
	% within Graduated (Y/N)	12.9%	19.0%	14.1%
Total	Count	395	100	495
	Expected Count	395	100	495
	% within GPA	79.8%	20.2%	100.0%
	% within Graduated (Y/N)	100.0%	100.0%	100.0%

Table 21b: Chi-Square Test of GPA vs. Graduated (Y/N)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	52.113 ^a	3	.000

a. 0 cells (.0%) have expected counts less than 5. The minimum expected count is 14.14.

Figure 28: Histogram: GPA/Graduated

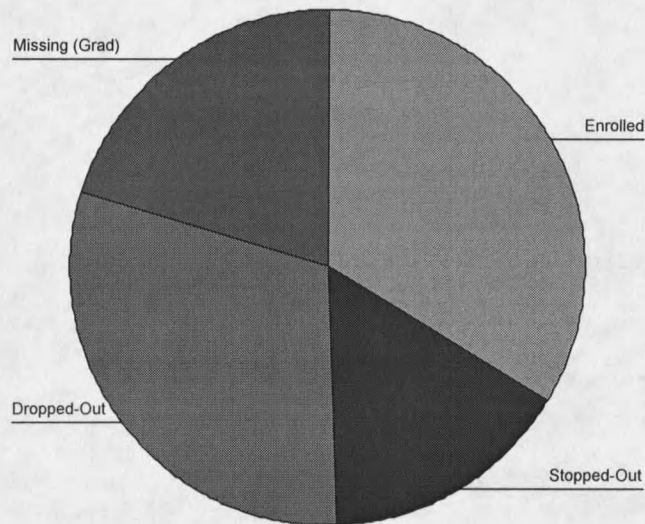
Chi Square Analysis Results: Crosstabs & Charts: Positive Persistence

Independent variables were also crosstabulated with the dependent variable: non-graduate positive persistence. Non-graduate positive persistence was a measure of successful retention, indicating that in Fall semester 1998 the participant was currently enrolled with a cumulative GPA of 2.0 or better. Because GPA is a descriptor of non-graduate positive persistence, it was not crosstabulated with this dependent variable to test for independence. The valid cases for this portion of the study were the 395 Montana VUB project participants who had not graduated as of the completion of the Spring semester 1998. This is displayed in Table 22. The educational attainment status (tracking status) of the participants is displayed as a pie chart in Figure 29. The missing cases were the 100 graduates in the project.

Table 22: Independent Variables vs. Non-Grad/Pos. Persistence Case Processing Summary

Valid Cases: Non-Graduates		Missing Cases: Graduates		Total	
N	Percent	N	Percent	N	Percent
395	79.8%	100	20.2%	495	100.0%

Figure 29: Educational Attainment Status Pie Chart



The status of the 395 non-graduates upon the completion of the Fall semester 1998 is displayed in Table 23. The three cells displaying the counts for non-graduates who were currently enrolled with GPAs of at least 2.0 present the counts for non-graduate positive persistence. The cells are shaded and the counts of 51, 51, and 29 are bolded to strikingly display the counts that were found for the number of participants with GPAs in the intervals 2.0 to 2.99, 3.0 to 3.59, and 3.6 to 4.0, respectively. The three cell counts indicated that a total of 131 non-graduate participants achieved academic success through positive persistence. The remaining 264 non-graduates were *not* practicing positive persistence. Among these VUB participants, 35 were enrolled with a

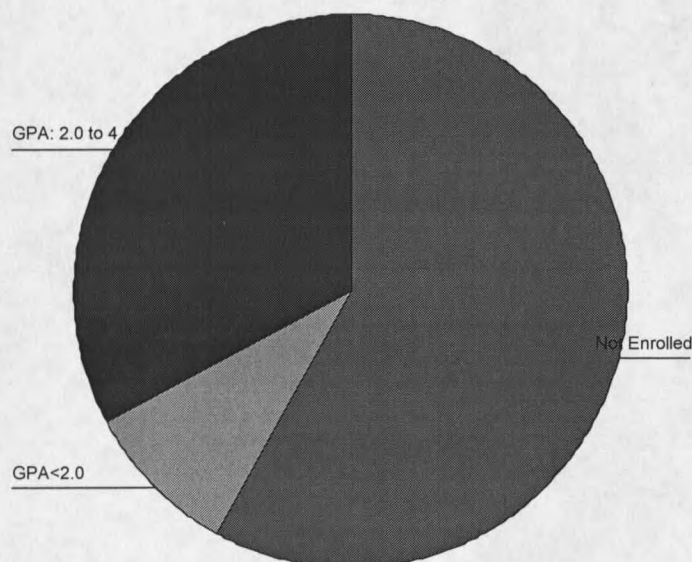
GPA less than 2.0, 79 had stopped-out (i.e. not attended for less than 2 years), and 150 had dropped-out (i.e. not attended for at least 2 years). The non-graduates' levels of positive persistence are graphically displayed in Figure 30. This pie chart displays the proportion of non-graduates with: *i*) a GPA less than 2.0, *ii*) a GPA of at least 2.0 (i.e. 2.0 to 4.0), or *iii*) not currently enrolled (i.e. stopped-out or dropped-out).

Table 23: Non-Graduate Educational Attainment Status * Grade Point Average (GPA) Crosstabulation

Non-Graduate Tracking Status	Grade Point Average (GPA)				Total
	less than 2.0	2.0 - 2.99	3.0 - 3.59	3.6 - 4.0	
Enrolled	35	51*	51*	29*	166
Stopped-Out	33	21	16	9	79
Dropped-Out	68	44	25	13	150
Total	136	116	102	51	395

- The shaded cells with bolded cell counts indicate counts for Non-Graduate Positive Persistence

Figure 30: GPA* Non-Graduate Educational Attainment Status Pie Chart



Within the following cross-tabulations, non-graduates with positive persistence are labeled "Successful Non-Grad". Pearson Chi-Square (χ^2) analysis was performed to

determine whether variables were independent of the binary dependent variable: non-graduate positive persistence. A significance level of $\alpha = .05$ was used to determine statistical significance. An observed significance level $p < .05$ indicated that the observed and expected cell counts were significantly different, and therefore the variables are not independent.

The cross-tabulation of age and non-graduate positive persistence is displayed in Table 24a. The number of successful non-graduates was less than the number of unsuccessful non-graduates in all nine age groups specified. The percentage of successful non-graduates ranged from 0% between the two non-graduates over 60 years of age to 45% among the 20 non-graduates between 51 and 55 years of age. Overall, 32.9% of the non- graduates were successful with positive persistence. The observed and expected cell counts within the nine age groups did not differ greatly. The counts differed by no more than 5.2. The observed cell counts slightly exceeded the expected cell counts within four of the age groups, and were slightly smaller than the expected counts in five of the age groups.

As a result, the Pearson Chi-Square analysis displayed in Table 24b produced a rather small Chi-Square value of 5.918 with 8 degrees of freedom (df). The resulting significance level was $p = .656$. Therefore, based upon the Chi-Square analysis, there was not a significant difference between the observed and expected cell counts. This implies that a veteran's age and academic success through non-graduate positive persistence are independent. The insignificant relationship between these variables is displayed in Figure 31.

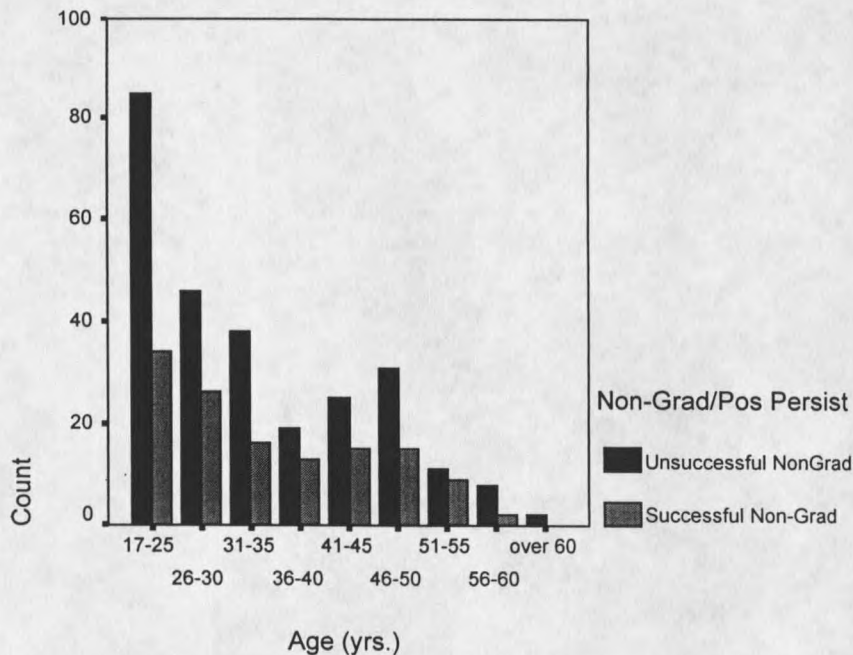
Table 24a: Age (yrs.) * Non-Grad/Pos. Persistence Crosstabulation

		Non-Grad/Positive Persistence		
Age (yrs.)	Statistics	Unsuccessful Non-Grad	Successful Non-Grad	Total
17-25	Count	85	34	119
	Expected Count	79.8	39.2	119
	% within Age (yrs.)	71.4%	28.6%	100.0%
	% within Non-Grad/Pos. Persistence	32.1%	26.2%	30.1%
26-30	Count	46	26	72
	Expected Count	48.3	23.7	72
	% within Age (yrs.)	63.9%	36.1%	100.0%
	% within Non-Grad/Pos. Persistence	17.4%	20.0%	18.2%
31-35	Count	38	16	54
	Expected Count	36.2	17.8	54
	% within Age (yrs.)	70.4%	29.6%	100.0%
	% within Non-Grad/Pos. Persistence	14.3%	12.3%	13.7%
36-40	Count	19	13	32
	Expected Count	21.5	10.5	32
	% within Age (yrs.)	59.4%	40.6%	100.0%
	% within Non-Grad/Pos. Persistence	7.2%	10.0%	8.1%
41-45	Count	25	15	40
	Expected Count	26.8	13.2	40
	% within Age (yrs.)	62.5%	37.5%	100.0%
	% within Non-Grad/Pos. Persistence	9.4%	11.5%	10.1%
46-50	Count	31	15	46
	Expected Count	30.9	15.1	46
	% within Age (yrs.)	67.4%	32.6%	100.0%
	% within Non-Grad/Pos. Persistence	11.7%	11.5%	11.6%
51-55	Count	11	9	20
	Expected Count	13.4	6.6	20
	% within Age (yrs.)	55.0%	45.0%	100.0%
	% within Non-Grad/Pos. Persistence	4.2%	6.9%	5.1%
56-60	Count	8	2	10
	Expected Count	6.7	3.3	10
	% within Age (yrs.)	80.0%	20.0%	100.0%
	% within Non-Grad/Pos. Persistence	3%	1.5%	2.5%
over 60	Count	2	0	2
	Expected Count	1.3	.7	2
	% within Age (yrs.)	100.0%	.0%	100.0%
	% within Non-Grad/Pos. Persistence	.8%	.0%	.5%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within Age (yrs.)	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 24b: Chi-Square Test of Age vs. Non-Grad/Positive Persistence

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.918 ^a	8	.656

a. 3 cells (16.7%) have expected count less than 5. The minimum expected count is .66.

Figure 31: Histogram: Age Interval/Non-Grad/Positive Persistence

The independent variable of gender was crosstabulated with the dependent variable of non-graduate positive persistence. Within the sample, 31.8% of the male non-graduates and 38.5% of the female non-graduates practiced positive persistence. The similar observed and expected cell counts differed by 3.6 in each case as displayed in Table 25a.

The resulting Pearson Chi-Square analysis displayed in Table 25b produced a Chi-Square value of 1.085 with 1 degree of freedom (df). The resulting significance level was $p = .297$. A Fisher's Exact test was also performed because both gender and non-graduate positive persistence are binary. The result of the 1-sided test provided a

significance level of $p = .184$, and a 2-sided significance level of $p = .314$. These calculations indicated that gender and non-graduate positive persistence appear to be independent. The insignificant relationship between these variables is graphically displays Figure 32.

Table 25a: Gender * Non-Grad/Pos. Persistence Crosstabulation

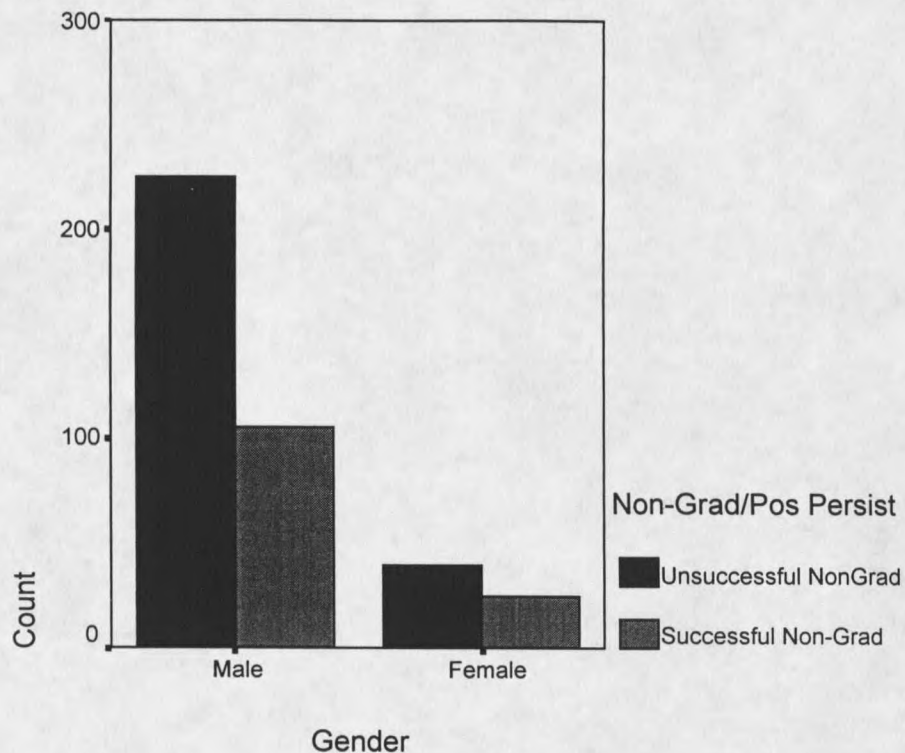
Gender	Statistics	Non-Grad/Positive Persistence		Total
		Unsuccessful Non-Grad	Successful Non-Grad	
Male	Count	225	105	330
	Expected Count	221.4	108.6	330
	% within Gender	68.2%	31.8%	100.0%
	% within Non-Grad/Pos. Persistence	84.9%	80.8%	83.5%
Female	Count	40	25	65
	Expected Count	43.6	21.4	65
	% within Gender	61.5%	38.5%	100.0%
	% within Non-Grad/Pos. Persistence	15.1%	19.2%	16.5%
TOTAL	Count	265	130	395
	Expected Count	265	130	395
	% within Gender	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 25b: Significance tests of Gender vs. Non-Grad/Pos. Persistence

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.085 ^b	1	.297		
Fisher's Exact Test				.314	.184

b. 0 cells (.0%) have an expected count less than 5. The minimum expected count is 21.39.

The independent variable of marital status was crosstabulated with the dependent variable of non-graduate positive persistence. A similar observed and expected cell counts are described in Table 26a. The expected cell counts differed from the observed cell counts by 4.6 for both sub-categories of single and married. The sub-categories of divorced and separated produced expected cell counts that differed from the expected

Figure 32: Histogram: Gender Non-Grad/Positive Persistence

counts by one or less. As a result, the Chi-Square analysis displayed in Table 26b produced a Chi-Square value of 2.706 with three degrees of freedom (df). The resulting significance level was $p = .439$. These calculations indicated that marital status and non-graduate positive persistence appear to be independent. The insignificant relationship between veterans' marital status and their academic success through positive persistence is graphically displays in Figure 33.

Table 26a: Marital Status * Non-Grad/Pos. Persistence Crosstabulation

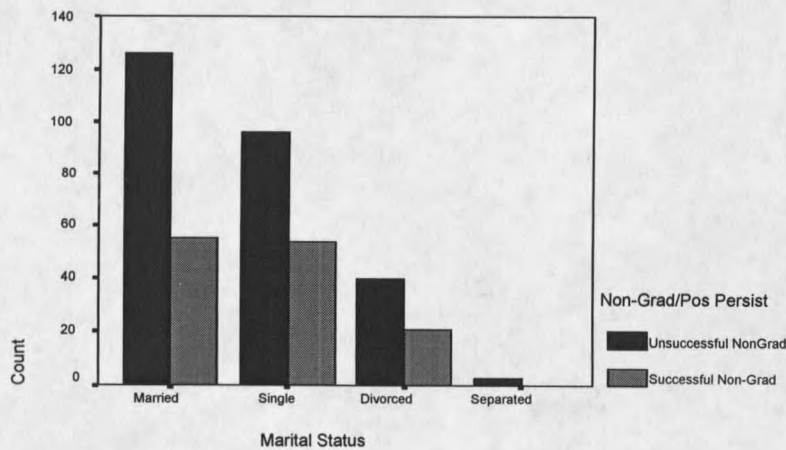
Non-Graduate/Positive Persistence				
Marital Status	Statistics	Unsuccessful Non-Grad	Successful Non-Grad	Total
Married	Count	126	55	181
	Expected Count	121.4	59.6	181
	% within Marital Status	69.6%	30.4%	100.0%
	% within Non-Grad/Pos. Persistence	47.5%	42.3%	45.8%
Single	Count	96	54	150
	Expected Count	100.6	49.4	150
	% within Marital Status	64.0%	36.0%	100.0%
	% within Non-Grad/Pos Persistence	36.2%	41.5%	38.0%
Divorced	Count	40	21	61
	Expected Count	40.9	20.1	61
	% within Marital Status	65.6%	34.4%	100.0%
	% within Non-Grad/Pos. Persistence	15.1%	16.2%	15.4%
Separated	Count	3	0	3
	Expected Count	2	1	3
	% within Marital Status	100.0%	.0%	100.0%
	% within Non-Grad/Pos. Persistence	1.1%	.0%	.8%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within Marital Status	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 26b: Chi-Square Test of Marital Status vs. Non-Grad/Pos. Persistence

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.706 ^a	3	.439

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .99.

The independent variable of the VUB participant's prior education level was crosstabulated with the dependent variable of non-graduate positive persistence. The observed and expected cell counts differed greatly as displayed in Table 27a. The expected cell counts differed from the observed cell counts by 14.6 in each of the binary cross-tabulations.

Figure 33: Histogram: Marital Status NonGrad/Positive Persistence

The Pearson Chi-Square analysis displayed in Table 27b produced a statistically significant Chi-Square value of 9.764 with 1 degree of freedom (df). The resulting significance level was $p = .002$. Therefore, based upon the Chi-Square analysis, it is concluded that there was a statistically significant difference between the observed and expected cell counts. This implies that there is a significant relationship between a veteran's prior education level and academic success through non-graduate positive persistence. One may interpret this to mean that the independent variable: the veteran's prior education level is an explanatory variable for the response: academic success through non-graduate positive persistence. The Fisher's Exact Test produced a statistically significant two sided significance level of $p = .002$ and a one-sided significance level of $p = .001$. The cell counts among the cross-tabulations contained in Figure 34 indicated that the likelihood of non-graduate positive persistence is greater for participants with prior post-secondary educational credit.

Table 27a: Prior Education * Non-Grad/Pos. Persistence Crosstabulation

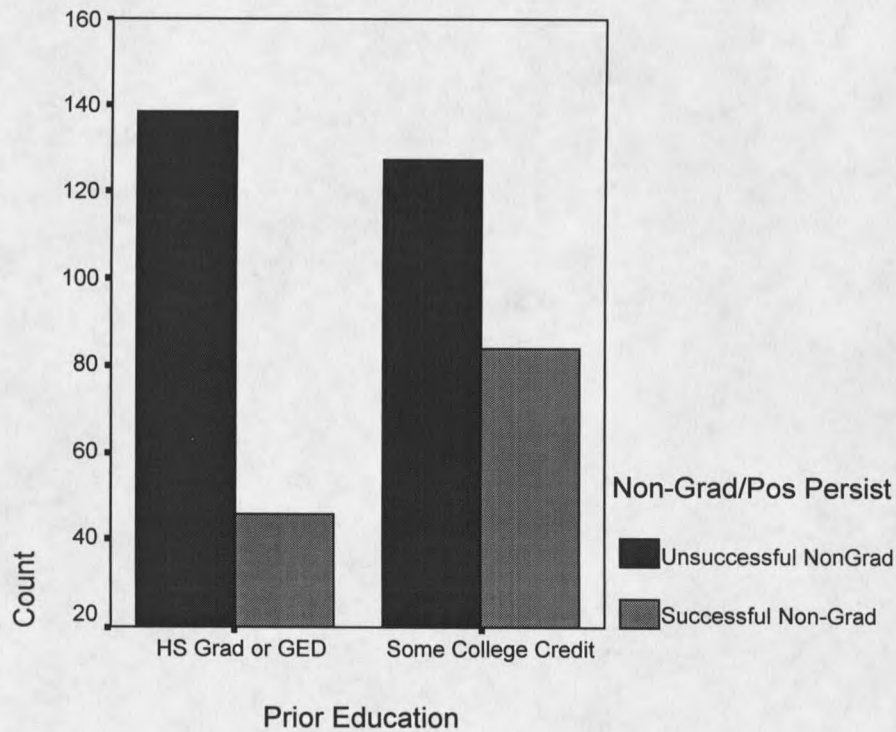
		Non-Graduate/Positive Persistence		
Prior Education	Statistics	Unsuccessful Non-Grad	Successful Non-Grad	Total
HS Grad or GED	Count	138	46	184
	Expected Count	123.4	60.6	184
	% within Prior Education	75.0%	25.0%	100.0%
	% within Non-Grad/Pos. Persistence	52.1%	35.4%	46.6%
Some College Credit	Count	127	84	211
	Expected Count	141.6	69.4	211
	% within Prior Education	60.2%	39.8%	100%
	% within Non-Grad/Pos. Persistence	47.9%	64.6%	53.4%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within Prior Education	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 27b: Significance Tests of Prior Education Level vs. Non-Grad/Pos. Persistence

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9.764 ^b	1	.002		
Fisher's Exact Test				.002	.001

b. 0 cells (.0%) have an expected count less than 5. The minimum expected count is 60.56.

