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Associate in Science (AS) to Bachelor of Science in Applied Science
(BSAS) Transfer Students: An Analysis of Student Characteristics,
Engagement, and Success

by

Jerry C. Collins

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Adult, Career and Higher Education
College of Education
University of South Florida

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Keywords: adult learner, articulation, capstone degree, career ladder degree, occupational degree, non-traditional student, vocational education

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Dedication

I dedicate this dissertation to my loving wife, Theresa, for her undying support throughout this arduous process of completing my Ph.D. This manuscript is the culmination of my many hours of work and sacrifice, but the burden was certainly a shared one. I know this overwhelming project detracted from my family obligations, but Theresa always covered me.

Throughout this entire educational process, I was never once made to feel that my “missing in action” status was a concern from my wife or anyone else in my family. Consequently, I owe my greatest debt of gratitude to my wife for defending my absence from family events; for allowing me to take the time; for always accommodating me when it really wasn’t convenient for her; for perpetually standing by me; for compelling me to do it well; and for encouraging me to hurry up and finish.

From the onset of this pursuit, she has willingly taken on additional duties in our home so that I could commit the necessary time to attend classes, conduct research and compose this manuscript. She has always stood firmly behind me every step of the way, and she has been the catalyst for my every success. This milestone I share with her, because I know that I would never have achieved it without her love, support and devotion. I am truly blessed.

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Engagement and Success

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ABSTRACT

This study sought to examine and comprehensively describe transfer students who have earned a two-year technical or occupational Associate in Science (AS) degree at the community college and entered the university to pursue the Bachelor of Science in Applied Science (BSAS).

The BSAS degree is a specialized baccalaureate degree program created to allow AS degree holders an opportunity to efficiently transfer into the university affording them full recognition of their two-year degree. This statewide articulated program at the University of South Florida is the first of its kind in the state of Florida. The program only began admitting its first students in the fall term of 2003.

Prior to the creation of the BSAS degree, most AS degree holders were not admissible to the university. If they did meet admission requirements based upon competitive freshman admission requirements, only about 15-18 credits of the 60+ credits earned through their AS degree were transferrable. Before the BSAS there were no efficient means for most AS degree holders to pursue higher education beyond their two-year degree.

The first five years of this new bachelor's degree program have been very successful. The BSAS program has consistently experienced enrollment growth every year, and the specialized "areas of concentration" have continued to expand offering even

greater opportunity for AS degree holders to pursue meaningful baccalaureate studies in support of their academic, professional or personal goals.

The AS-to-BS transfer students represent a relatively new student population at the university and this population is steadily growing. The university has historically had little experience with them, and consequently we know little about them. This study was an analysis of AS-BSAS transfer students to determine their characteristics, engagement and success at the university. The study revealed that they are, in fact, a unique student population at the university who are generally disengaged with university life, but performing very well academically. Their average age is 37 years old. They are predominately working adults with family responsibilities. They are conscientious students who are persisting and completing their bachelor's degree in less time than the national average for all transfer students.

Overall, the results of this study suggest that we may need to make adjustments to our transfer and articulation policies, our admission practices, and closely examine the broader services of the university to ensure we meet the holistic needs of this new, exclusive, atypical, workforce focused, and growing population of students at the university.

Chapter One

Introduction and Background

The articulation and transfer of the community colleges' two-year occupational, professional and technical degrees into upper-level baccalaureate degree programs is a relatively new development in higher education. Higher education authorities have begun to support this recent shift in thinking about the transferability of these previously viewed two-year "terminal" degrees, and four-year institutions are now being persuaded to develop new and efficient pathways for their transfer into baccalaureate programs. Consequently, this creates a population of transfer students at the university with whom we have had little experience, and about whom we know very little. This study will examine this student population and provide a comprehensive description.

This recent change in transfer policy illustrates the growing involvement of the state in transfer and articulation issues related to their statewide educational systems, statewide workforce development and state budgets. Such involvement by the state in higher education's transfer and articulation processes between two-year and four-year institutions was very limited several decades ago, but more recently, states have increased their involvement to guarantee educational opportunities for the broader interests of the state (Robertson & Frier, 1996).