The independent variable of ethnic origin was crosstabulated with the dependent variable of non-graduate positive persistence. As noted in Table 28a, the observed and expected cell counts were quite similar. Each expected cell count differed from the observed cell count by no more than 2.1. Among the 395 non-graduates who provided the valid cases for this portion of the study, 45.3 % were American Indian or Native Alaskan, and 51.9% were White. Among the non-graduates, 34.1% of the American Indian or Native Alaskan veterans were academically successful through positive ethnic groups: Asian/Pacific Islander, Black, and Hispanic. However, these three sub-

Figure 34: Histogram: Prior Educational Level/NonGrad Positive Persistence

categories accounted for only 2.9% of the non-graduate Montana VUB project participants. Therefore, the three categories merely totaled 3.6 as the expected count. Among the 11 veterans within these categories, two is the total number observed who were exercising positive persistence.

The Pearson Chi-Square analysis displayed in Table 28b produced a Chi-Square value of 4.725 with 4 degrees of freedom (df). The resulting significance level was $p = .317$. These calculations indicated that ethnic origin and non-graduate positive persistence appear to be independent. The conclusion that there is little or no relationship between these variables is graphically represented in Figure 35.

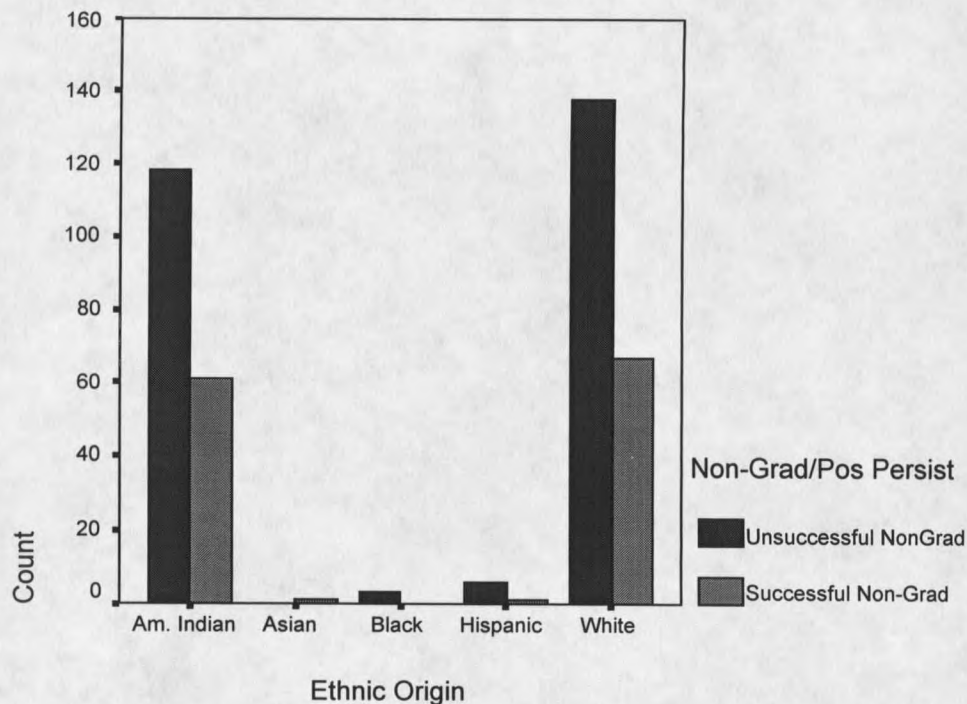
Table 28a: Ethnic Origin * Non-Grad/Pos Persistence Crosstabulation

Non-Graduate/Positive Persistence				
Ethnic Origin	Statistics	Unsuccessful Non-Grad	Successful Non-Grad	Total
Am. Indian/ Native Alaskan	Count	118	61	179
	Expected Count	120.1	58.9	179
	% within Ethnic Origin	65.9%	34.1%	100.0%
	% within Non-Grad/ Pos. Persistence	44.5%	46.9%	45.3%
Asian/Pacific Islander	Count	0	1	1
	Expected Count	.7	.3	1
	% within Ethnic Origin	.0%	100.0%	100.0%
	% within Non-Grad/ Pos. Persistence	.0%	.8%	.3%
Black	Count	3	0	3
	Expected Count	2	1	3
	% within Ethnic Origin	100.0%	.0%	100.0%
	% within Non-Grad/ Pos. Persistence	1.1%	.0%	.8%
Hispanic	Count	6	1	7
	Expected Count	4.7	2.3	7
	% within Ethnic Origin	85.7%	14.3%	100.0%
	% within Non-Grad/ Pos. Persistence	2.3%	.8%	1.8%
White	Count	138	67	205
	Expected Count	137.5	67.5	205
	% within Ethnic Origin	67.3%	32.7%	100.0%
	% within Non-Grad/ Pos. Persistence	52.1%	51.5%	51.9%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within Ethnic Origin	67.1%	32.9%	100.0%
	% within Non-Grad/ Pos. Persistence	100.0%	100.0%	100.0%

Table 28b: Chi-Square Test of Ethnic Origin vs. Non-Grad/Pos. Persistence

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.725 ^a	4	.317

a. 6 cells (60.0%) have an expected count less than 5. The minimum expected count is .33.

Figure 35: Histogram: Ethnic Origin-Race/NonGrad Positive Persistence

The independent variable of eligibility for VA benefits was crosstabulated with the dependent variable of non-graduate positive persistence. As noted in Table 29a, the observed and expected cell counts for the binary variables differed by 5.2 in each case. The observed count was 5.2 smaller than the expected count for veterans' non-eligible for VA benefits and 5.2 larger than the expected count for those eligible for VA benefits.

The Pearson Chi-Square analysis displayed in Table 29b produced a Chi-Square value of 1.260 with 1 degree of freedom (df). The resulting significance level was $p = .262$. The Fisher's Exact test produced a 2-sided significance level of $p = .284$ and a 1-sided significance level of $p = .155$. Based upon these calculations, the observed and expected cell counts do not appear to be significantly different. It is comforting to observe that the mild negative relationship observed between eligibility for VA benefits

and graduation did not appear to be present with the dependent variable of non-graduate positive persistence. The insignificant relationship observed between the variables is graphically displayed in Figure 36.

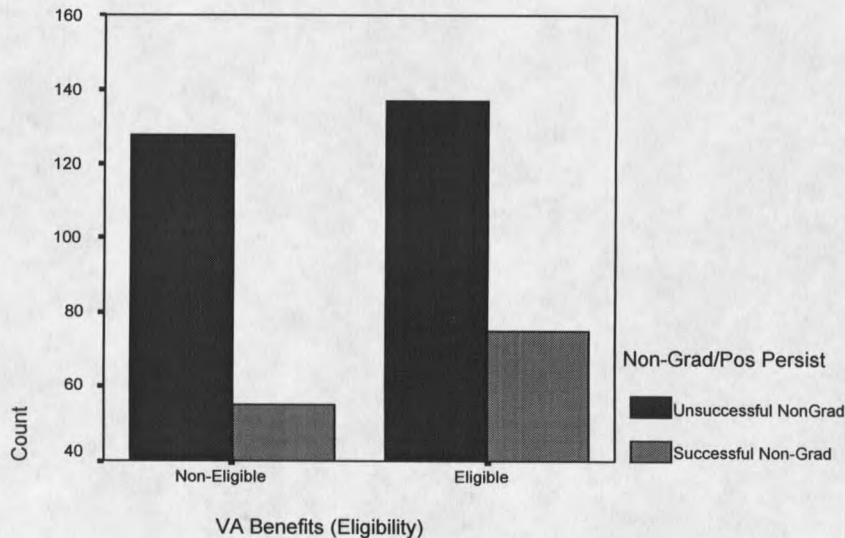
Table 29a: VA Benefits (Eligibility) * Non-Grad/Pos. Persistence Crosstabulation

Non-Graduate/Positive Persistence				
VA Benefits (Eligibility)	Statistics	Unsuccessful Non-Grad	Successful Non-Grad	Total
Non-Eligible	Count	128	55	183
	Expected Count	122.8	60.2	183
	% within VA Benefits (Eligibility)	69.9%	30.1%	100.0%
	% within Non-Grad/Pos. Persistence	48.3%	42.3%	46.3%
Eligible	Count	137	75	212
	Expected Count	142.2	69.8	212
	% within VA Benefits (Eligibility)	64.6%	35.4%	100.0%
	% within Non-Grad/Pos. Persistence	51.7%	57.7%	53.7%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within VA Benefits (Eligibility)	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 29b: Significance Tests of VA Benefits (Eligibility) vs. Non-Grad/Pos. Persistence

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.260 ^b	1	.262		
Fisher's Exact Test				.284	.155

b. 0 cells (.0%) have an expected count less than 5. The minimum expected count is 60.23.

Figure 36: Histogram: VA Benefits/NonGrad Positive Persistence

The independent variable of the prior year's income reported by project participants was crosstabulated with the dependent variable of non-graduate positive persistence. The similar observed and expected cell counts are displayed in Table 30a. Each expected cell count differed from the observed cell count by between .3 and 2.4. The cross-tabulation of the eight sub-categories of income and non-graduate positive persistence produced the Pearson Chi-Square analysis displayed in Table 30b indicating a Chi-Square value of 6.723 with 7 degrees of freedom (df). The resulting significance level was $p = .458$. These calculations indicated that there is not a significant relationship between a veteran's prior year's income and academic success among non-graduates through positive persistence because the variables appear to be independent. The insignificant relationship between these variables is presented in Figure 37.

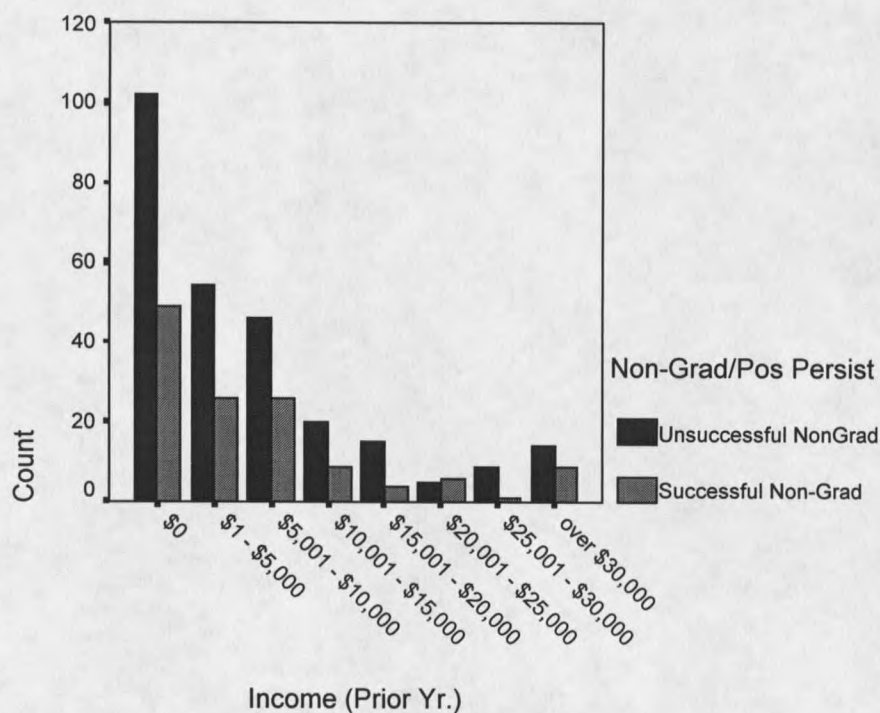
Table 30a: Income (Prior Yr.) * Non-Grad/Pos. Persistence Crosstabulation

Income (Prior Yr.)	Statistics	Non-Grad/Pos. Persistence		Total
		Unsuccessful Non-Grad	Successful Non-Grad	
\$0	Count	102	49	151
	Expected Count	101.3	49.7	151
	% within Income (Prior Yr.)	67.5%	32.5%	100.0%
	% within Non-Grad/Pos. Persistence	38.5%	37.7%	38.2%
\$1 - \$5,000	Count	54	26	80
	Expected Count	53.7	26.3	80
	% within Income (Prior Yr.)	67.5%	32.5%	100.0%
	% within Non-Grad/Pos. Persistence	20.4%	20.0%	20.3%
\$5,001 - \$10,000	Count	46	26	72
	Expected Count	48.3	23.7	72
	% within Income (Prior Yr.)	63.9%	36.1%	100.0%
	% within Non-Grad/Pos. Persistence	17.4%	20.0%	18.2%
\$10,001 - \$15,000	Count	20	9	29
	Expected Count	19.5	9.5	29
	% within Income (Prior Yr.)	69.0%	31.0%	100.0%
	% within Non-Grad/Pos. Persistence	7.5%	6.9%	7.3%
\$15,001 - \$20,000	Count	15	4	19
	Expected Count	12.7	6.3	19
	% within Income (Prior Yr.)	78.9%	21.1%	100.0%
	% within Non-Grad/Pos. Persistence	5.7%	3.1%	4.8%
\$20,001 - \$25,000	Count	5	6	11
	Expected Count	7.4	3.6	11
	% within Income (Prior Yr.)	45.5%	54.5%	100.0%
	% within Non-Grad/Pos. Persistence	1.9%	4.6%	2.8%
\$25,001 - \$30,000	Count	9	1	10
	Expected Count	6.7	3.3	10
	% within Income (Prior Yr.)	90.0%	10.0%	100.0%
	% within Non-Grad/Pos. Persistence	3.4%	.8%	2.5%
over \$30,000	Count	14	9	23
	Expected Count	15.4	7.6	23
	% within Income (Prior Yr.)	60.9%	39.1%	100.0%
	% within Non-Grad/Pos. Persistence	5.3%	6.9%	5.8%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within Income (Prior Yr.)	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 30b: Chi-Square Test of Prior Year's Income vs. Non-Grad/Pos. Persistence

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.723	7	.458

a. 2 cells (12.5%) have expected counts less than 5. The minimum expected count is 3.29.

Figure 37: Histogram: Prior Year Income/NonGrad Positive Persistence

The independent variable of the VUB participant's degree objective was crosstabulated with the dependent variable of non-graduate positive persistence. As shown in Table 31a, the observed and expected cell counts differed by between .3 and 6.4. During the Fall semester 1998, one of the four non-graduates pursuing a less than two-year certificate (i.e. 25%) had maintained positive persistence. Among the 172 non-graduates pursuing an Associate of Arts (AA) or Associate of Science (AS) degree, 63 (i.e. 36.6%) maintained positive persistence, and among the 219 non-graduates pursuing

a Bachelor of Arts (BA) or Bachelor of Science (BS) degree, 66 (i.e. 30.1%) maintained positive persistence.

The Pearson Chi-Square analysis displayed in Table 31b produced a small Chi-Square value of 1.953 with 2 degrees of freedom (df). The resulting significance level was $p = .377$. Therefore, based upon the Chi-Square analysis, there was not a significant difference between the observed and expected cell counts. The variables of a VUB participant's degree objective and non-graduate positive persistence appeared to be independent. The insignificant relationship between these variables is graphically displayed in Figure 38.

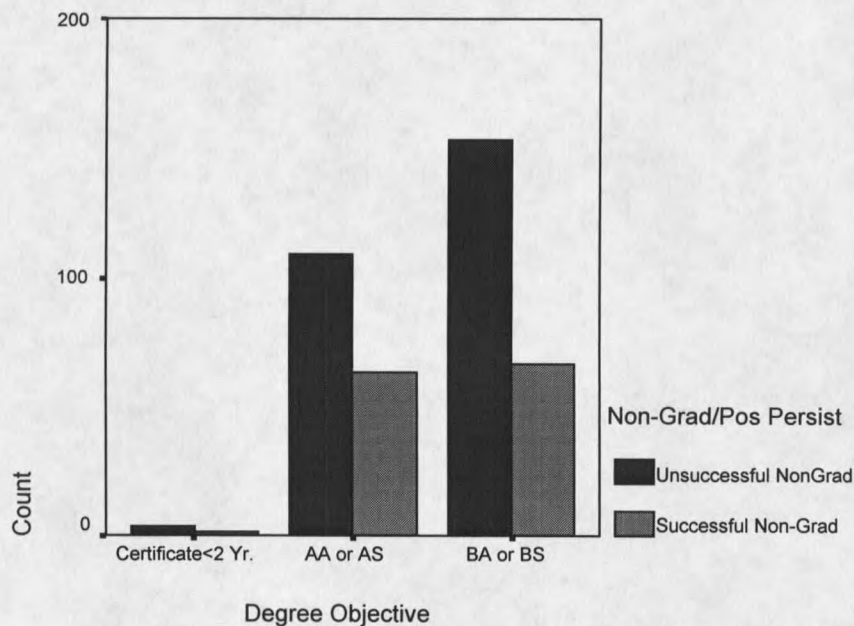
Table 31a: Degree Objective * Non-Grad/Pos. Persistence Crosstabulation

Degree Objective	Statistics	Non-Grad/Pos. Persistence		Total
		Unsuccessful Non-Grad	Successful Non-Grad	
Certificate<2 Yr.	Count	3.	1	4
	Expected Count	2.7	1.3	4
	% within Degree Objective	75.0%	25.0%	100.0%
	% within Non-Grad/Pos. Persistence	1.1%	.8%	1.0%
AA or AS	Count	109	63	172
	Expected Count	115.4	56.6	172
	% within Degree Objective	63.4%	36.6%	100.0%
	% within Non-Grad/Pos. Persistence	41.1%	48.5%	43.5%
BA or BS	Count	153	66	219
	Expected Count	146.9	72.1	219
	% within Degree Objective	69.9%	30.1%	100.0%
	% within Non-Grad/Pos. Persistence	57.7%	50.8%	55.4%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within Degree Objective	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 31b: Chi-Square Test of Degree Objective vs. Non-Grad/Pos. Persistence

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.953 ^a	2	.377

a. 2 cells (33.3%) have expected counts less than 5. The minimum expected count is 1.32.

Figure 38: Histogram: Degree Objective/NonGrad Positive Persistence

The independent variable of the type of post-secondary education (PSE) (i.e. type of institution) the VUB participant had attended or was attending was crosstabulated with the dependent variable of non-graduate positive persistence. As shown in Table 32a the observed and expected cell counts differed significantly. The expected cell counts differed from the observed cell counts by between 1.6 and 11.7. The observed count was lower than expected in both two and four-year public or private institutions. Inversely, the observed count was higher than expected in two or four-year Tribal Colleges. The observed cell count in two or four-year tribal colleges was found to be 11.7 higher than the expected cell count. Among the 174 non-graduates who had attended or were currently attending two or four-year tribal colleges, 39.7% were exercising positive persistence. Within four-year public or private institutions, the expected cell count was 10.1 higher than the observed cell count. Merely 28.1% of the 210 non-graduate veterans

who had previously or were currently attending these institutions were exercising positive persistence. Among the 11 non-graduates who had attended or were currently attending two-year public or private institutions, merely 18.2% were exercising positive persistence.

The Pearson Chi-Square analysis displayed in Table 32b produced a statistically significant Chi-Square value of 6.871 with 2 degrees of freedom (df). The resulting significance level was $p = .032$. Therefore, based upon the Chi-Square analysis, it appears that there was a significant difference between the observed and expected cell counts. This implies that the variables are not independent because there is a significant relationship between the type of institution attended and academic success through non-graduate positive persistence. One may interpret this to mean that the independent variable: the type of institution attended is an explanatory variable for the response: academic success through non-graduate positive persistence. The significant relationship between these variables is graphically displayed in Chart 32.

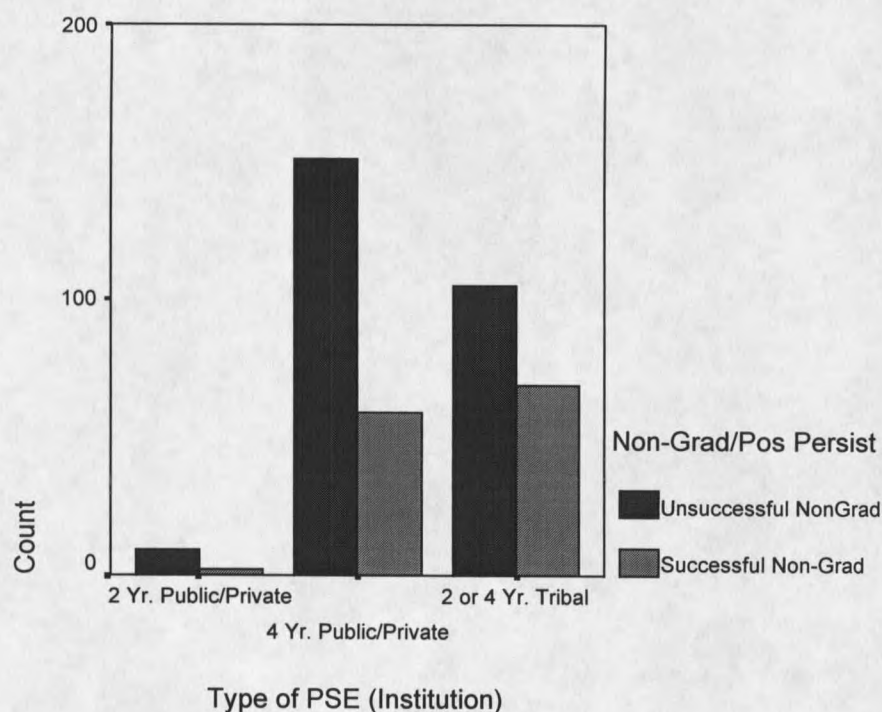
Table 32a: Type of PSE (Institution) * Non-Grad/Pos. Persistence Crosstabulation

Type of PSE (Institution)	Statistics	Non-Grad/Pos. Persistence		Total
		Unsuccessful Non-Grad	Successful Non-Grad	
2 Yr. Public/Private	Count	9	2	11
	Expected Count	7.4	3.6	11
	% within Type of PSE	81.8%	18.2%	100.0%
	% within Non-Grad/Pos. Persistence	3.4%	1.5%	2.8%
4 Yr. Public/Private	Count	151	59	210
	Expected Count	140.9	69.1	210
	% within Type of PSE	71.9%	28.1%	100.0%
	% within Non-Grad/Pos. Persistence	57.0%	45.4%	53.2%
2 or 4 Yr. Tribal	Count	105	69	174
	Expected Count	116.7	57.3	174
	% within Type of PSE	60.3%	39.7%	100.0%
	% within Non-Grad/Pos. Persistence	39.6%	53.1%	44.1%
Total	Count	265	130	395
	Expected Count	265	130	395
	% within Type of PSE	67.1%	32.9%	100.0%
	% within Non-Grad/Pos. Persistence	100.0%	100.0%	100.0%

Table 32b: Chi-Square Test of Type of PSE vs. Non-Grad/Pos. Persistence

Pearson Chi-Square	Value	df	Asymp. Sig. (2-sided)
6.871 ^a	2	.032	

a. 1 cell (16.7%) has an expected count less than 5. The minimum expected count is 3.62.

Figure 39: Histogram: Type PSE Institution Attended/NonGrad Positive Persistence

Focus Group Results

Krueger (1998) provided suggestions for reporting focus groups results.

Following Kruger's protocol for reporting focus group interviews focus results, the illustrative findings of the interviews are presented accordingly: 1.) Reintroduction of the purpose of the study and use of the focus groups; 2.) A brief profile of group participants; and 3.) Narrative outcomes organized by theoretical themes. This framework was used to present the information resulting from the study's focus group interviews.

Reintroduction of the Purpose and Use of Focus Groups

A qualitative method was used to address the purpose of this study, which pertained to gaining an understanding of postsecondary experiences of a selected group of VUB participants, to answer the third and fourth research questions put forth by this study. The problem presented by the study was the lack of research and understanding of Montana's VUB participants and their postsecondary experiences related to academic success or failure. Two focus group interviews were conducted. Group One consisted of five Montana VUB participants who had graduated or were currently enrolled with at least a GPA of 2.0. This group was defined as "academically successful." Group Two consisted of seven former VUB participants who had dropped out, stopped out, or were enrolled with a GPA of less than a 2.0. This group was determined to be "academically unsuccessful" at the time. In addition to the four interaction themes presented in Bean's (1990) theoretical model, each group was asked to comment on the study's findings that related to the demographic variables having a relationship to academic success. Finally, each group was asked to reflect on their college experiences and share their thoughts on the VUB project, and how it could improve project services.

Profiles are provided for each of the group participants. These profiles contain information pertaining to their enrollment in VUB and the college that they attended. The participants immediately described are those participants who attended the first focus group and were defined as "academically successful participants." It should be cautioned that findings and interpretations are limited to those participants who attended only the VUB Billings site and attended colleges in the Billings area. Failure of invited tribal

college veterans from Little Big Horn and Dull Knife Memorial College to participate in the focus groups, as well, as the delimitation of inviting participants from the more remote VUB tribal college sites, prevented generalizations to these VUB participants.

Profiles of "Academically Successful" Participants: Group One

W.V. was a single 35-year-old Native American female head of household with two dependents. She attended the Montana VUB at Little Big Horn College in Spring 1996, and reentered VUB at MSU Billings in Fall 1996. She initially began college while in the military and attended MSU Bozeman in Fall 1993 as a pre-engineering major. She served in the U.S. Air Force for four years and was honorably discharged. She had no prior year income when she entered VUB, and was eligible and received both the GI Bill and federal financial aid. She post-tested at the 12.9 grade level using the Test of Adult Basic Education (TABE). Her goals for entering VUB were to refresh her basic academic skills and return to college to complete her degree. She graduated from MSU Billings with a degree in General Business Administration with a 2.96 grade point average.

F.R. was a 50-year-old Native American-Hispanic male, married with four dependents. He enrolled in VUB at the MSU Billings site and is currently attending Billings College of Technology as a full time student. He served 24 years in the U.S. Air Force and was honorably discharged as a master sergeant (a senior enlisted rank). He was a communications computer systems journeyman. His other military occupations included a missile craftsman, and a heating and cooling craftsman. He had a joint income of \$17,850 a year prior to entering VUB. He previously attended May Technical

College, earning over 40 credits with an A average. He was in his last semester when the college closed. His stated reasons for entering VUB were to refresh his basic academic skills, acquire assistance in obtaining his GI Bill, and get into the computer information program at COT. He post-tested at the 12.9 grade level using the TABE. He currently has a GPA of 3.64.

S.J. was a 61 year old white male, who is recently divorced with three older children. He served in the U.S. Marine Corps from 1959-1963 and received an honorable discharge as an E-3 (Corporal). He attended two semesters at West Chester University (PA) and earned 18 credits just prior to entering the military. His GPA at that institution was 2.0. Upon being discharged, he reentered Villanova University in 1967, earning 61 credits during the four-year period with a GPA of 2.46. He attended Northern Montana College--1974 through 1980, taking one course a semester, at which time he had accumulated 138 credits with a 2.76 GPA. He entered VUB in summer 1993 with the expressed interest in improving his study skills, setting educational and vocational goals, and getting assistance with federal financial aid. He had a prior year income of \$28,295 before entering VUB, and post-tested at a 12.9 grade level using the TABE. He graduated from MSU Billings in Summer semester 1996 with a B.S. in Education. He earned a final GPA of 3.2. He is currently a full time teacher in the Billings area.

D.A. was a 64-year-old white male, married with two grown children. He entered VUB in Spring semester 1994. He had no prior income except for social security benefits awarded for a 30% disability for lost of speech related to removal of his larynx from cancer. He served in the U.S. Army from 1954-1957 and received an honorable discharge as an E-3. He had no prior college credit before entering VUB and post-tested

at a 10.6 grade level in math and a 12.9 grade level in language using the TABE. He stated that he entered VUB in fall semester 1994 to acquire college level academic skills, for socialization, as he felt isolated since his surgery, and to get information to enter the Billings COT program in Culinary Arts program. He entered COT without benefit of the GI Bill in Spring semester 1995 and graduated with an AA in that major in Spring 1996 with a 2.95 GPA.

P.T. was a 30-year-old white male who is single with no dependent children. He is a U.S. Navy veteran having served for a period of three years, receiving an honorable discharge as an E-4 in 1991. He entered VUB in fall 1995 with a prior year income of \$5,230. He had no prior college before entering VUB. He enrolled at MSU Billings in Spring semester 1996 and is currently enrolled having earned 84 credits with a GPA of 3.8. He usually attends college on a $\frac{3}{4}$ time basis (9 credits), raises cattle, and is receiving the GI Bill. His post TABE scores showed academic skills at a 12.9 grade level having entered at a 9.0 grade level. He is currently enrolled declared a business major.

Profiles of "Academically Unsuccessful" Participants: Group Two

The participants described below attended the second focus group and were defined as academically unsuccessful. It should be noted that the ages of these participants are current ages and not their ages at the time of VUB enrollment. Also two of the participants in this group had reenrolled in college and earned a degree or certificate since June 1998.

S.V. was a 36-year-old white female who is divorced and is the single head of household with two young children. She served in the U.S. Air Force for almost eight

years, and was medically discharged because of a back injury. She was a crypto journeyman during her whole enlistment and was discharged in 1995. She had a total income of \$8,578 in the year prior to her entrance into VUB in the fall of 1995. While in the service, she had taken two courses in psychology through the University of Maryland, and earned 6 credits with a 4.0 GPA. She attended May Technical College prior to her enlistment and earned a certificate in broadcast journalism in the two-month program. Her reasons for entering VUB were to get back into the learning environment, find out more about herself, receive assistance with the GI Bill, and gain a direction. Her pre- and post-test scores were very high and at the far range of the 12.9 grade level using the TABE. She entered MSU Billings directly from VUB in the spring semester of 1996 enrolling in 12 credits. She completed the semester completing 9 credits with a 4.0 GPA. She was seeking a BA in Communication Arts and Organization, but dropped out immediately completing the semester. She has not taken any additional courses since then, but indicated on her pre-group questionnaire that she had stopped out and would like to reenter college at a later date..

B.R. was a 52-year-old white female who is single with no dependent children. She served in the U.S. Air Force for four years and was honorably discharged as an E-4. She earned 12 educational credits while in the military from Florida State University, with a GPA of 2.76. After the military, she accumulated credits both at Rocky Mountain College and Eastern Montana College. Prior to her enrollment in VUB in fall 1996, she had a GPA of 1.94 from Eastern. Her stated interest in attending VUB including upgrading her computer skills, and improving her academic skills. She was not eligible for the GI Bill. She indicated she was more interested in finding employment than

getting a degree. She had extremely high scores on her TABE pre- and post-tests. She registered at MSU Billings, but withdrew from the semester without earning any credits. She returned to Rocky Mountain College and completed a BS degree. She is currently unemployed and has no immediate plans for returning to college. Because of her non-attendance in June 1998, she was classified as "non-successful". It was not known, if her graduation status influenced her remarks being among non-successful participants. All group members had no previous knowledge that they were divided into two groups classified as successful and unsuccessful.

K.R. was a 60-year-old white male who is widowed with two grown children. He served three years in the U.S. Army as an auto repairman and was honorably discharged as an E-4 (Corporal) in 1965. He accumulated 22 credits at Sheridan Community College with a GPA of 2.88. He had a total prior year income of \$3,441 when he entered VUB in Fall semester 1994. He was not eligible for the GI Bill. He entered MSU Billing COT to pursue an AA degree the semester following his enrollment in VUB. He was forced to withdraw because of a heart attack, and spent one and one-half years in rehabilitation. He is working full time and indicated he stopped out on his pre-group questionnaire.

L.D. was a 31-year-old white male married with two dependents. He served in the U.S. Air Force for three years and received an honorable discharge as an E-3 in 1992. He was a medical lab specialist in the service. He entered VUB in Fall 1997 with no prior year income. Both his pre- and post-TABE scores were at the high end of the 12.9 grade level. He received a broadcasting certificate from May Technical College prior to his enlistment in the military. He indicated he needed assistance in transitioning into

college and starting his GI Bill. His vocational goal was to earn a degree to enable him to work in medical research. He completed VUB in Fall 1997 and entered MSU Billings in Spring semester 1998. He enrolled for 17 credits as Chemistry major, but withdrew and received failing grades for all classes. He indicated that he was a stop out on the pre-group questionnaire, yet he expressed satisfaction with his current job at the Billings Sugar Beet factory and hoped he would stay there for a long time.

C.P. was a 31-year-old white female, married with three dependents. She served in the U.S. Army for just less than six years as a warehouse specialist. She was honorably discharged as an E-4, but was beyond the 10-year delimiting date to be eligible for the GI Bill for college. Her joint income one year prior to her enrollment in VUB in 1998 was \$42,000. Shortly after her discharge, she earned six college credits earning a GPA of 1.5. She indicated that she would like to return to school as a computer technician. Her post TABE scores indicated a 12.4 grade level in language and a 7th-grade level in math. She entered COT Billings to pursue a two-year degree in computer business information systems. She attended two semesters earning 32 credits with a GPA of 2.69. She indicated she stopped out of COT on her pre-group questionnaire because of personal problems occurring at home. She later transferred her credits to Education America to earn a computer tech certificate.

R.W. was a 30-year-old Native American male, divorced with two young children. He is a single head of household. He served four years in the U.S. Marine Corps as a helicopter mechanic. He had a prior year income of \$633. He had no prior college credits before entering VUB in Fall semester 1993. He was eligible for V.A. educational benefits and social security. State Rehabilitation Services referred him to the

program because of a serious head and neck injury incurred in an automobile accident. He suffered residual memory loss and some loss of cognitive functions. He pre-tested at 9.1-grade level in math and 7.7 in language using the TABE. He indicated he needed to work on his memory and basic academic skills. He continued his enrollment with VUB for two semesters. He post-tested at a 12.9 grade level in math and a 9.5 grade level in language. He entered MSU Billing in Fall 1994 seeking a four-year degree in Sociology. He withdrew in his senior year with a GPA of 1.9 because he felt "burnt out". He indicated he is working full time as a surgical tool technician, and plans on returning to school to complete his degree.

H.J. was a 51-year-old white male veteran, married with one dependent. He served in the U.S. Army for 3 ½ years and was honorably discharged as a sergeant. He was not eligible for the GI Bill, but he and his wife received retirement and earned \$45,459 the year prior to his entrance in VUB. He earned 16 credits while in the military with a GPA of 2.62. Upon discharge, he earned 63 credits attending the Metropolitan Police Academy and Eastern Montana College. He indicated he entered VUB because he wanted to return to school, get remediation in math, and learn computers. He indicated he wanted to pursue a four-year degree in computers. He post-tested at the 12.9 grade level using the TABE. He entered Rocky Mountain College in the semester following his VUB enrollment earning 12 credits with a GPA of 3.25 before dropping out. He indicated he dropped out because of health problems.

Focus Group One: Narration of Selected Demographic Variables to Academic Success

Both focus groups were provided the results of the statistical analysis, as an introduction to the purpose of the study, and each group were asked to provide feedback on those background characteristics they felt important in their postsecondary experiences such as their age, the use of the GI Bill, their degree objective, their GPA, and the type of institution they attended. After a long pause to reflect upon the results, four of the five participants in Group One commented on what they felt were important variables to their success. **D.A.** commented, "I had a definite goal (degree objective) in mind, everything else didn't have anything to do with it." **T.P.** commented, "All of those affected me. When I went into the military I was under 30, (age) when I got out I put it off. The GI Bill was a big factor for me being able to do it." **F.R.** agreed, "Money is a big effort, the GI Bill made a difference. I got out in 95; I didn't start school until 97. In fact I attended May Technical College (type of institution). But when it closed down I went there, because the universities didn't offer what I wanted." **W.V.** reflected on her institution's academic forgiveness program. "I think um, when I went to school and dropped out and I didn't return for 10 years and I came back, I had bad grades from the first time, but MSU offered a program called bankruptcy (type of institution & organizational factors) and you could bankrupt the bad credits when you first started. I got those cleaned out. I felt much better like starting out with a fresh slate. I felt I could succeed with a much higher. Um... rather than work my way up again." (GPA). For everyone but **W.V.**, the relationship between previous academic experience and credits were not noted as an important factor in graduating or positive persistence. The group's

answers seemed more focused and less rambling than Group Two whose participants had dropped out or left.

Focus Group Two: Narration of Selected Demographic Variables to Academic Success

B.R. initiated the discussion about the importance of selected variables to academic success. "I would disagree to start off with. First of all it comes from a foundation of what your attitude toward education is. If you value education you will stay, and it's not going to matter about your age or getting a supplemental income of any type...I think that's been true all the way through." **L.D.** responded, "For me I put my family before my education. That's why I dropped out of school, my family needed a place to live, to put food on the table and I couldn't afford to go to school. There was no time for me to study or anything else. I tried to provide for my family...something has to go". (It should be noted that **L.D.** had received the GI Bill while in school.) **C.P.** responded, providing input not only about the variables questioned but the environmental pull-factors that were later addressed in the discussion. "I felt that way too, when I first started, so I didn't go to Rocky or Eastern, I went to Education America (type of institution), which is not a traditional college, but was like May Technical College. It was a business college, they offered degrees, they offered help, and they had various ages. I felt I couldn't do this thing (go to college); I couldn't sacrifice my family to study. I didn't have time to go to school. But, I did find the time. I went to school. I went to school from 8 in the morning to 1 o'clock in the afternoon. I was in work at 4:30 in the afternoon and off at 1 o'clock in the morning. I was running on five hours of sleep and two hours of study and still managed to pull a 2.76 grade point average. You have to

know that your family is there for you; you're not just the only one there for your family. Your family must be there for you, and that's where a lot of people fall down". (It should be noted that **C.P** continued on and received a certificate from Education America). **S.V.** provided insight on how environmental-pull factors neutralized the advantages she had going for her. "I was thinking that I had almost every single one of those things (age, GI Bill, a degree objective, prior college credits and had selected an institution) you named it and I dropped out after two semesters. I was 30, I was pulling a 4.0, I had V.A. benefits, I attended and received a degree in broadcast journalism, but what was really hard for me was that I had made good money in the military and I had just gotten out and had money to burn and after going to school for two semesters, I had no more money and couldn't see my way clear to live on the benefits but I had a really hard time, this is a personal thing. I didn't have the discipline to go to work at the same time. Then other life factors came into it, I got married, had a child, and got divorced all in the same year. You change your focus for wanting to go to school to get a better job to just wanting to work in order to survive. The longer you are out the harder it is to return, but if I remarry I will not only get the financial support, but the emotional support...I would return not for the reason of getting a degree, but I started it and would like to finish it." **B.R.**, upon further reflection, changed her opinion of the value of education being the sole determinant of completing school. "I think there's a difference here in age (age) groups too and where we come from and a time where an education once you got it put you higher on the socio-economic ladder and these kids (younger participants like **S.V.**), are going through a period when education doesn't mean much. You can go to a vocational school (Type of Institution) and make two to three times as much as someone with a college degree."

degree objective). **S.V.** notes the importance of the type of institution she attended and provides further insight regarding the age factor. "I have to say I did vocational school right out of high school and I admit I come from an age of instant gratification and it was more attractive for me to think about going to a school where everything is focused on one end goal." The male participants picked up the variable of age. **H.J.** comments, "I don't think that age has much to do with it (persistence, graduation), there were people older than me. For one thing, for older veterans getting back into school is extremely difficult. One thing that the State Of Montana does have for us older vets is the veterans' fee waiver. I am a Vietnam Era veteran and they waived the tuition. That was great, but my first semester, I earned a 3.75 GPA and I had never in my life earned better than a 2.0, Believe me! (GPA) I went for two semesters before I had blocked arteries and I had to dropout." Another male participant **K.R.** added "I had been out of school for some 30 years and reached a place in my life where I was single and my kids were out on their own and I had time on my hands, a little control over my time for the first time in many years and I thought I wanted to go back to school and finish my degree. I did some checking on my transcripts and things I got from the service (GPA); and um I thought heck I can do this in a couple of years; and I didn't get any veterans benefits at all (GI Bill); and then I found out they wanted me to take a lot of them (credits); and it would have wound up being a four year school again (type of institution)". (**K.R.** completed VUB and entered a two-year COT, but because of heart problems also dropped out).

H.J., who earlier felt it was more difficult for older veterans to return to school, found that age was not a factor once he entered college. "I don't think age has much to do with it. There were some people older than me.... we met in the cafeteria...as sort of middle

aged group of students". **C.P.** the female participant, who finally finished her degree at Education America, felt that all her experiences were with younger students at MSU Billings. She didn't have the time to socialize with these students like **H.J.** Finally **P.C.** provided some insight of the resentment regarding the 10-year delimitation on the GI Bill. "And for me I didn't get any veterans' benefits at all. They said No Way! My benefits expired 10 years after I got out of the military. They didn't want to talk to me." (The Veterans Administration)

In summary, both groups confirmed to various degrees, the relationship of demographic variables had on in their participation, persistence, or graduation from college. The successful group noted the importance of the GI Bill, type of institution, and GPA to their success. They also alluded to various institutional policies that assisted them in staying or completing college. Perhaps because of fewer participants, they were less verbal, stayed close to the question and tended to view their experiences in a more positive manner (attitude). Group Two, while focused on the debate of age, really began to illustrate the environmental factors described by Bean (1990): the hardship of providing for a family, the lack of available programs, health problems, non-eligibility for benefits, lack of time etc. For most of these participants, their situations were perceived to be beyond their control. It is interesting that the two participants, who were most vocal in responding to this question, acknowledged their shortcomings and returned to school to complete their degrees. Another interesting facet of the second group was the changing of previously held thoughts, especially age. While this is an expected process for focus groups, I think it also suggested that this was the first time many of the individuals had taken the time to reflect on their past educational experiences. While the

VUB project had categorized a number of the participants in Group Two as dropouts, every single participant indicated that they had stopped out and had intentions of returning. Perhaps because of the negative connotations of dropping out, most preferred stopping out, even in spite of my conversations with a few members of Group Two, who indicated that they were satisfied with their current work situation, and saw no need to ever return to school. A distinguishing attitude between the two groups emerges with each theme question.

Group One: Narration of Bean's Interaction Organizational Variables

Each student completed a pre-group questionnaire that introduced him or her to Beans four interaction themes (organizational, academic, social and environmental pull factors). These themes provided the focus for the groups' discussions. The organizational theme takes into account a student's interaction with the institution's infrastructure, its policies, services and practices. This theme began to emerge from both group discussions in response to the introductory question.