Transfer and articulation is now a priority concern for state legislatures. Efficient educational systems that provide a seamless advance between primary, secondary and

tertiary levels of education are important in an era of state budgetary limitations, important to the provision of greater educational access and opportunities to citizens; and important for meeting the needs of states' current and projected workforce. It is understandable that states now regularly promote transfer and articulation between their institutions as a means of increasing system efficiency (Ignash & Townsend, 2000).

Florida is a state that has been recognized for its long-standing and exemplary transfer and articulation policies (Bender, 1990). Since the 1960s, the Florida legislature has continued to provide statutory statewide transfer and articulation processes. Over this period, statutory policy has primarily focused on the transfer of the community college Associate in Arts (AA) degree. It was not until 1998 that the Florida legislature began to address the transfer and articulation of Associate in Science (AS) degrees into baccalaureate degree programs (1998 Florida Senate Bill 1124, Florida Statutes 240.115).

Unlike that of most states, the AS degree, and not the Associate in Applied Science (AAS) degree, has been the career/workforce degree in Florida. It is still the primary degree for the vast majority of the state's technical and occupational fields of study. The AAS was not introduced until very recently in Florida's community college history, and there is very little difference in the curricular content between many of the AS and AAS degrees in Florida. In most cases, in fact, the only difference is a single general education course. The most significant discriminator between the Florida AS and AAS is whether the courses within the degree are taught by faculty meeting the credentialing requirements of regional accreditation standards – a Master's degree and at least eighteen graduate hours in the area of study. Generally, the career/workforce

degrees with courses taught by faculty who do not meet regional accreditation standards are designated as AAS (Furlong, 2007).

Even considering the slight difference between the AS and AAS degrees, there are no indications that Florida will attempt to broadly articulate transfer of the AAS degree in the near future to the same level of articulation afforded the AS degree. To date, however, only a few of Florida's senior institutions have actually developed an unobstructed pathway from the two-year AS degree into their four-year degree programs, but the current momentum generated through continued workforce influences, public pressures, and legislative mandates will likely compel more senior institutions to create viable 2-plus-2 programs for Florida's two-year occupational, professional and technical degrees.

As the Florida legislature continues to make a strong connection between higher education and workforce development, the state may also experience a significant increase in the number of occupationally-focused two-year degree programs designated for transfer into baccalaureate degree programs. The promotion and growth of these transferable technical/occupational degree programs will also likely increase the number of students who find these degrees more attractive, and opt for the occupational, technical and professional AS degrees over the liberal arts AA transfer degree. After all, the majority of today's college students already state that their primary reason for obtaining a college degree is to get a job and make more money (Berkner, Horn & Clune, 2000; Pascarella & Terenzini, 2005, p.45) .

The issue of junior college students transferring to senior colleges has been ongoing for over a century when the first community college was established in Joliet

Illinois in 1902. As early as the 1950s, a study was initiated by the Joint Committee on Junior and Senior Colleges, and scholars began studying transfer student performance and retention as early as the 1960s (Knoell & Medsker, 1964). Recently, scholars have examined institutional processes for dealing with transfer students (Davies & Casey, 1998; Britt & Hirt, 1999), while still others such as Cohen (1982), Bender (1990), Kintzer (1996), and Ingash and Townsend (2000) have also examined the policies and practices of articulation and transfer. However, few past studies have focused on a descriptive analysis of the “previously terminal”, occupationally-focused, two-year degree transfer student. In the past few years, there have been a modest number of studies examining the AS/AAS transfer phenomenon, but no known study has focused on developing a thorough description of these students. This void in the research is reasonable since these students were previously limited in their ability to transfer to four-year degree programs, and their minimal numbers presented little impact upon the policies and practices at the four-year institutions. Now, due to recent articulation, the introduction of this significant and growing population into the university creates a need for contemporary research. There are unanswered questions about this growing population of transfer students: Who are they? What are their characteristics? What are their backgrounds and experiences? Are they capable and prepared for baccalaureate study? How do they perform at the senior institution? These questions are relevant to higher education administrators, policy makers and students. The answers to these questions can guide our future policies and practices related to AS/AAS transfer and articulation.

Of course, no study provides all the answers to all relevant questions, but any relevant question without an answer makes evident the need for research. Such relevance

and need is the impetus for this research, and the ensuing descriptive study will contribute to our understanding of this unique transfer student population. The resulting information about their demographic and academic characteristics, their educational engagement and their success is important for the advancement of our institutional knowledge about the technical, occupational, and professional two-year transfer students. Such understanding is important for negotiating our perceptions about them; and beneficial toward the construct of future policies and procedures for serving them.

Statement of the Problem

Nationally, a majority of states have created statewide articulation agreements to guide the transfer of Associate in Arts (AA) degree holders into baccalaureate programs. Florida has had such a statewide agreement for decades. Articulation agreements for the Associate in Science (AS) and Associate in Applied Science (AAS) degrees, however, are fairly recent nationally and have only existed in Florida since 1998. The initial statewide articulation agreement in 1998 pertaining to Florida AS degrees was quite limited and only addressed the transfer of career-ladder AS degrees in business, radiography, nursing and criminology for transfer into the baccalaureate degrees in business, radiography, nursing and criminology respectively. A more recent Florida statewide agreement has expanded to include other career-ladder, capstone and inverted degree options within specific programs at various four-year institutions (Appendix A).

In 2003, the University of South Florida was the first among the state universities in Florida to expand AS-BS articulation beyond the initial three career-ladder programs (business, nursing and criminology) available at the university by offering the AS-to-Bachelor of Science in Applied Science (BSAS) permitting a student to transfer with any

Florida AS degree into a number of academic concentration areas to compliment previous study or to pursue a career transition (Appendix B). A few of Florida's baccalaureate granting institutions now offer transfer into a degree program with a specific AS degree area of study (career ladder) while only a few offer entrance with any AS degree and some AAS degrees (inverted/capstone). The number of participating institutions and transfer options is still quite limited, but growing. The University of South Florida has admitted several hundred AS transfers since its inception of the BSAS program in 2003 with approximately 120 graduates to date. As prospective Florida community college students become more aware of these growing transfer options, AS enrollment can be expected to grow at the community colleges, which in turn should continue to precipitate more AS degree holders transferring to the four-year institutions. The growing AS-to-BS phenomenon and the influx of technically and occupationally focused students at the community colleges and universities will impact our entire higher education system. It is important that we examine this phenomenon now to determine its future impact on workforce development, institutional practices, enrollment, curriculum, states' articulation policies and system-wide budgetary impacts.

AS-to-BS articulation and transfer is relatively new for many higher education systems, which contributes to the deficit in research on this specific transfer student population. We do not know much about their sequential performance across the educational system. The university generally does not require information about the high school background of upper-level transfer students. Thus, we know little about their development while at the community college; and with the exception of their admission

application information and college transcripts, we know almost nothing about their lives or their past educational experiences.

There have been numerous research projects studying AS-to-BS articulation and transfer policy, but few have examined the AS/AAS transfer students themselves. This study will execute an in-depth analysis of AS transfer students to begin filling some of the informational voids about them. A rigorous and thorough analysis of these students is a necessary step to improve our understanding of this population at the university, to advance our articulation and transfer policies, and to identify potential institutional issues that may be specific to this group of transfer students.

Purpose of the Study

The specific purpose of this study was to analyze the student characteristics, engagement and success of Associate in Science (AS) degree holders who have transferred into the Bachelor of Science in Applied Science (BSAS) program at a major southern research university.

Little is know about this relatively new student population within the university. This study examined the current population of AS transfer students and accessible graduates (approximately 250 persons) who transferred into the BSAS program since its recent inception in 2003. This is a descriptive study of a particular population (BSAS students). Some of the resulting student descriptors may be viable for comparison to other similar student populations for whom generic data already exists, but this was not the intent of the researcher. In such cases where the researcher anticipated the opportunity to execute minimal comparative analyses to determine likenesses and differences to

undergraduate counterparts, those opportunities were identified or promoted as potential areas for further study.

This study increases our understanding of this specific student population within the four-year institution, provides insight for institutional leaders to better meet these students' potentially distinct academic and developmental needs, and better informs future AS-to-BS articulation and transfer policies.

A case study method was used to collect and analyze qualitative data derived from focus groups and a comprehensive student survey. Student information was drawn from student data available within the institutional database, which extended the researcher's ability to compare and contrast other limited statistical and quantitative data points through frequency, means and standard deviations of data such as age, persistence toward degree completion and grade point average.