Again Focus Group One seemed more formal taking turns to answer the question. There did not seem to be same kind of influence and swaying that characterized the second group. Problems with institutional services were noted, however, group participants did not seem to be overwhelmed by them. They learned to overcome or adapt to them, rather than become discouraged or defeated by them. **F.R.** began the discussion "I had one dealing with my training records down in 105 or 107 (Admissions office rooms at MSU Billings) or wherever. The VA office was to have them reviewed to see if I could get credits for my military schools. I went in there three times before I

could get them to look at them. The first and second time they couldn't find them they disappeared. I wasn't very happy about it but it didn't change my mind to go, I had already make up my mind to go. But it could discourage other people." The following comment by **S.J.** reveals the issue of age, generation gap and perhaps maturity in dealing with obstacles. "The only thing I found...I can't speak for other services but the Marine Corps was pretty regimented and I just figured these are the rules and regulations of the school so why get upset with a clerk...you can always go higher up. The only negative thing I found and it was really negative, but it was kind of humorous to me...um. I had one class left in my education and I got a letter in the mail accepting me into the School of Education (student was graduating from the school). I never got one and never questioned it, why am I getting one now? I am taking my last class. It was kinda humorous for me. Every place has its policies you need to talk to the right people. You can't get upset. Because of the generation, I am in you follow the rules. The younger generation I'm sure is different. It all worked out for me." Finding the right person also proved helpful for **P.T.** "When I was registering I was told I needed to see an academic advisor...and I asked who was that...They told me who she was and I was told I needed an appointment, and she was filled up for five weeks--that made it difficult. I was in a panic, so I went to VUB and Fred made a couple of phone calls to someone to have them signoff, so I could register. I didn't see what the big deal was. I was just going to start off with some basic general education courses." **D.A.** was extremely positive about his own personal experience, however a difficulty arising from an assault on his daughter by a faculty member who attended the same institution created antagonism with the administration. "Out at COT I had good support. The staff... I had one instructor, when

he spoke you could hardly understand him, but we talked it out. Everything went good. Above that things got kinda rough. It was kinda of difficult to deal with problems. I had a small problem with over scheduling and I went up to the assistant administrator. An instructor assaulted my daughter, and I went to see this same administrator. They couldn't tell me anything because of confidentiality...but that didn't give the instructor the right to use her as a punching ball." Clearly, the student was angered about what happened to his daughter but did not let it prevent him or her from graduating. The transition shock from the tribal college to the university including the different culture perspective is evident in W.V.'s response. "When I first came here (from Little Big Horn College), you had to wait in a big, long line and you don't know what really to expect and by the time you get there (at the front of the line), and you realize that you didn't correctly fill it out...the bubble sheet or what ever, at first they would tell me what to do, I'd return around and get back at the end of the line. but being in VUB helped me to talk to my peers, to ask questions, and we didn't have to be like a herd. So I learned to stand up for myself. So the next time I got in line, I would ask questions, instead of going back in line...um. I learned to be more aggressive, proactive rather than just take what is given me. It was hard when you first came in. It's scary registering in long lines. You don't know what to do. It's discouraging." From Group One discussions registration and admissions seemed to be the greatest obstacles they encountered upon entering college. They all seemed to adapt either by accepting things as they were or finding out what to do or contacting people that could help. Their list of institutional barriers, while limited, was real.

Group Two: Narration of Bean's Interaction Organizational Variables

The lively dialogue displayed by the second group continued providing much more rich detail about their college experiences. While it started out on a positive note, one participant's litany of bad experiences seemed to catch hold and complaints abounded. Again, attitude became a distinguishing feature separating the two groups. The narrative referenced below illustrates this tendency between Focus Group Two members. **B.R.** " Since I'm the oldest one here, I will start first, cause I started out at Rocky in 71. Vietnam was still going on and it was hippieville over here (Rocky Mountain College). I was ultra-conservative, fresh out of the military, the only female vet there and I didn't know anything until this one vet gripped me by the nape of the neck and set me down. That was my education; I was with the vets and cowboys. We had our own little group and he helped me change my major down the line (socialization factor). Other than that they told me I was a freshmen, and I had to check in every night cause I lived in the dorms. I said not a chance, I was 22 years old and I didn't need to do that, and I wasn't going to. I pretty much went my own way. As for the faculty, many were World War II veterans and they were really helpful." **L.D.** seemed to make the transition in the more recent times without the turmoil of the late 60's and early 70's campus activity. "I went here (MSU Billings) and first went to do my schedule, they showed me how to do it and other than that it was my only point of interaction I had with the office thing. State Rehabilitation paid my tuition so I didn't have to interact with financial aid or anything like that. Most people were approachable, some aren't. I think with teachers it's the same way, some I wouldn't ask the time of day, others you could sit down and

talk to them really easy.” The factor of age continues to emerge and frames the condition for interaction of one participant. **H.J.** continued “See that’s one thing about older students...the kids living here in the dorms here (MSU Billings) still have a real active social life, but we’re old and really don’t have a social life (laughter) so they are in a party mode. We just want to get in and get out and get on with our lives. They are still learning about life” (social and environmental pull factors). **S.V.** felt that her older age had an advantage in her interaction with her instructors. “I felt I had really good interaction with the instructors because it felt like it was refreshing for them to have someone interested and not snoozing off from last night’s party. I found it a little more difficult dealing with the other students. The younger students didn’t seem to appreciate that I liked to get into conversations and discussions in class. They wanted everyone to shut up and get through class and get on their way. At times I felt intrusive cause no one answered questions or got involved.” A younger group participant, maybe because of his age, felt different but it didn’t present a problem for him. **R.W.** “When I started here (MSU Billings) I was only 22 or 23 so I was different from a kid coming out of high school. I had no trouble. Everything went smooth.” **H.R.** begins to influence the positive direction of the group by vocalizing a popular student complaint at the time. While he found an appropriate way to spend his time on campus and he did not have to work while attending school he felt that student parking could be a major concern for those nontraditional students who took classes and had to leave campus for work. “One thing I noticed if you didn’t have a class until 10:00 am, I had to get here by 7:00 am to get parking. If I had two--three breaks between classes, I stayed and had coffee or something so I wouldn’t lose my parking space...others had to leave because of jobs and

they would arrive to classes really frustrated because they couldn't find a place to park."

The issue of class schedules and requirements that would prolong a student's study became a more pressing concern of the group. **S.V.** questioned the group "Did most of you take classes during the day or evening? I noticed that there were a lot more older students in the evening and the day classes catered to the younger students." From this point on, the concerns, complaints and difficulty with scheduling and prolonged classes began to increase. **R.B.** I think their scheduling...that's a school problem, you have to be here five years to do a four year program." **K.R.** a two-year COT student felt the same sense of frustration "I just came to take classes and then left. I really didn't take part in any of it—the college life, the social life. I was just here for the classes. When they were over I was gone. Everything was set up by VUB (the first semester) then I went to McMullen Hall to see what I would do next year (advisement). They wanted me to take a bunch of classes I haven't had and probably won't use again. Why do I have to waste my time and money retaking them (classes)?" Mc Mullen Hall triggered a different experience by **H.J.** "What I found VUB helped me out by sending me to a lady in McMullen to see what credits I could pick-up. She went out of her way to help me." Criticism became more constructive for a short time after **H.J.** positive experience. **S.V.** notes "I had instructors say you don't need this initial class because of your life experiences are beyond it. That helped me out, they no longer have childcare facilities available and that would really help me out now." **C.P.**, who did transfer to Education America, and completed her degree, provides insight on why she transferred from MSU Billings. The institution especially advisement and instructors became the focus of discontent. **C.P.** "VUB helped me out, but as far as MSU is concerned there were very

few people concerned. There were very few people willing to help me out. Very few...when I went into their guidance counselors to talk to them. One appointment I would talk to one gal, the next appointment I would talk to another gal, than another appointment and another gal. I had to go over everything each time. It got extremely frustrating, and when I finally said this is what I'm interested in, they would say we don't know anything about that area, but why don't you try this area. Instead of saying this sounds great, and let me check into this for you. It was a very big detriment when they tell you we don't know anything about it... I took six weeks of computer classes one summer and the instructors were so stressed out and so rushed there was no room for extra help. That was a big detriment why I choose an optional school." Instructors were another concern of **B.R.** "I attended Rocky and took classes at MSU Billings. The teachers here were only involved in getting them (students) through no matter what the size of the class. They were just going to do the program! That was why I went back to Rocky." **H.J.** "I had professor X stand up in class and say I don't give anybody F's, because I don't want to see you again. So all you have to do is show up and get a D." It is clear that the second group has a greater number of negative experiences with the institutions they attended. Certainly the second group as described by Tinto and others did not "institutionally fit" the colleges they were attending. Participants in Group Two were more into questioning an institution's policies especially in regards to course requirements. They perceived a greater divide between themselves and the younger students and finally, they did not feel that they received the help or concern and caring by the institutions faculty. It should be noted that two of the most vocal female participants did take positive actions by transferring to another institution to complete their degrees.

Group One: Narration of Bean's Academic Interaction Variables

Bean (1990) noted that academic integration is an important factor in decisions to remain or leave college. This theme encompasses study strategies and habits, interest and behavior in classes, relationships with faculty and certainty of academic major. These areas emerged from the two previous questions. Again the distinguishing feature between the two groups was one of attitude and institutional fit. Both groups related a change in how they approached college the first time and became more focused and committed to their educational goal the second time around. The first group seemed to have a more positive relationship with faculty. Both group acknowledged that VUB provided them with not only good strategies for studying but introduced them to important resources and contacts within the institution they attended.

The participants from Group One focused on the area of study skills to describe their academic interaction. W.V. noted the changes which occurred from her first time in college "The first time I went to school, you know the first time you are away at school, being away from school, mom and dad aren't watching over you. I'm free, you have a different attitude, and I can do anything I want. I can party and that really didn't help. I didn't have study skills. You can do it. but you actually have to do your homework and sit in class and get by. When I got into class (the second time around), I'd look around to see who the serious students were and tried to hook up with them and get study groups together. VUB helped me do that." F.R. another group member responded. "That was a good point about study groups in the questionnaire. Depending upon how you came through high school, of course if you stayed awake in high school, with one eye open you

could pass anything. **T.P.** noted that the time away from high school, and his time in the service eroded what he had learned about good study habits. "On study skills, I had good study habits, but being away for five to six years. VUB really helped me especially algebra--get me back in what I call the "academic mode". It gave me confidence that I can do it." **W.V.** noted she received a great deal of assistance from a resource she learned through VUB; it was Student Opportunity Services, another TRIO program.

Group Two: Narration of Bean's Academic Interaction Variables

The second group got into specifics naming instructors and classes that they didn't feel were worthwhile. The desire to take only what they felt was needed and to get in and out became a major theme. **S.V.** started out "To me there are only two basic reasons to go to school. One is to learn for the fun of learning, and the other is to learn something- a vocation so you are ready to do something, but the two don't go hand in hand." In agreement **L.D.** gets specific "I was looking to be a medical student. My ideal job would have been in forensic pathology...the people would be dead why in the heck would I need a foreign language for?" This was followed by much laughter and joking. **K.R.** again voiced that having to retake courses was "wasting his time and money." **S.V.** felt that taking notes was not important to everyone, and that her military experience taught her different strategies that were applicable to the learning environment. "I think especially being in the military you learn to gauge what is important and what's not, in terms of what you are being told. The things you register (learn) are important whether you register it in your head or you learn it on paper. What is important is you learn to put concepts together." **L.D.** contradicts himself about note taking "I made a lot of people

mad, when I was going here. I'd sit here take my pen and pencils, put my notebook up here and doodle. I don't think I took more-maybe three notes while I was here. Tests would come and I would do fairly well, better than some other kids. I DON'T LIKE TO TAKE NOTES! I do read the books, but didn't like to take notes. Shortly after, **L.D.** proudly exclaimed "There was one class I took from Dr. X, I think I took two five subject notebooks of notes for that one class, I mean I got a 96." **S.V.** voiced an earlier theme of Group Two, which was the difficulty these participants had in interacting with the younger students and how it affected their study habits. "One thing I like about being a non-traditional student is I like to study in groups, and that it is kind of difficult to develop this kind of thing in classes that there are not many non-traditional students in my classes. It was really easy in VUB because we were all together and you developed really good friends."

Group One: Narration of Bean's Social Interaction Variables

Important factors noted by Bean (1990) in formulating decisions about staying or remaining in college were the relationships made with other students and faculty that developed into social support systems. Clearly, successful participants in Group One sought out older nontraditional students to develop social support networks. These networks provided support for studying, childcare, emotional and cultural support. There seemed to be a continuum of tolerance, of this group, towards the younger students, ranging from enjoying their company to mild disdain. The unsuccessful participants in Group Two, while acknowledging the differences in the age as mentioned by the first group, and demonstrating a similar tendency for relating to groups of students within

their own age range, showed a marked attitude towards the younger students. They developed an attitude of "us" versus "them". Clearly, they had no time or interest in establishing meaningful or helpful relationships with these younger students. Both groups seemed to have little difficulty with establishing relationships with campus faculty, and in one case those relationships were more positive than relationships with the younger students (S.V.).

Group One seemed to demonstrate a maturity and adaptability to their situation and more easily perceived the advantages of social networking to help them accomplish their academic goals. W.V. notes, "I think there are a lot of nontraditional students here (MSU Billings), and that really helped me, you know my age group had children and were single parents. If I hooked up with them I could vent my frustrations and they could pick me up. You know you can do this, sort of like role models; otherwise it would be a bunch of younger people. I don't think I could relate to them. Knowing that there are other people my age, background. There are other Native American people here I became friends with here. It really helped me out." P.T. I agree that there are a lot of nontraditional students here and they have a life outside of school. I've made friends here and with professors. Its important to have professors who care as much (referring to his advisor)." Both groups mentioned the size of the institution. W.V. commented "the other thing here is it is a little bit small, my first time at Bozeman, I went to a huge lecture hall. I sat way in back and heard the other students talking about parting the night before and that is where my head was. It's small here (MSU Billings) you get more interaction. At least you get to hear everyone's name in class. The smaller the classes the more interactions and the more groups." S.J. had a unique opportunity of being

older, being able to afford college without having to work, and being able to spend more time on campus, was at the other end of the continuum as he relates, "I kinda enjoyed the camaraderie of the veterans, we had a lot in common. I especially liked the younger people. I think some of it was I wasn't a threat to them, like some younger guy, gees I went out to pizza with them. I had some trouble getting use to the language, especially the girls at that time. I got invited to parties, but forget that. No it was exciting hearing what they had to say about what they wanted to do. Young people keep me young. You broaden yourself it's great." The difference between the four-year campus and a two-year vocational was noted by **F.R.** I'd like to make a point about nontraditional students. I'm at COT; there are more nontraditional students than traditional students there.

Almost everybody there works full-time or part-time. I see very few people out of high school." **D.A.**, also a student at COT found work on campus but "when I was out there, I did work study so I didn't have time to socialize. **D.A.** went on to relate that he took the work-study job so that he could do an internship in N.Y. City. He went further to describe the necessity of working with students in his Culinary Arts major. Oh ya, you'd kid each other, you know nobody has a knife at anybody's throat, especially in Culinary Arts (laughter), You had to rely on each other when preparing meals." **P.T.** further commented on the in-classroom relationships with other students. "A lot of times it does (classroom interaction), especially in the College of Business. You are picked out in class to answer questions or presentations. You got to know other people in class to work on group presentations." **S.J.**'s insights on the relationship of friends and class standing were unique. "I think you develop friendships in upper division classes because you have less and less students, you interact more and have a common interest." The influence of

academic major on friendship is followed up by **F.R.** "Our course, in and of itself, it is very individualistic (COT-Computer Networking); you have to be able to carry it all yourself...working on a computer is very individualistic. Our courses are set, our courses are set, and this is what you do." Questions to probe how participants managed their time underscored the environmental pull factors and were addressed more in-depth in the next question. **W.V.** responded, "Yes I did (stay on campus) when I went home it is a different life. I take care of my kids, and feed them. When I am here (campus) I try to take care of everything. I schedule more time to go to the library, to see my advisor, time to meet with study groups here. If I go off campus, it is a different atmosphere."

Group Two: Narration of Bean's Social Interaction Variables

Going to a larger college for many of the participants in Group Two presented a challenge in getting to know people and make friendships that supported their staying in school. **D.L.** finds, "When I went to May Technical College, you walked down the hallway and knew everyone by name and when I came here, I knew three people in the classroom. I was doing good. I knew the guy in back of me, the guys on the side of me. If I knew more than that it was gravy. I went to a grade school that had 58 kids in all eight grades. I was use to small schools. I always knew everybody; here I didn't have a social life. I maybe had two or three people I talked to outside of class". **K.R.** cites the advantage of a community college. "Well, I started at a two-year school, which was in my home town. So when I started college, I would say 75% of the people in college were people I went to high school with and you were a lot more close knit and social with. You came to a bigger school like this (Billings COT). It surprised me the number of

foreign students here and it just got a lot harder to socialize with them and get use to them.” For **C.P** it wasn’t a matter of size or difference in backgrounds of the students, she didn’t know where to hang out. “It was very hard to have a social life, um, if you weren’t acclimatized to where everyone would go to socialize or where they would hangout. It was very lonely.” Having time to reflect back **S.V.** thinks things would have been different. “I think if you had the opportunity to completely focus on college life and move on campus you probable have a pretty normal experience even if you were this age...when you have a family off campus, or got a job, or a whole other social network, there is noting to draw you back or keep you here.” **B.R.** doesn’t agree, it is a different way of thinking associated with age, which determines social relationships. “I disagree with **S.V.** I did live on campus for one year, that it was Rocky, and it was a hippie school. You gravitate to people of your own age. When you have been out of school for awhile, even when you have been in the military, your mindset is different.” Another insight about social interactions in the classroom is offered by **H.J.** “One thing I noticed that was very unusual in large classes...the older students all sat up front and the younger students all sat in the back rows. Either we are all up there to see the instructors...we are in our bifocals or we would like to be able to hear them (laughter). I’d much rather talk to someone in their 30’s or 40’s than I would some kid who is 18 years old. This kid is terrified of me because I look like his grandpa anyway.” This perception is in sharp contrast to **S.P**’s. perception as seeing himself as less of a threat because of his age. The importance of cultural and social groups is commented upon by **R.W.** “Well when I came here I started my freshman year in “94” (MSU Billings) they offered VUB work study and I met all the VUB students here, and I got into AISES, I was the treasurer for

AISES and I got in the Indian Club, so I got to meet a lot of older Indian students like single moms and parents. I got to meet people I could talk to and it really helped me out getting around people I can relate to. I did well because the freshmen class, the group I started with was in my classes like year after year until my senior year and then I faded away. I see them on the streets now and we know each other from school.” Again reflecting back S.V. offers, “I think I would like to have had more freedom and time to establish my relationships on campus. I would have been drawn more towards people my age, and not that I would be hanging with 18 year olds. That would be far too annoying. I probably would have hung out with the faculty! It would have been nice. I would have been more prone to staying in college if I had ties to the campus and to people who were going.”

Group One: Narration of Bean's Environmental Pull Factors

Environmental-pull factors are thought by many theorists of nontraditional student attrition and retention to be the distinguishing factor between them and traditional students (Bean, 1990; Metzner and Bean 1987; Jarvis, 1987; Marieneu & Chickering, 1982). Three sources of off campus “pulls” affected both groups. Family, especially caring and providing for younger children, the lack of finances, and amount of time spent at work. Transferability of credits, or having significant others elsewhere were not factors brought out by the groups and differed from the models of Bean and Metzner. It should also be noted, that the second group, while sharing details of their off campus lives, continually engaged the moderator to explain that institutions did not meet the needs of nontraditional students, that taking required courses was absurd and not

applicable to their "real worlds." It was obviously that the unsuccessful participants held strong values and ideas of what education should be and the priority it held in their life. It differed widely from the participants in Group One. The successful participants described their off campus life. P.T. "I'm single, but my hobby is raising cattle and in the spring I normally would miss some classes, but they (the instructors) always knew. Most of the classes here you can miss two or three, but it makes it difficult. You can have cars that breakdown, and calves that get sick." As one participant mentioned earlier, being a senior had the advantage of increasing your social interactions with other students, but it had its disadvantage as noted by W.V. who found her senior year was really difficult. "I was going to school full time plus I had an internship and work. I had three different cultures that I had to deal with. First, was work, where you had to deal with business and punch the clock kind of thing, reports to finish at work and then you have to go study or meet with students, then you had to go home to feed the kids and be a mom again. Having three cultures to work in was difficult, but it was interesting." F.R. had been through it before and needed to assess his family support before returning. "It was rough when I went to May Technical College. I was doing the same thing, but before I started again, we (family) had to sit down and talk about it. I had already made up my mind I was going to do it (go to college), but I had to explain it to them (his family). We went through this before and it was going to be another two years to finish it. This time my youngest is in junior high school and he understands the commitment." W.V. gave further insight to going to school with younger children; she even noted a positive aspect. "It is really much harder having younger children, but I did it as much for them, as for me. The way they saw it when I got home, I spent time with them, but

when it was bedtime for them, it was study time for me, and they helped me study. They would see what I was going through and hopefully I am their role model. If I can show them I could do it, then they can do it. Another fact was that my kids would bring out their books and we got into a regular routine of study.” **F.R.** expressed his concern even for his older son. “My kid has accepted it. He is the only one at home and I see him a little bit after school other than weekends. I get home at 3:30 and go straight to Riverside to pick him up and then I have to go to work from 11:00 at night to 7:00 in the morning. I sleep three hours, and we are looking at two years of this. Just the way it is. I’m getting too old to be getting by on five hours of sleep. You have to just do it.” **D.A.** didn’t have the same distraction but nevertheless his children were also part of his decision to attend college and perhaps it encouraged one of his daughters to attend later. “I developed a medical problem and retired. I worked college work-study (on campus) and went into my own business. I had two daughters in high school when I started. One daughter followed me into college and we all went to school.” **S.J.**, who didn’t have to work until his senior year in college, reflects what it would have been like. “One thing I agree, I had to work a part-time job my senior year. I finished in three years because I was taking quite a few credits. If I had gotten a job in my freshman year, it would have be very difficult for me because I was getting use to campus, what was expected of me, and as you got higher it was easier because you know what to expect.”

Group Two: Narration of Bean’s Environmental Pull Factors

Focus Group Two faced with similar off campus challenges formed different attitudes and perspectives in handling obstacles. **L.D.** stated, “In my life my kids come

first. It is as simple as that. If it means I have to quite my job to take care of my kids, then it's see ya school. I mean it's that quick." Knowing the demands of children C.P. waited until the right time for her to attend college. She also expressed a personal attachment for going to school and eventual obtaining her degree. "That is why I waited as long as I did to go to college. I waited till my family was grown, my son was 20 years old, and if he got into trouble I couldn't help him anyways. For me, I went to school because it was time for me and time for my future and time to take care of what I needed to take care of--me. Working as a short order cook didn't seem like a good prospect to retire from another 20 years down the road. I took a look at my life and yes my husband at that point had just lost his own business. And he wasn't going to retire. Going to school at that time gave me self-esteem, gave me courage, showed me I could do it and I didn't need my husband's permissions or my son's condolences. I didn't need anything, I needed me." At this point, the focus changed for Group Two. Dissatisfaction within the institutions, students and faculty again emerged. S. V., one of the more vocal participants lead off, "The school despite all the changes, has not really sat down and listened to nontraditional students and say what do you need, how can we help you. I think that is very evident in what we all said about the teachers. They are in the mindset that all they have to do is stand up there and talk." H.J. encourages this direction. "S.V. brought up a great point. She wanted to take classes to enrich herself personally." K.R. continued to bring up that it was a waste of time and money to take course that didn't apply, however it appears that time management also posed a concern. "What I had to work at was how much time am I going to need for this and how much time am I going to need for that. You still have to live and to pay the bills." L.D., who earlier declared it was simply a

matter of his kids over everything else, reflects further. "I guess I needed more discipline. I'd rather play with my kids than crack open a book, but I don't want to take that away from my kids, they only grow up once. It appears that for **D.L.** there exists some personal confusion and conflict in respects to balancing his time and commitments with his children. The fact that he is currently employed full time doesn't seem to allow him any additional time having left school. With one last opportunity to comment on this theme, **S.V.** underscores her previous criticism of her educational experiences. "We are talking about values here. I think that what it comes down to is: What your idea of what is valuable to know at this age is so different than what is valuable when you are eighteen (laughter). What's real, we know what's the real world expects of you and 90% of what they give you here is crap...Sorry it's true. In the long term, its is nice to think we are educating our kids to have some cultural awareness, or to be exposed to new ideas, but when it comes down to what you can afford to spend your time and money on." Not everyone is influenced by **S.V.**'s thinking. **W.R.**, who suffered seriously head injuries prior to school, but who is committed to returning back to college acknowledges the off campus difficulties of older students. "Well, I was pretty busy coming here (college). I would take 12-15 credits and then I'd work two-three hours on campus in my VUB job and go get the kids at day care and grandma would come and take care of them because I had a job that began at six and end at twelve in the night...and then I would fight fires in the summer. I knew that it was just how it went. I was doing ok at school but I wasn't studying much as I wanted to keep up my GPA, I'd sleep on four hours."

Implications/Suggestions for Improvements of MT VUB by Both Groups

As a closing question, both groups were asked to reflect back on their VUB experience in relationship to their postsecondary education experience and provide comments of what worked or could be improved. Both groups expressed satisfaction with the Montana Veterans Upward Bound. Highlighted among their responses was that the program provided a needed transition from the military or work world into the academic environment; it provided an opportunity to increase or get reacquainted with basic academic skills; it provided a social environment to interact with other nontraditional students; it provided personal attention for learning or personal concerns, it provided support for increasing self esteem or motivation to attend school, it served a helpful resources after leaving the program and entering college. Selected comments are provided to illustrate the discussions and feedback given by the participants.

"It prepared me for what I was getting into...back into studying, back into socialization.

We had good instructors. It gave me an excellent change of finishing which I did."

"It gave me insight into what to expect. It told me if I gave it my best shot, I could do it."

"It gave us basic skills and study habits and what to expect. It gave one to one contact."

"I would say the personal contact, being able to talk to staff one on one. VUB is your mom. You could go out there and do your thing, but if you really got in a bind you could always go back to VUB and say I got a problem can you help me. There was always someone there."

"I enjoyed the support. I guess I didn't need a whole lot of support. What they really helped me is to being exposed to the college classroom. They gave you assignments and expected you to do them but there was no grade hanging over your head."

"Even if I was at COT, you could still call and get help."

"VUB helped me gain confidence. There was support in showing you where to go and who to see. The math instructor in VUB at the time was very influential in giving me confidence. I was very fearful (of math) but I aced the class and got 100% on my tests because of him."

"VUB is good camaraderie. It is valuable even if you are not going back to school. It is a cultural shock coming out of the military. When you get out of the military it's like everyone is your enemy. It would be good for all nontraditional students."

"VUB gets you back into studying and all that. There was much more freedom to interact with each other. To encourage each other and have each other teach each other. You felt you could handle this."

"They didn't introduce you to new things right off the bat. They didn't just drop you off at the library and say do a report."

"I am very grateful for VUB, if it wasn't for it, my mind would be still at the 6th grade level."

"Perfection would be a VUB College."

Despite overall satisfaction with VUB by the focus group participants, they were eager to offer suggestions that might have benefited them as they experienced college. The most frequent suggestion was to include an auditing of a college classroom to get a real impression of instructors and the diversity of younger students. Those who entered

VUB in the project start-up years suggested computer training. Since that time a 10-computer station lab is available to current and former students. Some suggested that more career guidance be provided. Career planning practices have varied throughout the VUB years from being mandatory to on request only. There was a great deal of discussion on providing daycare or pressuring the campus to do more about it. Daycare, while not an available grant service, could be addressed by providing information about centers and providers during orientation. It should be noted that those students most in need were attending MSU Billings, which has plans for such a center. Lastly, it was suggested that VUB address health issues more fully as they related to physical and psychological stresses that often resulted from attending college.

Summary of Results

Results of the quantitative analyses provided a complete description of participants who enrolled in the Montana VUB Project from thee 1992 to 1998. Chi-square analyses of selected demographic variables examined relationships between these variables and academic success (graduation and positive persistence.). Findings of the analyses indicated that relationships existed for the variables of age, prior education levels, degree objective, type of institution attended, and final grade point average and the dependent variable of graduation. Relationships were also shown to exist between prior education levels and the type of institution attended and the dependent variable of positive persistence. The results of these findings reject the study's null hypothesis.

Results of the focus group interviews are limited to those participants who participated in VUB at the Billings site. Results from both groups (academically

successful and unsuccessful) indicted that factors related to organizational, social, and environmental-pull factors contributed to participants' decisions to remain or leave college. Syntheses of the study's findings, including both the quantitative and interaction variables illustrated are illustrated in Figures 40-44.

Chapter Summary

This chapter began with describing the Montana Veterans Upward Bound participants based upon selected demographic variables. The relationship of these independent variables to graduation and positive persistence were statistically described. Finally, results from the two focus group interviews were presented as participant profiles, and narration illustrated Bean's four interaction factors of organization, academic, social and environmental-pull variables. These focus groups consisted of only those participants who attended the Montana's Veterans Upward Bound on the Montana State University-Billings campus. This group provided initial insight into the postsecondary experiences of former project participants and provides a basis for further examination of their experiences to the total project population.

Chapter 5 concludes this study. Discussion of the statistical results and focus group discussions are integrated with findings from the literature review. Conclusions and recommendations for future research and changes in policy and services are also presented as part of this chapter.

Figure 40: Synthesis of Background Variables

VARIABLE	GROUP 1 ACADEMICALLY SUCCESSFUL (Participant)	GROUP 2 ACADEMICALLY UNSUCCESSFUL (Participant)
AGE Relationship established for graduation and not positive persistence	+ Provided added maturity (PT) + Older accept the rules (SJ) + Enjoyed, learned from younger students (SJ) + Perceived a lot of nontraditional students on campus (PT) + Perceived as less of a threat to younger males (SJ) - Language of younger girls (SJ)	- Increased dissonance between younger students (BR, PC, HJ, SV) - Different way of thinking (BR) - Liberal hippies vs. conservative military (BR) - Looked like grandpa terrified younger students (HJ) + I'm at COT there are a lot more nontraditional students there (FR) + I don't think age has anything to do with it, there were people older than me (HJ)
GENDER Relationship not established for graduation or positive persistence	NOT MENTIONED	0 I was the only female vet there BR)
MARITAL STATUS Relationship not established for graduation or positive persistence	+/- I'm single & I raise cattle so I have to miss classes during calving (PT)	- I was married, divorced and had a child in the same year (SV) + I was single, kids grown (KR)
PRIOR EDUCATIONAL Relationship established for both graduation and positive persistence	- I attended May until it closed (FR) - It was huge, I got bad grades (WV)	+ I attended May & received a degree (SV) + I did some checking on transcript & thought I can do this (KR)
ETHNICITY/RACE Relationship not established for either graduation or positive persistence	+ There were other Native people here I became friends with (WV)	+ I was treasurer for AISES and got into the Indian Club (RW)
GI BILL ELIGIBILITY Mild relationship established for graduation and not positive persistence	+ Was a big factor for me to be able to do it (PT)	+ I had the GI Bill advantage (SV) - I didn't get the GI Bill at all (KR, CP)
PRIOR YEAR INCOME Relationship not established for graduation or positive persistence	MENTIONED AS ENVIRONMENTAL PULL FACTOR	+/- I had military pay to live for one year. It ran out & I couldn't live on the GI Bill (SV)
DEGREE OBJECTIVE Relationship established for graduation but not positive persistence	- Universities didn't offer what I wanted (FR)	+ I had a definite goal in mind, everything else had nothing to do with it (DA)
TYPE OF INSTITUTION Relationship established for both graduation and positive persistence	+/- When I first came here from LBHC, there were long lines. It was smaller than Bozeman (WV)	+ I went to May they offered degrees, they offered help and they had various ages (CP) + You can go to a Voc Tech & make 2xs as much (BR) + COT had good support (DA) + I attended Rocky, they teacher were involved (BR) + When I went to May you knew all the kids (LD)
FINAL GPA Relationship established for graduation and not used for positive persistence	+ You could bankrupt bad grades (WV)	NOT MENTIONED

0=NEUTRAL RESPONSE +=POSITIVE RESPONSE -=NEGATIVE RESPONSE

Figure 41: Synthesis Of Bean's (1990) Organizational Variables

ORGANIZATIONAL VARIABLE	GROUP 1 ACADEMICALLY SUCCESSFUL (PARTICIPANT)	GROUP 2 ACADEMICALLY UNSUCCESSFUL (PARTICIPANT)
ADMISSIONS	- Admissions/Records lost transcripts 3x (FR) -Registration lines long & lack of staff help (WV)	+ Everything went smoothly (RW) - I went to Rocky and there was little assistance in registering (BR) + I went to MSUB & they showed me how to do it & I never had to see them again (LD)
COURSE OFFERED	NOT MENTIONED	- They wanted me to take a bunch of classes I won't use or need (KR, PC, SV, DL) - Emphasis on core elements especially math & foreign language make it doubtful older veterans to graduate (KR)
SCHEDULE	NOT MENTIONED	- I had a small scheduling problem & went to the administrator, he was no help - I think it's a school problem. - - It takes 5 years to complete a four year degree (BR)
RULES & REGULATIONS	+ Academic Bankruptcy Available (WV) + Marine Corps in regimented so I just accepted and followed rules (SJ)	- General Ed requirements were a major deterrent to this group
ACADEMIC SERVICES	-Academic had a 5 week waiting list (PT) +VUB straighten out problem (PT) + SOS helped a great deal (WV) + Writing Lab available (SJ) + Friendly library staff (SJ)	+ VUB sent me to lady for review of academic credits (HJ) + Friendly library staff (CP) - As far as MSU few people cared (advisement) (CP)
SOCIAL SERVICES	+ VUB always had the coffee on (SJ) + VUB BBQ's chance to meet other people, college staff (SJ) - Lack of childcare Other single parents co-opt (WV)	+ VUB BBQ's chance to meet other people, college staff (DL, HJ) - Lack of childcare (CP, SV, RW) - Parking is horrible & expense (HJ)
FINANCIAL AID	NOT MENTIONED	+ Everything went smoothly I was getting paid (RW) 0 Had State Rehab, never had to contact financial aid (DL)

0=NEUTRAL RESPONSE +=POSITIVE RESPONSE -=NEGATIVE RESPONSE

Figure 42: Synthesis of Bean's (1990) Academic Interactive Variables

ACADEMIC INTEGRATION VARIABLES	GROUP 1 ACADEMICALLY SUCCESSFUL (PARTICIPANT)	GROUP 2 ACADEMICALLY UNSUCCESSFUL (PARTICIPANT)
STUDY SKILL, HABITS	+ I made a commitment to graduate & allotted time to study, review attended classes and sought help (SJ) + My study skills have improved after one semester (FR) + I had a strict schedule and regular study mates (WV) + I schedule more time on campus to go to the library, see my advisor or meet study groups (WV)	+ I has good study habits and attendance (LD) + I feel my study habits were really good they were not the reason I dropped out (RW) <u>-I guess I needed more discipline.</u> <u>-I'd rather play with my kids than crack a book (LD)</u> -I wasn't studying as much as I wanted to keep up my GPA (RW)
RELATIONSHIP TO FACULTY	+ I made friends with the professors here (PT)	-/+ At COT I had one instructor when he spoke I could hardly understand him, but we talked it out (DA) <u>-I had to take a course from an instructor who assailed my daughter (DA)</u> + Many faculty at Rocky were WWII veterans and that really helped (BR) 0 teachers are the same, some I wouldn't give the time of day, other you could sit down with (LD) + I had instructors say you don't need this because of your life experiences (SV) - Instructors were too stressed out there was no room for extra help (CP) - Teacher a MSUB were only interested in getting students in & out (BR) -/+If I had more time on campus, I would have hung out with the faculty
MAJOR CERTAINTY	NOT MENTIONED	NOT MENTIONED
ABSENTEEISM	+ During calving I made to miss 2-3 days but I told my instructors	A number of students mention that they had good attendance & study habits

0=NEUTRAL RESPONSE +=POSITIVE RESPONSE -=NEGATIVE RESPONSE

Figure 43: Synthesis of Bean's (1990) Social Interactive Variables

SOCIAL INTEGRATION VARIABLES	GROUP 1 ACADEMICALLY SUCCESSFUL (Participant)	GROUP 2 ACADEMICALLY UNSUCCESSFUL (Participant)
CLOSE FRIENDS ON CAMPUS	<u>- No real friendships have formed, I have limited time (FR)</u> + I kind of enjoy the camaraderie of the veterans (SJ) + I think you develop more friendships in upper division class, there are less students and a common interest (SJ) + Got to know other students having to make class presentations (PT) <u>+ I got to meet a lot of older Indian students like me (WV)</u>	+ I got along with everyone. This had no effect on my leaving (LD) + Classes were small we could share in other life (CP) -I didn't take much in the social life, - - I'm in my 50's and too busy (KR) - I developed several good acquaintances but no real close friendships (SV) - I had no social life (BR) -I had skin problems older than most students (HJ) -Kids have a rather active social life, but we are old (HJ) -I just came to take classes and really don't take part in it (KR) -Not that I would hang around 18 year olds that would be too annoying (SV)
INFORMAL CONTACT WITH FACULTY	+ I thoroughly enjoyed interacting with the other student & faculty (SJ) + Faculty really helped me (WV)	+ I had some really good support from the staff & fellow students (DA) + Instructors spent much time with you outside of class (Ed America) (CP)
SOCIAL SUPPORT SYSTEM	+ Family helped me vent out frustration (WV) +Although going to school is time consuming & stressful, I did it for them as much as for me (her children). They helped me (WV) + My ex wife was very supportive and helpful	+School life on campus was good. I was involved with AISES and the Indian club (RW) -/+ In March my husband took me through bankruptcy and moved out everyone at school knew and helped me out (CP)

0=NEUTRAL RESPONSE +=POSITIVE RESPONSE -=NEGATIVE RESPONSE

Figure 44: Synthesis of Bean's (1990) Environmental Pull Variables

ENVIRONMENTAL PULL VARIABLES	GROUP 1 ACADEMICALLY SUCCESSFUL (Participant)	GROUP 2 ACADEMICALLY UNSUCCESSFUL (Participant)
LACK OF FINANCES	WAS ADDRESSED INDIRECTLY FROM NARRATIVE RELATED TO WORK ROLES & FAMILY RESPONSIBILITIES	-/+ My kids come first, I need to feed them (DL) - You have to live & pay the bills (KR)
SIGNIFICANT OTHER ELSEWHERE	NOT MENTIONED	NOT MENTIONED
OPPORTUNITY TO TRANSFER	NOT MENTIONED	NOT MENTIONED
WORK ROLE	-Working f/t, school, study time had a negative impact on family relations (FR) - I had 3 different cultures to deal with work, school, family (WV) +/- I had to get a job in my senior year & if I had to work in my freshman year I not have made it (SJ)	- I was working full time at night & was at school all day (CP) -While in school I had 2 job & 2 children to feed. This is that got me to leave. (RW) -I got a job a Western sugar & it helped me pay the bills. That is what I needed (DL) -
FAMILY RESPONSIBILITIES	+ My family & kid accepted it. It was only for 2 years. I pick him up a 3:30 go to work from 11pm-7pm and then to school (FR)	- <u>My husband lost his business,</u> <u>he was depressed, I needed to</u> <u>support the family (CP)</u> +/- My kids come first (LD) + Living with my mother while in school was the best motivator as anyone to go to school & finish (BR) -Getting married, pregnant and divorced forced me to earn a living and support myself (SV)
HEALTH	+ I had a medical problem forced me to retire & I went to school (DA)	- <u>Had a stroke & heart attack &</u> <u>spent 1 ½ in rehabilitation (KR)</u> - I had a heart attack (HJ)

0=NEUTRAL RESPONSE +=POSITIVE RESPONSE -=NEGATIVE RESPONSE

CHAPTER 5

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The problem addressed in this study was the lack of information describing selected characteristics of Montana's Veterans Upward Bound participants who had entered postsecondary education, and a lack of understanding about those experiences as they related to the Billings VUB participants' academic success or failure.

The study utilized descriptive statistical methods to depict participant profiles based on selected demographic characteristics. These demographic variables were further examined through Chi Square analyses to determine the relationship of these independent variables to the dependent variables of graduation and positive persistence (academic success). Some of these independent variables were selected to correspond to background variables noted in the theoretical models of Bean (1985) and Metzner and Bean (1987). Other variables selected corresponded to cited research on veterans as students, or to characteristics unique to the Veterans Upward Bound Project. A qualitative design using focus groups was used to interview former Montana VUB participants. These interviews were conducted to illustrate the postsecondary experiences of Billings Project participants, as related to their academic success or failure. Focus group theme questions were guided by Bean's Longitudinal Model (1990), as they related to each of the model's four interaction factors, which included: organizational variables, academic interaction variables, social interaction variables and environmental-pull

variables. A closing group question asked participants to reflect back upon their postsecondary experiences, and suggest improvements in Project services and practices. A noted delimitation to the qualitative study excluded remote tribal college site participants. The study was also limited because tribal college participants from colleges close to Billings did not attend the interviews. These boundaries restricted insights pertaining to former VUB participants attending tribal colleges. This chapter begins by summarizing the study's findings related to the four research questions, which serve as the basis for further discussion and conclusions.

Summary of Findings

1. Based upon selected background and Project demographic characteristics, how are Project participants who have entered postsecondary education best described?
 - The majority of Project participants had annual taxable incomes of \$5,000 or less.
 - The majority of Project participants are male.
 - Participants are likely to be either Native American or White.
 - Project participants who entered postsecondary education are most likely to attend either a four-year institution or a tribal college.
 - Academic success appears greatest for Project participants attending a 2-year institution or tribal college.
 - The majority of Project participants achieved at least a grade point average of 2.0 or better in their college work.

2. What is the relationship of selected demographic variables of Montana's Veterans Upward Bound participants, who entered postsecondary education, to degree obtainment and non-graduate persistence?
 - The demographic variables for age, prior educational level, degree objective, type of institution attended and final grade point average were found to have a strong relationship to graduation.
 - The demographic variables for prior educational level and the type of institution attended were found to have a strong relationship to non-graduate positive persistence (enrolled with a GPA of 2.0 or better).
3. What are the important postsecondary experiences that contributed to the academic success or failure as illustrated by the Billings Project participants?
 - It was suggested that the Bean's (1990) interaction factors related to organization, social and environmental-pull factors variables most strongly influenced academic success or failure.
 - Bean's (1990) interaction factor related to academic variables was suggested as least likely to influence decisions to leave or remain in college.
 - All participants suggested that they were adequately prepared and had the necessary study skills and habits to be academically successful.
 - Successful participants suggested that their military experiences contributed to their academic success by providing greater maturity, self-

discipline, opportunity to earn college credits and exposing them to diverse cultural experiences.

- Unsuccessful participants suggested that their military experiences created a disparity between them and traditional age students because they were older, more conservative and more goal-orientated.
 - Participants of the unsuccessful group mentioned health as factor influencing their decision to leave college.
4. What are the implications of these experiences (Billings participants) for improving the Billings VUB Project?
- All participants suggested a need for providing more information or advocating a need for childcare.
 - Unsuccessful participants suggested a need for attending or auditing a college level class to increase opportunities to interact with younger students and campus faculty.
 - Participants from both groups suggested that the GI Bill was an important incentive to attend college; however, receiving it penalized them from receiving full federal financial aid. The 10-year delimiting date resulted in many of them needing the financial support, but being excluded from the benefits they felt they had earned.

Further discussion of these findings in relationship to the literature reviewed is presented in the order of the research questions explored in this study.

Discussion of Descriptive Findings

The first research question of this study guided the quantitative investigation to organize Project participant demographic data to describe veterans who enrolled in the Montana VUB Project from 1992-1998, and subsequently enrolled in postsecondary education. A brief summary describing this data is presented in the student profile. A more in-depth discussion of descriptive data based on selected demographic variables and chi square analyses that were used to investigate possible relationships between these variables and academic success follows.

Student Profile

The use of quantitative data within this study sought to provide a descriptive profile of the Montana's Veterans Upward Bound participant and to examine the relationship of selected demographic independent variables to graduation and positive persistence (academic success). Based upon the Chi Square analyses, we can assert with some degree of certainty that the "typical" veteran participating in the Project might fit the following profile:

The Montana Veterans Upward Bound participant is likely to be male (84%) and on average be 34 years old. Many of the participants are married (47%), and have earned prior college credit before entering VUB (57%). The participant is more likely to be Native American (46%) or White (51%), may receive (52%) or may not (48%) be eligible to use the GI Bill. The participant is likely to have earned less than \$5,000 in the year prior to entering VUB (59%), be pursuing a four-year (50%) or two-year (47%) degree, and attending a four-year institution (50%) or a Tribal College (46%). Finally, the

participant is likely to have achieved a 2.0 GPA or better in college work (72%) and has 45% chance of graduating or maintains satisfactory persistence during a six-year period.