According to Yin, "the embedded case study is a research strategy, an empirical inquiry that investigates a phenomenon within its real-life context. The case study method can mean single or multiple case studies to include quantitative evidence, multiple sources of evidence and prior theoretical propositions" (Yin, 2002).

Research Questions

The following three research questions guided the scope and design of this study:

1. *What are the demographic and academic characteristics of BSAS transfer students?* Student characteristics were determined by a comprehensive descriptive analysis of student demographics, academic background such as age, race, gender, BSAS major, transfer GPA, transfer hours, university GPA, university credit hours earned, residence's distance to campus, test scores, marital status, family educational

level, socioeconomic status, and other factors revealed through the survey that I helped define this student population (APPENDIX C).

2. *How have BSAS transfer students engaged in their educational processes and connected with their academic institutions?* Student engagement included students' perceptions about the relevance of curriculum to their career goals; their relationships with faculty and peers, their involvement and engagement with academic activities, institutional/student organizations/membership, and perceptions about their past and current experiences as a student. This question evaluated engagement through students' self-reported assessment of their development and the changes they incurred over time and across educational settings (APPENDIX C).

3. *Are BSAS transfer students succeeding at the university?* Student success in this study was measured by grade point average, persistence, degree completion and survey responses. These data afforded minimal quantitative analysis of information drawn from institutional archival data to describe academic performance through analyses of community college grade point average, university grade point average and persistence (APPENDIX C).

Design of the Study

The research design used in this study was the embedded case study. The dominant design of this study relied upon a qualitative analysis of the AS transfer student at one large U.S. urban university in the South utilizing the survey method to determine demographic and academic characteristics, student engagement, and employed a limited quantitative analysis of information drawn from the survey and institutional student databases to describe student success.

According to Yin (2003), an embedded case study contains more than one sub-unit of analysis and provides a means of integrating quantitative and qualitative methods into a single study. The identification of these sub-units provides a more detailed level of inquiry and allows for an empirical research design appropriate for descriptive studies to describe features, contexts and processes of a phenomenon. In an embedded case study, the goal is to achieve a holistic understanding of the case(s) and the different units of analysis which require the use and integration of quantitative and qualitative methods to achieve the goal (Scholz & Tietje, 2002).

Methods

A unique strength of the embedded case study is its reliance on multiple sources of evidence to add breadth, depth and richness to the description of a phenomenon which contributes to the validity of the research (Yin, 2003). An extensive survey instrument was designed using specific and relevant questions to identify the characteristics of the AS transfer student (Appendix C). The student survey primarily consisted of qualitative responses expressing individual student characteristics and their engagement with past and current educational pursuits. According to Kuh (2005a), student engagement is “the amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success”. The annual administration of the National Survey of Student Engagement (NSSE, 1999-2007) and the Community College Survey of Student Engagement (CCSE, 2003-2007) have assessed student engagement for the purposes of identifying how institutions may better allocate resources to improve undergraduate learning opportunities, but these surveys have not focused on particular subgroups within the undergraduate population such as the AS population. This

study examined student attributes similar to those measured by the NSSE and CCSE, but with a more narrow scope of inquiry toward the AS-to-BS students concentrating on their particular experiences, engagement, success and development across the P16/K20 systems. Quantitative data was also collected from the survey and the university's institutional databases to describe the AS transfer students' demographic and academic characteristics.

A preliminary focus group was employed to further develop the survey instrument and validate that it contained the necessary questions to reveal the most comprehensive and holistic description of student characteristics, engagement and success. The focus group discussions were conscientiously recorded and audited to that ensure all questions and data elements identified for inclusion in the survey were valid, and to identify necessary editing and refinement of the survey instrument prior to the broad distribution to the BSAS population. The inquiry process and methodology are described in great detail in Chapter 3.

Definitions

For the purposes of this study, the following terms are defined to ensure an understanding *of the concepts pertaining to articulation and transfer*:

Andragogy is a theory of adult learning that emphasizes the self-directed character of adults and focuses on the process of learning rather than content (Knowles, 1975, 1980, 1984).

Articulation is the process by which “schools, colleges and universities coordinate their programs and services to facilitate the movement of students through the educational system” (Florida Community College System, 1997).

Articulation agreement is a written guideline between and among secondary and postsecondary institutions that facilitates a smooth transition for students, eliminating duplication of courses or content from one educational environment to another (Just & Adams, 1997).