This profile is important to the Montana Project because it not only confirms achievement of Project goals but it provided useful information needed to modify Project services and practices. The profile confirmed that the Project is reaching low-income and needy veterans. It confirmed service to Native American and female veterans. Lastly it confirmed that the majority of Project participants are academically prepared to undertake college level work

Discussion of Selected Demographic Variables

This was an initial study concerning Montana's Veterans Upward Bound. Comparisons cannot be made to other VUB projects, nor can accurate comparisons of findings be made to national educational measurement, because of the uniqueness (Montana natives and residents) of the individuals examined. National educational statistics, however, are presented as a backdrop to encourage thinking about educational trends in relationship to the Montana VUB Project success. This section provides for the discussion of findings of analyses, which examined the relationships between selected participant demographic variables, and the dependent variables of graduation and positive persistence (academic success). Discussion of each independent variable references previously cited studies, puts forth assumptions, and suggests inferences regarding the findings. Gay (1996) cautions, however, "that inferences concerning whole populations are only probability statements; the researcher is only probably correct when he or she makes an inference and concludes that there is a true differences, or true relationship, in

the population" (p. 505). It should be cautioned that while the quantitative analyses examined demographic characteristics of all Montana VUB Project participants who entered postsecondary education, only Project participants who attended the Billings site participated in the focus group interviews. Hence the findings are relative to only these participants. With these cautions stated, a discussion of the relationships between selected independent variables and academic success follows.

Age

Descriptive statistics revealed that from 1992-1998 the Montana Veterans Upward Bound placed 76% of its participants in postsecondary education. Of these, 45% were defined as academically successful by having graduated (22%) or demonstrating positive persistence (23%). National Center for Educational Statistics does not track veterans as a subcategory, but found that among first-generation college students 50% graduated and 13% were still enrolled after a four-year period (Condition of Education, BSP: 90/94). The finding that close to 30% of the veterans enrolled in the Project were between the ages of 17-25 (27.1%) indicated that the Project is attracting a number of veterans who would appear to benefit the most from Project services and pursuing a college education. This group of veterans has had sufficient time to complete a two or four-year degree and enter competitively into the workforce. They are more likely to be single and eligible to receive the GI Bill. What is disturbing about this finding is that this age group has the lowest rate of academic success (36%) for Project veterans. The highest academic success rate for the Montana VUB participants was found among veterans who were 31-40 years of age (71%), and among veterans age 36-40 (60%).

While some researchers attributed greater academic success to being more mature and responsible (Jarvis, 1987; Marienau and Chickering; Burns, 1974; Henderson, 1977), a better understanding is needed. The study's finding, indicating greater academic success with older students, contradicts NCES statistics that indicate students entering college at age 18 or younger were five times more likely to graduate than those student entering at age 30 (NCES, Conditions of Education 1996, Indicator 10, page 212). It can be concluded from the descriptive data that those Montana VUB participants in middle age have a greater probability of academic success. It should be cautioned, however, from the focus group discussions, especially Group Two (academically unsuccessful) that being older created a dissonance with younger college students, and ultimately influenced their "institutional fit". Reasons explaining the discrepancies of academic success related to age did not emerge from this study, but beg for further study.

Age was frequently mentioned as a factor contributing to the academic success of both veterans and nontraditional students (Jarvis, 1987; Burn, 1774, Henderson, 1977, Chapman, 1983). Data from this study suggested that a relationship existed between age and graduation, but not for age and retention. This ambiguity might be explained by examining the age intervals of the participants that indicated: *i*) the greatest percentage of veterans (53%) was post-Vietnam Era veterans (after 1975, ages 26 to 45), *ii*) twenty-seven percent (27%) were recently discharged veterans (ages 17-25), and, *iii*) approximately seventeen percent (17%) were Vietnam or Vietnam Era veterans (ages 46-60). Data from this study indicated that veterans of the post-Vietnam era were most likely to graduate and experience academic success. It might be suggested that veterans at this age interval were: more likely most to have made a permanent transition from the

military environment to the civilian sector; were more likely to have secured and maintained a form of employment; were more likely to be married, and might have been more likely to seek short term educational objects as a means of seeking promotion or greater salaries in their current positions. In these cases, it is likely that a certificate or two-year degree might be sought more actively and obtained, rather than pursuing a four-year degree (which would have lowered graduation rates for this age interval).

The lower rates of graduation of Vietnam Era and older veterans might be attributed to a lesser degree, to the fact that these veterans may be seeking a degree as a measure of personal success (Roberson, 1977), or to represent an "adult life event" (Cross, 1981) in which the individual has the time and resources to pursue further education. In Boshier's (1973) terms this group of veterans may have been "growth motivated" rather than "deficiency motivated" to attend college.

The study found that veterans between the ages of 17 and 30 were more likely to graduate than veterans of the Vietnam era. These findings are similar to the National Center for Educational Statistics Report (NCES) on the Condition of Education, which found that students below age 30 were more likely to graduate. It can be suggested that reasons for higher graduation rates among younger Project veterans might include: a greater probability of being single, receiving the GI Bill, and having fewer financial responsibilities. It can also be argued that those veterans between the ages of 36 and 40 were more likely to be married, have family responsibilities, be ineligible to receive benefits of the GI Bill, and remained more focused, selecting shorter degree objectives. The most recent research of Atwell (1999), however, concluded that there was not a statistical difference between age and graduation. However, his sample was very

different from the population in this study. His participants consisted mainly of younger, single, white students.

This study confirmed the relevance of including the variable of age as a background variable, when trying to explain attrition and retention in higher education programs of veterans and other not-traditional students.

Gender

As expected, the majority of the participants in this study were male (84%). The percentage of females in the Project (16%) exceeded the current proportion (14%) of females on active duty. It is interesting to note that 45% of the females represented in the study were Native American (MSU Northern VUB Program Compliance Report, 1992-1998). The strong cultural value given to veterans and warriors, as well as poverty and other social factors existing on the reservations, could account for the large number of Project Native American females who had entered the military. These cultural influences would be consistent with Holm's (1996) findings that Native Americans viewed the military as a means of carrying on family traditions, honoring a sense of duty, and obtaining respect. Only one Native American female participated in the focus groups (W.V.). She had attended VUB both at a tribal college (Little Big Horn) and the Billings site.

The experiences of the Billings site participants did not support the findings of Feiger (1991), which indicated that a greater percentage of women cited family responsibilities as causes for attrition. It appeared that among males and females--married or head of households, family responsibilities were equally cited for leaving

school. One male participant simply stated it was a choice between his kids or school (L.D.).

The statistical results of this study indicated that gender was not related to academic success. The probability of graduating whether you were a male or female was found to be approximately the same (20%). This outcome differed from those in Bean and Metzner's (1985,1987) studies on non-traditional attrition and retention. These authors found that gender was an important background variable to both retention and attrition. Female focus group participants expressed experiences that seemed to differ from Brendan's (1985) earlier findings that non-traditional females were less likely to develop strong social bonds within the institution and were often part-time students with outside responsibilities. The four female focus group participants were all full time students with outside responsibilities. Three of these participants (W.V., B.R., and S.V.) indicated some degree of social interaction within the college they attended. They indicated that many of the bonds they established, not only assisted them in their studies, but also led to lasting friendships.

There were other factors that could have influenced the graduation rates of females, making them comparable in proportion to male graduation rates. Although only 16% of the population of interest was female, 45% of the females were Native American. The number of Native American females who attended Tribal Colleges, and obtained two-year degrees contributed strongly to the comparative graduation rates of men.

Gender was not related to positive persistence, although a slightly higher percentage (19.2%) of females were successful in proportion to their percentage of the

total population, when compared to male positive persistence (80.8%) that comprised 83.5% of the population.

The proportion of females participating in the Project suggested that the Project has been effective in outreach and enrollment of Montana's female veteran population. This is especially true of Native American females who comprised (46%) of the Project's female population. It can be suggested that gender alone may not be an important factor to academic success or failure, but rather, as illustrated by the focus group discussions, it may be the role within the family that accounted for creating additional stress related to persistence or attrition. The role of being single parents and head of household might be more important than whether the participants were female or male.

Marital Status

Nearly one-half (47%) of the study's participants were married. While the study did not investigate whether participants were married before, during or after military service, the large proportion of married participants is consistent with the data cited in Chapter 2, which noted that the current military is increasingly married (60%) and that sixty-eight percent (68%) of the Native American veterans were married. The majority of Native American Project veterans, who were married, were also likely to be male. According to Stein (1990) the majority of females at tribal colleges were more likely to be single and head of households.

A relationship between marital status and graduation was not found. There was only a slightly higher probability of being married and graduating (21%) than being single and graduating (18%). Academic success was fairly consistent among the

categories of married veterans (45%), single veterans (48%) and divorced veterans (45%); however, nearly one-half of the graduates were married (49%). Again, the study by Atwell (1999) found that the relationship of marital status to graduation was statistically significant. As earlier mentioned, his sample was less diverse, consisting of greater proportions of single male students. The research of Bean (1985, 1990) and Metzner and Bean (1987) did not identify marital status as a significant background variable in their studies on non-traditional student retention and attrition. However, the focus groups illustrated several factors associated with marital status, such as the number of dependents and being a head of household, might better "fit" into the "environmental-pull" factors described by Bean (1990).

The discussion of children became a noticeable theme in the focus group interviews. However, the numbers of dependents, the household status of the student, and the participants' relationships with spouses were not variables examined in this study. The subject of dependents was, however, brought out in the focus groups, most notably; participants expressed concern for their children. Children provided either the motivation for staying in school for the parent who felt strongly about providing a role model for them (W.V.), or as a cause for leaving, for the parent who felt his children were more important than his remaining in school (L.D.). Further examination of dependents as an independent variable may prove useful in better describing the influences of marital status on academic success of non-traditional students.

Marital status was also independent of academic success when defined as positive persistence. There was a slightly higher probability of positive persistence if single (36%) compared to being married (30.4%). This slight variation was reversed in

comparing marital status and graduation. Nearly seventy-percent (69.6%) of the unsuccessful participants were married compared to sixty-four percent (64%) of the unsuccessful single participants. Divorced participants had a slightly higher probability of graduating than married veterans with the number of separated participants being insignificant. These findings suggest that academically unsuccessful married participants might be more likely to be older, without support of the GI Bill and experiencing greater environmental-pull factors, related to family. For married participants who proved successful it might be suggested that they were better able to integrate family concerns with their educational goals. Likewise, it might be implied that successful single veterans were more likely to receive the GI Bill, and have less environmental-pull factors contributing to a higher probability of being successful. The lack of success among single Project veterans could be contributed to the fact that they were less likely to have earned prior college credit, had a shorter period of transitional and perhaps had unclear educational objects.

The unimportance of marital status as a background variable to student retention or attrition conforms to the nontraditional models theorized by Bean and Metzner (1985, 1987). As mentioned earlier, the only finding showing a relationship of marital status to academic success (graduation) was the recent work of Atwell (1999). His population, however, was 75% single. It cannot be concluded, as commonly thought, that being married in and of itself is related to academic success. However, as indicated by the comments of focus group participants, having dependents may play a greater role in influencing academic success or failure, rather than having a spouse. Participants in Group One noted that their status as a "student" provided an incentive to serve as a role

model for their children. They accommodated the demands of being a student and being a parent by establishing a "shared study time". Unsuccessful participants in Group Two viewed the student-parent dilemma as having to make a choice about spending time with their children or doing schoolwork.

Prior Educational Level

Prior education levels characterizing participants provided some interesting discussion. While VUB is intended to encourage and prepare veterans for postsecondary education, it was not their initial college experience for fifty-seven percent (57%) of the Montana VUB participants. This finding is again limited because the study did not investigate whether VUB veterans entered college prior, during or after the military. The reasons for their initial entry into college and their reasons for leaving certainly lend themselves to further study. These finding might also lend support to Miller's (1967) theory of adult participation. He concluded that adults entering college with low personal needs and strong social support would result in high participation, followed by high drop out. Perhaps veterans initially prompted by family and social emphasis on higher education, entered college without full commitment or clarity of educational goals, which resulted in them dropping out, and entering the military. Reasons for entering the military and family background were not focuses of this study, but additional research would provide some insight into this possibility. During their time of military enrollment, many of the participants had more time to mature, acquire greater self-discipline, clarify personal goals, and obtain additional financial resources to attend college. While focus group participants indicated their expectations and reasons for

entering the Project, their reasons for entering the military were not directly investigated by this study.

Participants' prior educational levels were found to be very strongly related to academic success. Those with prior college credits comprised almost sixty-percent (57%) of the population of interest and accounted for over seventy-percent of the graduating students (71%). They were more than twice as likely to graduate, as those participants merely having a high school diploma or GED (29%). As mentioned previously, the exclusion of data regarding the number of credits attempted, the number completed, the type of courses taken, grades received, and the period that credits were acquired limits the inferences that can be made and deserves further analysis. It is the experience of this researcher, however, that in reviewing the available academic transcripts of the focus group participants, most college credits were earned prior to military service and most of these participants were not academically successful. Regardless of their prior lack of academic success, their previous educational experience may have provided the necessary orientation and motivation for these individuals to overcome earlier obstacles and succeed the second time around.

The probability of successful persistence was almost twice as likely (64.6%) for participants who earned prior college credits than for those veterans with only a high school diploma or GED (35.4%). Seventy-five percent (75%) of the high school graduates were not demonstrating positive persistence compared to a little over sixty percent (60.2%) for veterans with college credits. If it is assumed that the majority of college credits were earned prior to military service, and that the college experience was less successful, it might be inferred that participants acquired greater maturity, discipline,

and a better focus upon returning to school. This advantage; however, may be offset by a greater likelihood of increased environmental pull-factors such as marriage, job and dependents.

The marked academic success of participants who had prior college (55%) compared to participants having only a high school diploma or GED (35%) was evident and found to have a strong relationship to academic success (graduation and positive persistence). The large number of veterans entering the Montana VUB Project who have prior college credits presents a challenge to the current regulatory guidelines which interprets eligible veterans are either veterans who are not admissible to college or "high school graduates who have delayed pursuing postsecondary education" (CDFR 84.047A, 645.14). This perception and definition of participants are no longer accurate, given that most states, like Montana, have an open admissions policy for nontraditional students and given that veterans as adult non-traditional students are very likely to experience dropout and stop out patterns that reflect "life events" Cross, 1981). Veterans in the Montana VUB who have prior college credits are a majority (57%). The group interviews provided additional insight in regards to prior college credits earned. The earning of previous college credits provided an added incentive for many of the VUB participants in the focus group interviews to return to college. For these veterans, VUB presented a need for academic refresher courses and an opportunity to transition into the "college mode." Academic refresher courses are a required service allowable by current federal regulations. For those participants who had previously earned academic credit, which was unsatisfactory, VUB was an opportunity to improve basic academic skills required to successfully matriculate. Findings from the focus groups suggested that the Montana

VUB provided both of these mandated services at the Billings site to address different academic needs.

Race/Ethnic Origin

The variable of ethnic origin/race was not found to contribute to academic success. The ethnic composition of the Montana's VUB fell within two major groups: Native American veterans and veteran who were classified as white. The large Native American veteran population within the study was more likely to have been comprised of participants in VUB at one of Montana's seven tribal colleges, while the majority of non-Native American veterans had enrolled at the MSU-Billings site. The lack of Native American VUB veterans from the tribal colleges restricted the understanding and information pertaining to the perspective of being a VUB Native American veteran enrolled at a tribal college. It is interesting to recall that Johnson (1995) found (among black students) that attending college was dependent upon its close proximity to the student and a preference for two-year institutions. The tribal colleges are often a part of a community that the veteran has chosen to live in. They provide easy access to learning, are less costly, and allow a better "institutional fit" based on cultural beliefs and practices. This situation describes the Project participants who elected to attend the tribal colleges on their reservations. Two of the Native American focus group participants (R.W., W.V.) noted the importance of finding persons of their ethnic background to relate to while attending school. Future studies of Project participants at the tribal colleges offers an exciting opportunity for understanding their educational experiences in

relationship to Native and non-native veterans who attend different tribal or non-tribal colleges.

Both Bean (1985) and Bean and Metzner (1987) noted the importance of ethnicity as a background variable influencing retention and attrition. This study found no relationship existing between ethnicity and graduation or persistence (academic success). This finding differs not only from the theoretical models of Bean and Metzner (1985, 1987), but also from other research previously cited (Murguia, Padilla, Pavel, 1991; Richardson & Skinner, 1992; Henderson, 1991; Wells, 1990). The large Native American population of the study and the small number of other ethnic groups could have resulted in findings that differed from previously cited research. Quantitative findings suggested that Native American veterans had a slightly higher probability of graduating (50%) than veterans who are white (48%). As with the variable of age, the degree objective (two-year) may have greatly influenced the outcome regarding the relationship established between ethnic background and graduation.

There was a slightly higher probability of being a Native American participant demonstrating positive persistence (34.1%) than a participant who was white (32.7%). Other categories of race (Black, Asian, Hispanic) were less than three percent of the total participants and deemed insufficient for drawing any conclusions. As mentioned earlier, the slightly higher positive persistence of Native American veterans might be contributed to their tribal college attendance, and their declaring two-year, rather than four-year degree objectives.

GI Bill Eligibility

The eligibility and use of the GI Bill did not show a quantitative relationship to academic success. However, as mentioned earlier, focus group participants were clear that it enabled them to attend college. A slightly higher number of Project veterans were eligible and received benefits (57.7%) than those not eligible (42.3%). The influence of the GI Bill on academic success was very similar to participants who were ineligible or not using VA benefits. Participants receiving monthly benefits experienced a slightly higher rate of academic success (47%) compared to those that did not (46%). Insights regarding this variable to academic success are complex. It is known that the GI Bill is calculated as earned income on federal financial aid forms, and hence lessens the amount of other financial aid eligible to veterans. In these cases the GI Bill may serve as a detriment to receiving adequate federal financial aid to attend college. It also became evident through focus group discussions that the monthly award of the GI Bill is inadequate for Billings's participants to attend college and support a family. The focus group interviews also indicated that the majority of the Billings participants in the Montana VUB Project worked, with some working two jobs to continue their education. Finally, it appears that the use of the GI Bill among all VUB participants who entered postsecondary education (47%) was higher compared to Kime's (1993) national finding that only 40% of the veterans eligible for the Montgomery GI Bill are using the benefits. Focus group participants acknowledged the role of the Montana VUB in making them aware of both their veterans' educational benefits and other state veterans' benefits.

The probabilities of demonstrating positive persistence by participants receiving benefits are only slightly higher (35.4%) than those veterans not eligible (30.1%).

Insights made earlier regarding the offset of the GI Bill by federal financial aid policy and the likelihood of those not being eligible as being married, older and subject to greater environmental-pull factors apply here, as well. As illustrated in the study's focus group, the GI Bill was an important factor for all participants in their decision to attend and remain in college. However, the possibility exists that because the current educational benefits are inadequate to sufficiently meet college expenses, many veterans enroll in college to obtain their benefits as a temporary solution to current financial problems or temporary unemployment, rather than, as a means to obtain their education. This behavior may reflect the lack of a strong relationship between the GI Bill and academic success, despite it being so strongly acknowledged by those who successfully completed their educational goals. Better pre-benefits counseling, assessment and approval of shorter training programs could reduce this abuse of intended purpose, and prove of greater benefit to veterans.

Prior Year Income

Prior year taxable income is a variable unique to all Veterans Upward Bound projects. It is an eligibility requirement of the Department of Education for enrollment in Project services. Two-thirds of the VUB participants must be both low-income and first-generation college students. The income variable is obtained to establish low-income eligibility. It was selected in this study to exam the extent of poverty among Project participants, and served as a backdrop for examining income levels as related to academic success. There should be some caution in using this variable in discussing the relationship of this variable to academic success, since it does not represent an accurate

income indicator at the time of enrollment in VUB, nor does it represent taxable income at the time of, or during postsecondary enrollment. Based upon the descriptive statistics generated by this study, it can be suggested that the majority of veterans served by the Montana Veterans Upward Bound Project are low-income with 76% of them earning less than \$10,000 one year prior to their enrollment in VUB. The focus group interviews did not reveal whether their VUB enrollment and subsequent enrollment in higher education was influenced by the lack of income. This remains an area for further research. Other findings related to income and academic success suggested that there was an average 45% success rate for the Montana VUB participants with incomes between zero and \$20,000. The rate of academic success rises sharply (56%) for those participants who had incomes above \$20,000 a year prior to their VUB enrollment. This finding was limited because these participants comprised only 11% of the participants studied. Based on the descriptive data and illustrations from the focus group discussions, income was related to academic success, if not directly than certainly indirectly. The majority of focus group participants interviewed revealed the need to work full-time or part-time jobs while attending school. One particular veteran, who did not have to work because of a retirement and pension plan, noted that without this income it was unlikely he would have graduated (S.J.).

Overwhelmingly, participants of the Montana VUB had a very low income. Some thirty-nine percent (39%) of the participants had no income prior to enrollment, and fifty-eight percent (58%) of the participants had earned less than \$5,000, in the year prior to their enrollment. These are not individual statements of income by participants, but verified IRS information. Clearly, the majority of the participants served by the

Project were living in poverty. Determining whether this was a motivator for enrollment in VUB to seek higher education was not a focus of this study, but as indicated earlier this is a strong possibility. It is the opinion of this investigator that the majority of VUB participants enroll not because of careful planning, but because of personal crisis, and a desire to improve their lives. While not a background variable noted in the selected theoretical models, income certainly provides some measure of social-economic status and perhaps is a strong environmental-pull factor among VUB participants. Nearly forty percent (40%) of the participants in the study had no prior income. However, they accounted for forty-two percent (42%) of the graduates. Veterans within the income bracket of \$15,001-\$20,000 had the greatest proportion of graduates (32.1%), followed by the veterans with no prior years income (21.8%). Assumptions can be made that because the data represents information prior to Project enrollment it does not represent participants' true financial status once they entered college. In fact, it is likely, especially for those veterans who had no prior income, that attending college provided income supported by the GI Bill, federal financial aid and/or employment.