Associate in Applied Science degree (AAS) is a program “designed to lead the individual directly to employment in a specific career. It is strongly suggested that one-third of the work for the associate in applied science degree shall be in general education. While the titles given these degrees vary considerably among community colleges, the most common title is associate in applied science. Although the objective of the associate in applied science degree is to enhance employment opportunities, some baccalaureate degree granting institutions have developed upper division programs to recognize this degree for transfer of credits. The associate in applied science degree programs must be designed to recognize this dual possibility and to encourage students to recognize the long-term career possibilities that continued academic study will create (AACC, 1998).

Associate in Arts degree (AA) “prepares the student to transfer to an upper division baccalaureate degree program. [it] gives emphasis to those majoring in the arts, humanities, social sciences, and similar areas. It is recommended that a substantial component of the associate in arts degrees, three-quarters of the work required, shall be in general education (AACC, 1998). *Associate in Science degree (AS)* “gives emphasis to those majoring in agriculture, engineering and technology, and the sciences with substantial undergraduate requirements in mathematics and the natural sciences. It is recommended that a large component of the associate in science degree, one-half of the work required, shall be in general education. Students awarded associate in arts or

associate in science degrees should be accepted as junior level transfers in baccalaureate degree granting institutions” (AACC, 1998).

It is important to note, that the Florida AS degree is dissimilar from the AS degree in most states. It was not originally designed for transfer to a four-year institution, and it is still a limited transfer degree. The Florida AS degree is only slightly different than the Florida AAS degree, usually only requiring an additional three credit hour general education course beyond the AAS prescribed curriculum.

Bachelor of Applied Science (BAS) degree is a program designed to capstone a previous technical or professional two-year degree with emphasis on applied skills and experience (Saint Petersburg College catalog, 2006).

Bachelor of Science in Applied Science degree (BSAS) is a degree program designed for AS graduates who desire a bachelor's degree for self-enrichment, advancement in their current career or to qualify for higher-level employment in other settings. AS graduates looking for a flexible Bachelor's degree program will find the BSAS degree recognizes the value of academic work already completed, and requires only 60 additional credit hours beyond the AS degree (University of South Florida catalog, 2006, Appendix B).

Capstone degree is a degree that gives occupational students who have changed their educational and occupational goals an opportunity to pursue a four-year degree; is an alternative option for obtaining the four-year degree requiring no more than two additional years of college (60 credit hours); and seeks to recognize the similar objectives in both two-year occupational programs and four-year baccalaureate degree programs (Southern Illinois University catalog, 2006-2007).

Career-ladder degree is a two-year degree designed to transfer from a specific academic discipline, such as an Associate degree in nursing into a bachelor's degree in nursing.

Inverted degree is conceived as a sort of an “upside down” transfer degree, with more specific/career-based studies in the first two years and more general studies taken in the junior and senior year at university. The first two years of the program are completed with an Associate degree (AS or AAS) largely focused on technical or occupational course work not traditionally transferable toward baccalaureate education. The general education course work and a concentration in a discipline-based study area make up the last two years of upper-division work (Washington State Community College Transfer Guide: Whitworth College/Evergreen State College, 2007)

K-20 education system is designed to connect K-12 and postsecondary education by increasing learning at all levels and readiness for postsecondary education without remediation. Florida's education system shall be a decentralized system without excess layers of bureaucracy. The system shall maintain a system-wide technology plan based on a common set of data definitions (Florida Statutes, 1000.03, 2006).

Transfer is the actual student movement from one institution to another, or from one academic program level to another. Students may “reverse transfer” from the senior institution back to the community college, or “double-transfer” from the community college to the university and back to the community college. Transfer also pertains to the procedure by which student credit hours earned at one institution are applied toward a degree at another institution (Education Commission of the States, 2006)

Delimitations of the Study

The study only executed a description of AS transfer students in a single baccalaureate degree program at one large southern urban university.

Limitations of the Study

The following were considered limitations of this study:

- Although the survey questions were designed to make them as easy to understand as possible, each person surveyed may have interpreted the survey questions differently or had difficulty selecting an accurate response on Likert scaled items.
- Generalizations may be limited to the Florida community college system and the Florida State University System. The Florida AS degree is somewhat comparable to other states' AAS degrees, but minor differences could preclude an accurate one-to-one comparison.