Veterans earning \$20,000 to \$25,000 comprised only 4.6% of the population (n=11), however, over fifty percent (54.5%) of veterans in this income bracket demonstrated positive persistence. This might suggest that these veterans had sufficient resources to attend school, but were motivated to persist with hopes of increasing their incomes by further education. Whereas, the veterans in the income bracket \$25,001-\$30,000 had only a 10% probability of positive persistence. This could indicate they had a more comfortable income, and were not as motivated to seek education as a means to a higher income resulting from a new career. A rise in positive persistence increased for

those veterans earning \$30,000 or more. This finding could imply that these veterans may have held steady jobs and were seeking certification of degrees to meet requirements for positions they already held. Veterans earning \$15,000 or less seemed to have a slightly greater probability (30%) of maintaining positive persistence. It should be noted; however, that participants earning \$5,000 or less comprised close to sixty percent of the unsuccessful participants (58.3%). These finding also support earlier comments made regarding the use of the GI Bill.

Degree Objective

Degree objective, type of institution attended and grade point average (GPA) indicated strong relationships to graduation. There were no graduates with a grade point average (GPA) less than 2.0. Nearly one-half (46%) of the graduates had a better than "average" GPA of 3.0-3.5 and nineteen-percent (19%) achieved grade point averages (GPAs) between 3.6-4.0. It is interesting to note that the proportion of graduates with a GPA of 3.0-3.5 (33.3%) is slightly higher than the proportion of graduates having a GPA of 3.6-4.0 (27.1%). GPA is recognized as an important academic outcome in all theories related to nontraditional attrition and retention. Both Bean and Metzner indicated that GPA is directly linked to dropping out. This may seem obvious, since most institutions only allow students with less than a 2.0 GPA one semester of probation before suspending or expelling them.

The psychological impact of GPA is not mentioned as a factor in current theories on non-traditional student retention. It is the opinion of this researcher that the Bean and Metzger attrition and retention models (1985, 1987,1990) neglected to show a

relationship direct or indirect between GPA and psychological outcomes, which are thought to directly influence decisions about retention or indirectly influence dropping out. This oversight ignores the level of confidence, the lower stress, and the increased satisfaction felt by older students achieving satisfactory or above "average" academic performance. These factors may have influenced the relationship of GPA to graduation for participants in this study. H.J. exclaimed in the focus group interview that in returning to school he had achieved a grade point average he though was previously impossible.

Unlike the relationships between degree objective and graduation, a relationship was not found between degree objective and positive persistence. Academic success was similar for participants pursuing a two-year objective (36.6%), compared to those participants seeking a four-year objective (30.1%). Proportions for both these groups were almost equal (two-year 48.5% and four-year 50.81%). The greater proportion of four-year veterans who were academically unsuccessful might be attributed to the long time commitment to degree object and greater probability of environmental-pulls factors being a factor in leaving college.

Type of Institution

The type of institutions a participant had selected to attend appears to be influenced by their site of VUB enrollment. Findings indicated that forty-eight percent (48%) of the participants were Native American. Montana demographic report for 1992-1998 indicated that forty-six percent (46%) of these participants elected to attend one of the seven tribal colleges. It might be further suggested that the site of institutional

enrollment also influenced the degree objective, since only one of the tribal colleges offers four-year degrees (Salish Kootenai College). The Montana VUB demographic report further confirmed that the majority of Native American participants pursued two-year degrees or certificates at tribal colleges and non-Native American participants were likely to have enrolled at the VUB site located on the Montana State University-Billings campus, to pursue four-year degrees. Academic success was greatest for those participants seeking less than a four-year degree. There was an astonishing success rate (82%) among those participants seeking vocational certificates (less than two-year). It should be noted that these participants accounted for only 3.2% of the study's population. However, of the forty-seven percent (47.1%) of the participants seeking a two-year associate degree, more than one-half demonstrated academic success (53%). This was in contrast to those Project participants who pursued a four-year degree, and achieved a 38% success rate. While the study did not control for entrance to completion dates, academic success was defined not only in terms of graduation, but positive persistence and covered a six-year enrollment period. The greater success at two-year institutions was illustrated by the focus group interviews. Among the participants of the academically unsuccessful group, the general education requirement, the schedule of classes offered, and the time needed to complete a four-year degree were voiced as the primary reasons for four-year attendees leaving the institution. Focus group participants suggested that providing more information and encouragement to participants to attend two-year academic institutions or certificate programs, might increase the academic success rate of Montana's Veterans Upward Bound Project. This is an important insight not only in terms of improving Project worth (Steele, 1970), but it supports the current

efforts to expand short-term postsecondary education programs for veterans eligible for the GI Bill. Very few short-term programs at non-accredited institutions have VA approval for veterans' educational benefits. This action may also address the lack of usage among current eligible veterans, as mentioned in the literature review. The type of institution attended had a very strong relationship to academic success (both graduation and positive persistence). Those participants attending Tribal Colleges (n=225) demonstrated a 51% graduation rate, in contrast to the four-year attendees (n=246) whose graduation rate was 39% (14% less than their tribal college peers). According to the NCES the national average for 53% of students pursuing a four-year degree attained their goal in a five-year period compared to the 39% completion rate of VUB participants in a six-year period. Caution should be exercised in comparing VUB data to national norms since the populations are not the same. The highest success rate occurred among the 24 attendees attending a non-tribal two-year college. However, they represented only 4.8% of the total population compared to 46% of the participants attending one of the Montana's tribal colleges. The academic success at the tribal colleges suggests indicated that in relationship to the NCES Condition of Education Report (1996), the percentage of participants of the Montana Veterans Upward Bound participants placed at two-year tribal colleges who obtained a two-year degree (53%) exceeded the 43% national rate of academic success of students seeking an associate's degree during a five-year period. The outreach strategy of initiating postsecondary enrollment of Native American veterans within their community has been very successful, not only for VUB students, but also to the overall success of the Project in terms of both placement and degree attainment goals. This finding is also important in recognizing the acceptance of the VUB Project

by the state's Indian reservation communities, which has resulted in 46% of the 48% total Native American enrollment being derived from the seven reservations.

The type of postsecondary institutions attended, similar to graduation, showed a strong relationship to positive persistence. Participants attending a two, or four-year tribal colleges showed greater academic persistence (39.7%), and experienced less academic failure (60.3%), than those attending four-year or two-year public institutions. Earlier cited research supports the positive achievement of minorities attending two-year community institutions, especially institutions that are located closest to the student.

Grade Point Average

Grade point average was examined as an independent variable to graduation only, since it is a predictor variable of positive persistence. The use of statistical methods demonstrated a relationship between GPA and graduation. However, more importantly, this independent variable was selected to gain insight as to the extent that GPA was related to leaving college. While 73% of the participants who enrolled in college from VUB had GPAs of 2.0 or better, it should be noted that 48% of those students who were academically unsuccessful left for reasons other than maintaining satisfactory academic performance.

The focus group interview of unsuccessful participants illustrated that the majority of the these participants who left college did so for reasons other than unsatisfactory GPA. However, it should be noted that two participants had grade point averages below 2.0 (**L.D.**, **R.W.**). Both these students were on probation, one had a 1.9 GPA in his senior year, and the other participant simply dropped in the middle of the

semester without withdrawing from his courses which resulting in receiving the letter grade F in all courses. As expected a higher graduation rate was associated with GPA s of 3.0 or higher. It can be suggested that the majority of Montana VUB participants were academically prepared to succeed in college as evidenced by over forty-percent (42%) achieving grade point averages of 3.0 or higher.

While GPA was not cross tabulated with the dependent variable for positive persistence, it is interesting to note that forty-four percent (44%) of those participants who were academically unsuccessful (n=229) had GPAs of 2.0 or better, and that over a quarter of them (27.5%) had achieved GPAs of 3.0 or better. Focus group participants did not mention grade point average as a major concern for leaving college.

One of the federal mandates for VUB is to provide academic preparation to Project participants sufficient for them to be academically successful. The findings clearly demonstrated the success of the Project in meeting this mandate. The majority of the participants (72%) who entered college achieved at least a 2.0 grade point average (GPA). Forty-one percent (41%) achieved at least a 3.0 GPA or better. Twenty-eight percent (28%) of the enrolled participants failed to maintain satisfactory progress. The study did not delineate the types of courses taken, grading variances between tribal and state colleges, nor the number of credits taken and completed.

In summary, the discussion of selected demographic variables provided useful information for understanding the relationship of selected variables to academic success. They also served as points of discussion among the Billing Project participants who attended the focus group interviews. An in-depth discussion of these interviews follows.

Discussion Based on VUB Billings Site Focus Group Interviews

Discussions of the quantitative outcomes beyond the numerical interpretations were tentative and a greater understanding of these relationships were sought by conducting focus groups to illustrate experiences and relationships to quantitative findings. Only those participants who attended VUB at the Billings site, and entered postsecondary institutions in Billings, participated in the focus group interviews. Insights and illustrations related to quantitative findings are restricted to this group, and were not generalized to all VUB Project participants, especially participants who had attended VUB at tribal colleges. In-depth narration of qualitative findings were presented in the previous chapter and the following section summarizes these discussions.

A Summary of Focus Group Participant Experiences to Academic Success and Failure

Two separate focus groups comprised of five academically successful participants and seven academically unsuccessful participants were conducted to gain insight and understanding of their postsecondary experiences as they related to their academic success or failure. Only participants who attended VUB at the Billings site attended the interviews. Both group interviews were structured around Bean's (1990) Interaction Factors contained in his Longitudinal Model of Factors Affecting Retention Decisions. Group discussions were tape recorded and pre-group questionnaires, moderators' notes and abridged transcripts of each groups' dialog were used for triangulation purposes and to illustrate insights obtained from participants. This section began with discussions centered on the introductory question pertaining to findings related to the study's

quantitative findings related to academic success. A summary of both quantitative and qualitative information as it relates to the academic success and failure of participants concludes this chapter and is referenced in the Appendix C.

Focus Group One (Academically Successful)

Group theme questions framed around Bean (1990) Interaction Factors found that among organizational variables, participants from this group indicated that the Office of Admissions and the process of registration proved the most frustrating and discouraging. There was no discussion regarding the courses offered or taken by the participants. One participant voiced that rules and regulations existed everywhere and you just have to accept them like in the military or work around them. Other group members seemed to confirm this outlook. There was a great deal of positive feedback regarding the academic services offered and utilized by the participants. The Library and staff, Student Support Services, the Writing Lab and Veterans Upward Bound were mentioned as academic resources that were used and proved most helpful to them. There was little mentioned of class scheduling or course offering. One student at Billings COT noted he had a "minor scheduling" problem, but was able to resolve it. This same student also mentioned he had a run-in with an administrator regarding the institution's policy on confidentiality in a matter regarding his daughter, who was attending the same college. One student also noted that the institutional policy established for clearing unsatisfactory grades from past college attendance enabled her to graduate. Both groups voiced a strong concern and need for campus childcare. This was a major concern of single parent group members.

The focus of discussion related to academic integration factors centered on study skills and habits. While both focus group members acknowledged that they were practicing good note taking skills, using collaborative study groups, and following individual schedules (time management), a few participants noted that these skills were not employed during their first enrollment in college and consequently resulted in poor grades and decisions to leave. One student noted he had acquired good study skills while in high school but that had faded in time. Both group participants mentioned VUB's emphasis on these skills and the Project staff providing the study skills instruction, as having been instrumental in developing good habits and providing them with the study skills needed to be successful. Workshops and tutoring provided by the campus Student Opportunity Service program (another TRIO project) was also noted by one participant for increasing her academic skills. Relationships with faculty seemed positive but somewhat limited, especially among those with families. One participant who was able to be on campus most of the time and another participant, who was single, experienced more interactions with campus faculty who they felt were concerned and willing to provide academic assistance. There was no mention of academic major outside of one comment that found that the class level and major facilitated greater interaction among students bonded by a common interest (academic major). Surprisingly, financial aid or VA educational benefits certification did not receive mention, since the lack of finances was of primary concern to both group participants. Absenteeism also received little attention; except to note-- that calving required one participant to miss 2 or 3 days. In this case, the instructor's were notified and the absences were approved.

Social integration factors were some of the interaction variables, which distinguished Group One from Group Two participants. Participants from Group One noted that they had sought out friendships on campus to study with, to socialize with, and to grow from. These relationships provided the basis for forming a social support network to study, provide childcare, maintain cultural identity and receive emotional support.

Environmental Pull-Factors were similar for both groups. However, participants from Group One found ways to work around barriers. Similar barriers overwhelmed Group Two participants. Both groups experienced the greatest stress relating to the lack of finances to attend and pay for their education, and to support their families, or themselves. Only one participant had sufficient financial support enabling him not having to seek work until his senior year. The rest of the participants worked full or part-time jobs, often working the night shifts. Working nights took time away from participants' families, their children, their study time, and their sleep. One group member summed it by stating: "That is just the way it is." Since all the participants had attended either the MSU Billings main campus or the Billings COT, transferability of credits, or having significant others elsewhere were not concerns of this group. Their commitment to their educational goal, the ability to consult and involve their families in their educational pursuit, and their ability to seek support from on and off campus friendships enabled them to overcome many of the same obstacles confronting members of Group Two.

Focus Group Two (Academically Unsuccessful)

The majority of interactive variables within the organizational, social and environmental pull factors appeared to have resulted in negative experiences, and contributed to Group Two members deciding to leave college. Students commented that they had little contact with Admissions and that they perceived the staff in those offices doing just what they are suppose to do. Only one participant indicated establishing a personal contact with an admission's office staff who assisted her with her transcripts. Course offerings were a major concern of all participants in this group even those attending the two-year programs. Dissatisfaction was voiced repeatedly that they were being required to take courses that they had no interest in, or were useless to what they wanted to do in life. This attitude was especially prevalent among those attending the four-year programs at MSU Billings. They also felt that the scheduling of day classes favored the traditional students resulting in fewer non-traditional students being on campus during the day. A second concern related to institutional scheduling was the long delay between courses. If they left campus during the day to work or attend to off campus matters, they often couldn't find available parking. Campus rules and regulations were also a source of complaint, especially among one participant who brought up a concern that occurred over thirty-years ago regarding the requirement of freshman to stay in the dorms during their freshman year at Rocky Mountain College. It is interesting that none of the participants mentioned seeking or using any academic services. This is in sharp contrast to Group One. The need for childcare by this group was vocalized by one participant who indicated that it been available, she might have remained in school.

Relationships with faculty members associated with the academic interaction factors were different for both groups. For Group Two participants, faculty seemed stressed out, had little time for helping, and only seemed to be interested in getting students in and out of the courses. Only one positive comment concerning a faculty member was made. This relationship resulted in the participant being able to waive a course requirement based on her prior life experiences. This group indicated that they generally had good study habits obtained from their enrollment in VUB; however, one participant only applied them if he was interested in the course (note taking). There was no mention of decisions related to academic majors except for several group mentioning that the requirement of taking general education courses extended the time to complete a degree from four to five years. Absenteeism was not brought up, but it should be noted that all participants within this group, except one, completed the semester they were enrolled in, choosing not to return the next semester. This suggested to the researcher that the participants' commitment to their educational goal were on a semester to semester basis, while Group One students established a commitment to obtaining the degree and worked everything else around it.

Social integration variables clearly influenced this group's decisions to leave or stop out. This stands in sharp contrast to Bean's (1985) theory that social interaction had no significant effect on dropping out. There was a distinct inability of these group members to form close relationships with the younger students because of perceived age differences. In contrast to Group Two members, successful participants actively identified nontraditional students who shared similar educational, personal or cultural views that supported their educational goals. The difference in age became a focal point

of Group Two discussions, and seemed to be the underlying cause for their dissatisfaction with the institution. Another indicator of limited involvement with campus life was the lack of mention of involvement in campus clubs or activities. The lack of time and the age discrepancy became the criteria for this group in not establishing meaningful or supportive relations with students or faculty.

Environmental-pull factors were the same for both groups. While both groups experienced the greatest stress from the lack of finances, lack of childcare, and family commitments, the successful participants actively sought out assistance from friends, families and available resources while they attended school. Group Two participants viewed the demands off-campus as needing to make a choice of what is most important to their lives. As one unsuccessful participant put it, "I come from an age of instant gratification; there was no satisfaction from going to school."

Health problems affected the academic success of three participants from Group Two. The delays caused by rehabilitation for two participants seemed to lower the priority for continuing school. Perhaps, the added stress was seen as contributing to the illness, and decisions based on this factor, prevented two participants from not returning. The remaining participant, with a head injury, indicated that he viewed college as an opportunity for rehabilitation--A chance to increase his memory and thinking skills.

The military experience emerged as an important influence to each of the group participants. While the successful participants viewed the military, as a period of maturation, to acquire needed discipline and provide time to develop personal goals, the unsuccessful participants viewed the military as creating different values from younger

students, a need to adjust income, and a mission orientation, which saw no value in general education requirements.

In summary these focus group interviews illustrated that the successful participants had much more positive interaction with all the variables noted in Bean's (1990) model. Successful participants had more frequent contacts with campus offices and services. They experienced greater and more meaningful interactions with nontraditional and traditional students that lead to the establishment of social support networks on campus. They had established more formal and informal contacts with faculty and they were more accepting of a long-term commitment to obtaining a degree. There was a belief that the obtainment of the desired degree would result in improved living conditions for the participant. The successful participants exhibited an ability to identify, and seek family, and outside support for remaining at the institution. These characteristics provided for the development of an attitude that reinforced their belief in the value of education, increased their enjoyment of the college experience, which resulted in a better institutional fit affecting their decision to complete college.

Academically unsuccessful participants were characterized by infrequent contacts with students and faculty, greater dissatisfaction with a greater number of campus services, greater opposition to institutional rules and policies, creation of short-term commitments to educational goals. These participants developed an outlook, which viewed education as a separate pursuit distinct from their family and apart from their daily needs. To these participants it was a matter of deciding what is most important at that current moment, education or their immediate or family's needs.

Limitation of the Study

As noted earlier, the findings of this study cannot be generalized to other VUB projects, since the purpose of this study was not to gather information for comparison to other projects, but to better understand the characteristics and experiences of this particular group of veterans as it related to the Montana VUB. Focus group interviews were limited to selected participants who attended the MSU Billings site and enrolled in college in or near Billings. Qualitative findings are limited to illustrating postsecondary experiences of the Billings VUB participants only and not to the total VUB population, especially Native American participants who attended VUB at tribal colleges.

Conclusions of the Study

A number of important conclusions can be drawn from this study's findings. Descriptive and chi square analyses indicated that the Montana VUB Project has been successful in attracting and enrolling Native American and female veterans. The Project has also demonstrated a great deal of success in encouraging and enrolling low-income veterans who could most benefit from furthering their education. It was found that almost one-half of Project participants had obtained some college credits prior to their enrollment in postsecondary education, and that these participants were more likely to be academically successful. While participants equally pursued both two and four-year degrees, participants seeking certificates or two year diplomas were more academically successful. Findings also indicated that the GI Bill utilization rate was higher among Project participants than the national average rate. Of primary importance to the Project

was the finding, which concluded that the Montana VUB Project exceeded Department of Education goals for participant graduation and retention.

While conclusions pertaining to all Project participants could not be derived from the focus group interviews, a number of insights pertaining to the Billings program were obtained. These insights suggested that organizational, social and environmental-pull factors as described by Bean (1990) most strongly influenced participant academic success or failure. Academic variables such as academic skill or habits played little or had a minor part in regards to decisions to remain or leave the institutions that they were attending. Focus group participants also revealed that the Project was instrumental in them applying and receiving VA educational benefits, as well as the Montana veterans fee waiver. These participants also confirmed the importance and use of the Projects resources and staff after they entered postsecondary education. In concluding their groups, they suggested that the Project could improve by allowing them to audit a 100 level course, by more strongly advocating or networking them to childcare, and providing participants with more information on certificate and other short term training and educational opportunities.

Recommendations

This study represented an initial study of the Montana Veterans Upward Bound Project. The purpose was to obtain a profile of participants enrolled from 1992 to 1998 based on selected demographic characteristics and to determine the relationship of these variables to academic success defined as having graduated or demonstrating positive persistence. Further, the study sought to gain insight and illustrate the postsecondary

experiences of 12 former Billings area participants, some of whom were academically successful and some who were not.

Further Research

Tribal College Project Participants

As noted earlier, a delimitation of this study excluded examination of the postsecondary experiences of remote VUB tribal college participants. The lack of attendance of invited participants from Little Big Horn and Dull Knife Memorial Colleges limited any understanding of tribal college participants beyond the descriptive data. The services provided to tribal college veterans are unique from the veterans participating in the focus group interviews. Tribal college veterans are identified, provided assistance in applying and registering for classes, and assisted in paying their tuition at the tribal college. Unlike the participants in the study's focus groups, these VUB participants are enrolled directly into college classes and are linked with campus student services. Follow up services are coordinated with other TRIO services available on campus. In short, their VUB and postsecondary experiences are unique and differ from each site.

The purpose of this research was to examine selected demographic variables and postsecondary experiences to gain an understanding of factors contributing to their academic success or failure. Although a better understanding was obtained, it is incomplete, especially in regards to tribal college participants. The factor of age as an influence on graduating needs to be examined with Project tribal participants. The different cultural perspectives regarding age and elders might be in contrast with the

Billings Project participants who were non-Natives. Other cultural and tribal college campus aspects may influence factors related to social interaction and environmental-pull factors. The importance of family and extended kinships (Dell, 2000) need to be further examined, especially as it relates to tribal participant academic success and grade point averages.

Health Issues and the Military Experience

Focus group interviews revealed aspects, such as the influences of health and the military service, as being factors influencing academic success or failure of the participants. These influences should be examined more in-depth among all Project participants. L.D.'s remark that he needed more discipline countered early researchers findings that military veterans do well academically because of the discipline and maturity acquired from the military experience. The aspect of internal versus external personal discipline merits examination as a factor, not only related to academic success, but as a factor for participating in postsecondary education.

Background Variables Outside of Bean's Longitudinal Model

Follow-up individual interviews with some of the focus group participation might provide deeper and greater insight into factors not revealed or framed by the theoretical model. Such things as family background, military experiences and prior college experience are worthy of further investigation and could provide for the "theoretical saturation" sought by qualitative research.

Demographic Variables of Unsuccessful Project Participants

This study examined only Project participant demographic variables related to academic success. Following the statistical procedures conducted by this study, further research needs to be conducted to examine the selected variables of Project participants who were academically unsuccessful. The demographic background variables of VUB participants who dropped out or stopped out need to be described to gain further understanding of these participants' educational experiences. The focus group interview of the academically unsuccessful participants illustrated the influence of degree objective and the type of institution attended, as being factors for their academic attrition. The collection of this data could result in future comparative studies of the two groups.

Recommendations for Procedural Adjustments

Two procedural adjustments needed to be made to this study. First, the pre-focus group questionnaire needs to be revised to better focus on each of the individual variables presented in Bean's (1990) model. The questions were intended to serve as an introduction to the Interaction Factor themes to be used in the focus groups. Although it accomplished this, the groups did not reveal sufficient information on many of these variables, such as major certainty, class attendance, and the transfer of credits. Since participants brought their questionnaires with them at the time of the interviews, this adjustment could not have been made prior to the interviews.

Second, a series of focus groups needs to be conducted both in the Billing area and at the seven tribal colleges. The information obtained from these interviews would provide a more holistic understanding of the similarities and differences between the

Billings area participants and the tribal college participants. It was initially anticipated that a sufficient number of tribal college participants from the Crow and Northern Cheyenne reservations would attend the focus groups because of the close proximity to Billings. However, winter weather conditions, and the expense of travel exceeded incentives offered by the study to perspective participants. The findings in this research indicates that based upon the large number of tribal participants and the geographical expanse of the reservation, a separate study would be needed to more fully understand these participants postsecondary experiences.

Implications of Findings

Review of Federal Policy Regarding the GI Bill

Focus group discussions revealed a need to reexamine federal policy regarding VA benefits in regards to benefits amounts, limitation on the number of years to use benefits and inclusion of veteran benefits as income on federal financial aid forms. The national importance of the GI Bill has greatly diminished since WWII. Its importance to the individual veteran attending college was mildly suggested by qualitative findings, however, all of the Project participants interviewed, who were receiving the GI Bill (F.R., T.P., L.D., S.V.), expressed the importance of this benefit as both an incentive for entering and remaining in college. Group discussions also suggested the need to increase the amount of the benefits and to extend the period of eligibility beyond 10 years, and to allow for short-term training outside traditional academic instruction. The research of Atwell (1999) and the number of Project participants who were eligible for the GI Bill but who were academically unsuccessful indicated a need for the Department of Veterans

Affairs to revise its evaluation of The GI Bill based on utilization and exam academic success measured by degree obtainment and positive persistence.

VUB Billings Site Improvements

Focus group participants suggested several improvements at the Billings Project site that could lead to greater academic achievement of these participants. Beginning in Fall 2001, participants will be provided an opportunity to sit in on a 100 level course of their interest. This opportunity is intended to increase their interaction with traditional age students and increase contact with campus faculty. Health care issues will be addressed by involving the campus health center to present relevant topics on health issues for older students and to encourage older participants to schedule physical exams at the VA Outpatient clinic in Billings.

Other improvements will include providing participants with childcare information available in the community and to network them with the Billings campus effort to establish campus childcare. Training and information will be provided to Project staff regarding certification programs and short-term educational training approved by the Veterans Administration. This information will be made available to all participants attending the site.

Chapter Summary

The problem of this study was addressed by providing information pertaining to the Montana Veterans Upward Project. This study, with procedural adjustment noted, can provide a format for future studies related to other VUB participants and VUB projects. By obtaining a student profile and demonstrating that certain student

characteristics and educational experiences can influence academic success, all research questions were answered. The findings suggested further research, policy changes, and specific improvements in Project services for the Montana VUB Project. As a descriptive investigation, the study gathered a bulk of information pertaining to participant demographic variables. Deeper understandings of the postsecondary educational experiences of VUB participants who attended colleges in the Billings were obtained, and the need for further research of VUB tribal college participants was exposed. An unexpected finding identifying health factors and the military experiences as possible factors in attrition and retention of nontraditional students was identified through this study. Lastly, it is hoped that this study will increase the interest in veterans as students in postsecondary education and increase the opportunities for more of our military veterans to advance themselves through further education.

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APPENDICES

APPENDIX A

INFORMED CONSENT FORM

Dear Veteran:

I am a graduate student at Montana State University Bozeman and preparing a dissertation examining the post secondary experiences of former Veterans Upward Bound students. I would like to invite you to participate in a focus group to discuss your experiences since you left the project. Your participation is strictly voluntary and what you share will be confidential.

Cindy Dell, from MSU Billings Teacher Education Department group along with Fred Dietz, Coordinator for Instruction and Student Service will conduct the group. I will introduce the participants and the purpose of my study. It will be an informal meeting lasting approximately two hours. Pizza and refreshments will be served. Each of you will receive \$20.00 for your participation. All participants will be former VUB students who pursued education upon completing VUB.

Our discussion will be recorded and become part of the written dissertation. Your name and your comments will not identify you, and your opinions will be held in confidence. Upon completion of the dissertation, the recording will be erased.

I look forward to your participation and your help. Your participation will assist VUB to better understand what you experienced in college. This understanding will provide us with information to improve services to veterans who will later enter the project.

This study will be shared with my dissertation committee and other appropriate members of the Department of Education and Veteran Upward Bound staff. The results of this study will be published and housed at Montana State University Bozeman's Renne Library. Please do not hesitate to call me at 657-2086 (office) or at my home 652-7507. You may also contact my committee chairperson, Dr. Richard Howard at 994-6035.

In Appreciation,

Luke Petriccione

Please sign below if you are willing to participate in the focus group.

Print Name _____

Date _____

Signature _____

Adapted from Marshal and Rossman, (1999, p. 99)

APPENDIX B

PRE-FOCUS GROUP QUESTIONNAIRE

Name _____

Date _____

College
Attended/Attending _____

Academic Status

___ Graduated Degree (AA, BA, BS) _____ Major _____

___ Enrolled in College ___ I have less than a 2.0 GPA ___ I have a GPA of 2.0 or higher

___ Stopped Out (Left College but Plan on Returning) Degree Pursued _____

___ Dropped Out (Left College with No Plans on Returning) Degree
Pursued _____

Please provide brief but honest answers to the four following questions. Focus on things that most stand out and contributed to your obtaining a degree, continuing to stay in school, or reasons for stopping out or dropping out of college. Your answers will only be used for analysis and will be destroyed upon completion of this study.

Organizational Theme:

Summarize your experiences or specific situations that relate to the college you attended in regards to services, regulations or practices that contributed to or detracted from to your continuing or leaving college.

Attitude Theme:

Describe your student habits such as study skills, class attendance, or personal attitudes that resulted in your decision to complete, stop out or leave college.

Social Integration Theme:

Describe your social life on campus-such as your friendships with other students, faculty, clubs, or activities-that contributed to you staying at or leaving college.

Environmental-Pull Theme:

Describe those things off campus such as work, family, children, travel that had an impact on your staying or leaving college.

VUB Feedback Theme:

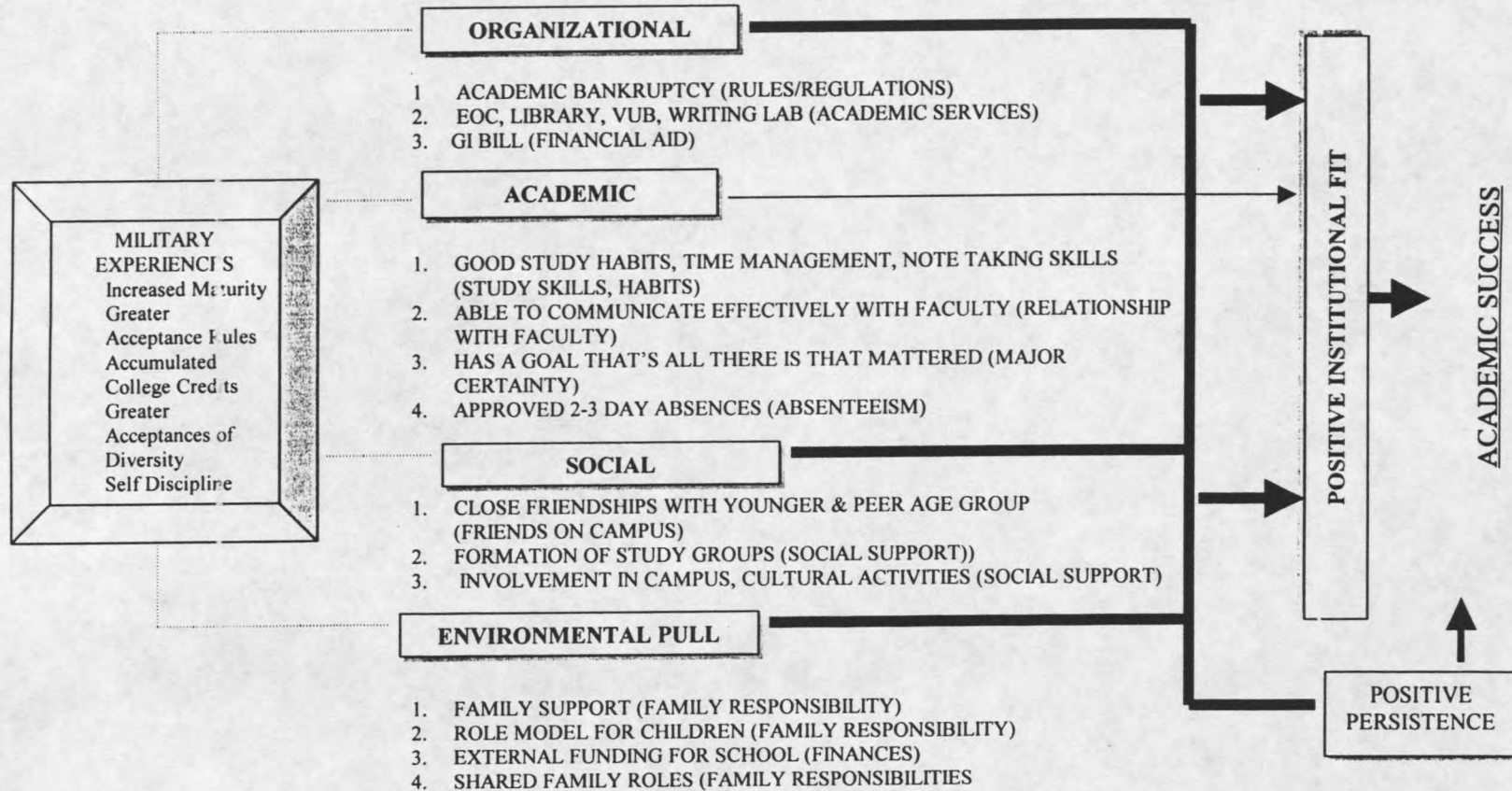
Reflecting back on your experiences in Veterans Upward Bound what did we do that proved most valuable to you and what could we have done better in preparing you for college?

Other Comments:

APPENDIX C

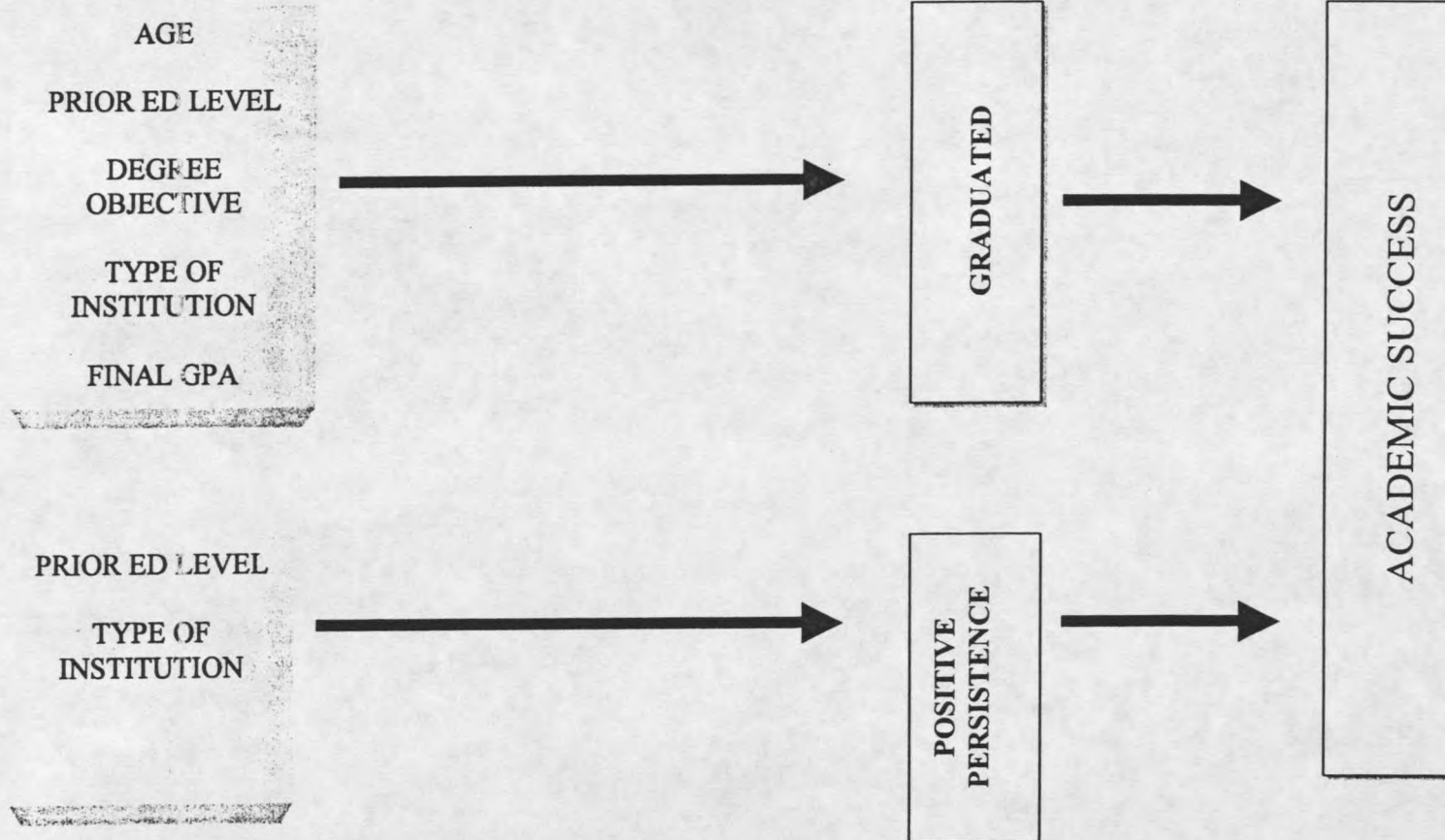
SYNTHESES OF BACKGROUND VARIABLES & INTERACTION FACTORS

SYNTHESIS OF INTERACTION VARIABLES LEADING TO ACADEMIC SUCCESS

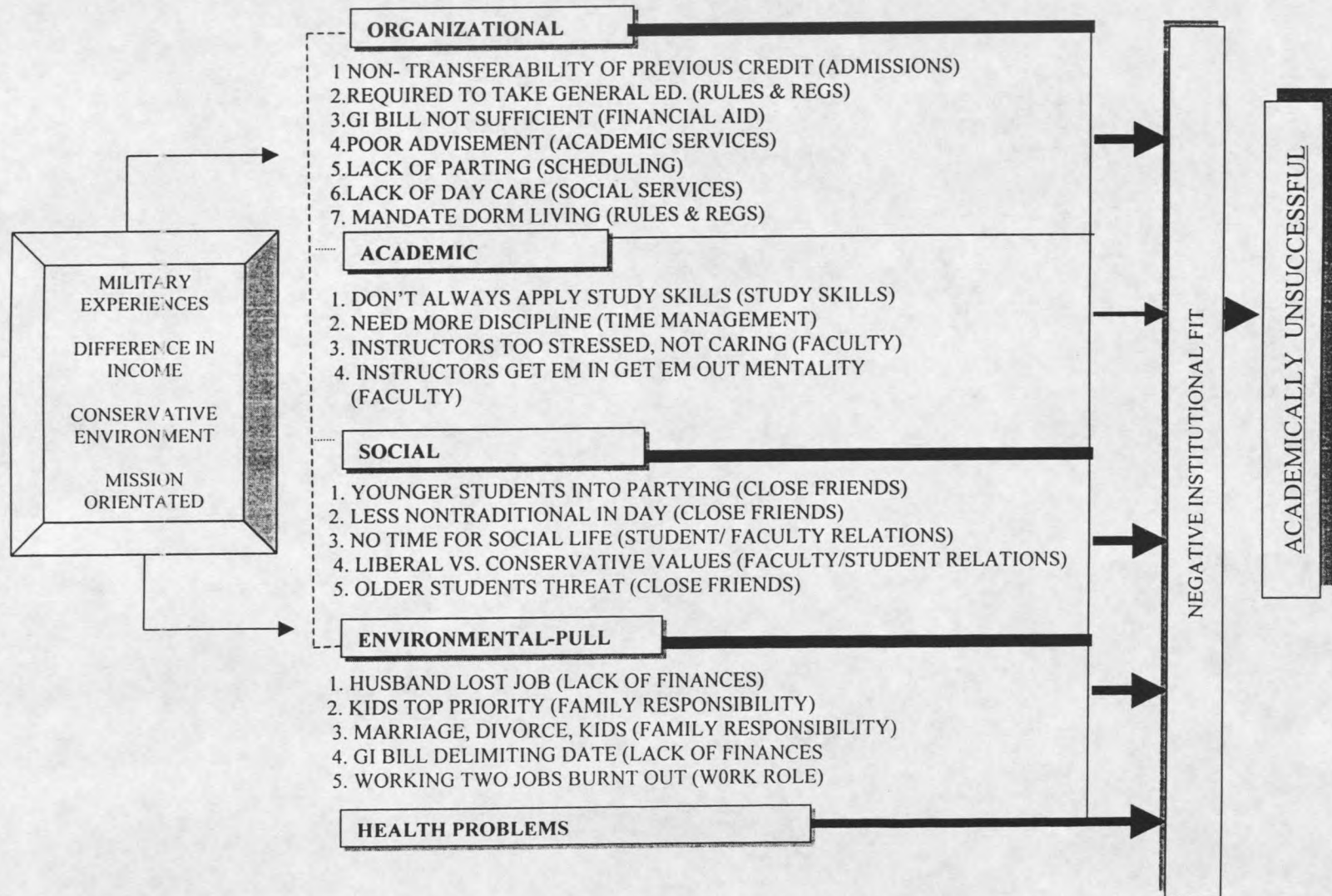


SUMMARY OF DEMOGRAPHIC VARIABLES LEADING TO ACADEMIC SUCCESS

BACKGROUND VARIABLES



SYNTHESIS OF INTERACTION VARIABLE LEADING TO ACADEMIC FAILURE



APPENDIX D

RESUMES

Fred W. Dietz, Jr.
 1916 Columbine Drive
 Billings, MT 59105
 (406) 245-6170

Professional Experience

- 1996 Current Center Counselor and Instructor.
- Provide student counseling and instruction to Center participants. Counseling includes individual and required program counseling. Instruction includes areas of writing composition, literature, and word processing. Assist with Student Services in developing and maintaining support services and management of student tracking and data.
- 1993 Current Instructor, Veterans' Upward Bound, Montana State University, Northern.
- Instructed classes of Writing, Grammar, Literature, and introduction to computers while attending classes for masters degree.
- 1985 1989 Veterans Affairs/Admissions Office, Eastern Montana College
 1500 North 30th Street, Billings, MT. Clerk.
- The function of this position was to be a liaison with veterans under all G.I. Education Bills, the school, and the Veterans Administration. As senior work study, I assisted with regulations of numerous G.I Bills and their application to individual veterans. While the office administrator was training for additional duties, I was responsible for the Admissions Office, including telephones, filing, word processing, and front desk services.
- 1982 1988 Free Lance Author.
- Wrote and edited two fiction novels for publication.

Education

- 1996 Masters of Science, Rehabilitation Counseling
- 1989 Bachelor of Arts

Publications

- 1988 *Beggars*, Canadian Poetry Society, Box 4B, Toronto, Canada

Dr. Cindy Ann Dell
Curriculum Vita

Dr. Cindy Ann Dell
Montana State University-Billings
1500 North 30th
Billings, MT 59101
(406) 657-2393

Education

Ed.D.	Montana State University-Bozeman Adult and Higher Education	2000
M.S.	Montana State University-Billings Special Education, Option: Personnel and Guidance	1990
B.S.	Montana State University-Billings Psychology	1989

Professional Organizations

American Association of Adult Education
The National Academic Advising Association (NACADA)
National Association of Nontraditional Students

Professional Certifications

National Certified Counselor (NCC)
Certified Trainer, Rollercoasters Parent Education Program

Professional Experience

2000 – Present	Montana State University-Billings Assistant to the Dean Director, Certification and Field Experiences Title II Reporter College of Education and Human Services
1993 - 2000	Montana State University-Billings Certification Officer Field Placement Officer Graduate Student Advisor College of Education and Human Services
1990 -1993	Montana State University-Billings Academic Advisor

Current Teaching Responsibilities

- Educational Psychology
- Introduction to Psychology
- Student Teaching Seminars

Publications, Presentations and Research

Publications and Articles

Title II Report to the U.S. Department of Education, Montana State University-billings, 2000.

Dell, C., Howard, R., Borland, K. (2000). Transition from tribal college to a four year university: Emergence of transition phases during the first semester after transfer. Journal of Transition and Orientation.

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Dell, C. A. (1990). Differences between withdrawn and continuing students: A study of nontraditional student retention at Eastern Montana College. Unpublished master's thesis.

Conference Presentations

Transition from Tribal College: Presenter, Montana Indian Education Association Conference, June, 2000, Great Falls Montana

Assisting American Indian students to be successful in College, Co-Presenter, Montana AGATE Conference, May 2000, Billings, Montana.

Meeting the Needs of Students in Rural Areas through Distance Advising. Poster session presented at the American Council on Rural Special Education, Sixteenth Annual National Conference, March, 1996, Baltimore Maryland.

Meeting the Needs of Students in Rural Areas through Distance Advising. Co-presenter at Region Eight National Academic Advising Association Conference, April, 1995, Seattle Washington.

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