Outline of the Study

In this study, a review of the literature is presented in Chapter Two including a brief history of articulation and transfer in higher education, theories relative to the non-traditional college transfer student, adult learning, and postulations about student engagement and success. Chapter Three outlines the research methodology, the design of the study, participant coordination and communication, data collection procedures and methods of analysis. Chapter Four offers the results of this study providing a comprehensive analysis of the data collected and a review of the research process. Chapter Five summarizes the study by emphasizing findings, and outlining implications of the study for future practice and future research.

Chapter Two

Review of the Literature

Students with an Associate in Science (AS) or an Associate in Applied Science (AAS) degree are predominately working adults who have completed study at a two-year college degree in various scientific, technical, occupational or professional programs. Upon completion of their two-year degree, many of these students enter the workforce and years may pass before they realize the need to advance to the bachelor's degree for career advancement or to pursue an alternate career path. Other AS/AAS students may desire to transfer directly to a senior institution upon the completion of their two-year degree to achieve their personal and professional goals. In view of this general understanding of the AS/AAS transfer student population, the following literature review examines the theories related to the non-traditional student, adult learners, social development, cognitive development and transfer articulation policies.

It is unfortunate that senior academic institutions and state educational systems have not historically provided efficient transfer pathways for technical, occupational, and vocational associate degrees. Many institutions and educational systems throughout the United States, in fact, have long regarded such two-year curricula as career training. This led them to be considered as non-transferable two-year degrees, and few state systems legislated them for transfer to baccalaureate programs of study. According to Cohen and Brawer, in the 1970s, the U.S. Office of Education popularized the term *career*

education. This term collectively encompassed occupational, vocational and technical studies. Career education was “originally conceived as an essential component of terminal study – education for students for students who would not go on to further studies” (Cohen & Brawer, 1996, p.22).

AS/AAS students who transfer to a senior institution are routinely categorized as non-traditional adult students – defined here as students aged 24 or older. This is due to the fact that many of these students completed their AS degree and directly entered the workforce. After a period of time on the job, they often encounter opportunities for career advancement that require a bachelor’s degree. Others realize the need for further education to effect a career change. Still others may desire further education for personal enrichment. Regardless of their reasons, many of these non-traditional adult students now seek re-entry to higher education. This situation is not new. Since the 1970s, young workers have been entering the job market in entry-level positions and finding it difficult to climb the occupational ladder. They encounter what has been termed the “promotional squeeze” (Best and Stern, 1976). In this instance, occupational ladders become so congested that people seek alternatives to their current occupation which may require additional education. This phenomenon ultimately impacts higher education because new technologies and changes in the workforce demand new curricula. In 1978, a study estimated that nearly forty million Americans were in a state of career transition; sixty percent indicating they were planning to seek further education (Arbeiter, et. al., 1978).

For many AS/AAS degree holders, however, their two-year degree has historically been viewed as the final education and training plateau for their profession. It was identified as a terminal degree, because the student was not expected to require nor

pursue any further higher education for his/her profession. Although these students may have demonstrated persistence through often rigorous academic programs to achieve their two-year degree; although they may have matured chronologically and experientially; and although they may have exhibited the motivation and sense of purpose for successfully pursuing a bachelor's degree, they have often been denied access to the senior institutions due to the non-transferability of their AS/AAS credential. Their vocationally-oriented degrees often "carry lower status and do not find any easy counterpart at four-year colleges" (Townsend & Twombly, 2001, p.132,). There is also a subjective discernment that community college students are inadequately prepared, both academically and socially, for college-level learning (Howell, 2001). Earlier notions of the terminal degree, as an alternative for students who might not be suited for the university degree, may prove difficult to overcome by those with a traditional mindset about higher education. Further compounding the negative perceptions of these students is a historically jaundiced generalization of community college students. As Cross (1971) illustrates:

By the time the community colleges were developed, most young people from the higher socioeconomic groups and most of the high-aptitude aspirants were going to college. The majority of students entering the open-door community colleges come from the lower half of the high school classes, academically and socioeconomically (p.7).

And terminal degrees were meant for the student who was never expected to transfer, "thus potentially keeping unfit students out of the university" (Townsend, 2001, p.64).

These perceptions are rapidly changing for today's AS/AAS degree holders. Many states now advocate improved articulation and transfer of these career degrees. In Florida, there is strong state support for a seamless K-20 lifelong learning system. As the case in many states, the Florida community college system serves as the open access portal for higher education as well as the primary provider of career education. Collegiate transfer education and career education have generally resided within the community college as two distinct missions throughout their past, but student behavior documented by Palmer (1987) decades ago, as well as recent statewide articulation for AS-BS transfer have blurred this distinction. Cohen and Brawer (2003) note that changing demographic patterns and public perceptions about the purposes of the community college have led to a "blending in the uses of vocational and collegiate education" (p.31). Community colleges are now expected to meet the demands of changing civic, social and vocational needs of a community, and the blending of these demands has created both the environment and the need for AS-BS articulation and transfer.

The following review of the literature covers the dominant scholarly themes relevant to this study of AS-BS transfer students. This chapter outlines the prevailing literature on nontraditional transfer students, theories of adult learning, postulations about student development and student engagement, and a brief history of articulation and transfer issues that have lead to Florida's current statutes regarding AS-to-BS transfer. It is anticipated that each of these themes will be useful for providing a consolidated framework for the description and understanding of the BSAS student population.

The Non-traditional Student

Most adult learners (also called nontraditional students) are 24 years of age or older and may have been out of school for a period of time. The non-traditional student is “an adult who returns to school full- or part-time while maintaining responsibilities such as employment, family, and other responsibilities of adult life” (Benshoff and Lewis, 1992).

A more comprehensive review of the literature and research on the non-traditional student reveals that there are more subtleties to their identification leading to a need for categorization – to further define the adult/non-traditional student. In 1987, The Organization for Economic Cooperation and Development (OECD) developed four categories: 1) adults who enter or re-enter higher education with a prior major break in their formal involvement in learning; 2) students enrolled in academic studies who represent specific chronological age categories (such as over 25); 3) adult students who enter higher education on the basis of mature life experiences (gained through work, family life, or community involvement); and 4) adults who have completed a higher education degree at an earlier stage and now re-enter for professional updating or to pursue a second academic area of expertise (OECD, 1987).

Information on the increasing number of non-traditional learners was provided by a 1997 survey of private college students in Florida, which indicated that fifty-eight percent were nontraditional students. More specifically, nineteen percent were in their 30s, twenty percent in their 40s, and eight percent in their 50s. Of these, forty-five percent were at least 30 years old before they returned to school; eighty percent were

female; fifty percent were single and had never been married; thirty-eight percent were married; and eleven percent were divorced or separated (Kinsella, 1998).

The National Center for Educational Statistics (NCES, 2000) showed that adult learner enrollment had risen by seven percent between 1990 and 1999, and projects a further increase of nine percent during the period 1999-2010. These increases will likely occur in students seeking occupational or professional curriculum. Figures from the Office of Vocational and Adult Education indicate that academic courses of greatest interest to the adult student are recreational or vocational in nature. The subject areas of interest to adult learners were broken down as follows: hobbies/recreation – 42 percent, vocational subjects – 35 percent, business – 22 percent, engineering – 15 percent, health care – 13 percent, philosophy/religion – 7 percent, and education – 7 percent (U.S. Department of Education, 1998).

Relating the AS student to the general community college population may not fully capture their unique characteristics as a sub-population within the community college, but a well-founded generalization can be useful as a point of reference. Clifford Adelman (2005) offers such a basic description of the community college student with an emphasis on four primary characteristics: age, institutional type, transfer, and educational expectations. Adelman suggests that the first and foremost concern in describing community college students is differentiating the population between age groups. The second distinction should be the kind or type of two-year institution. The third important descriptor is how they transfer. He points out that transfer students now engage in increasingly complex enrollment patterns and the definition of transfer must be tightened

up. Finally, students' aspirations should be compared to their real level of educational attainment (Adelman, 2005).

According to Cohen and Braver (2003), the growth of community colleges, their expansion of programs, opportunities for part-time enrollment and demography have had a profound impact on the enrollment of adults. The authors cite that the mean age of students enrolled in credit courses in 1980 was twenty-seven years of age. By 1986, the mean age of these students had climbed to twenty-nine years of age, and it remained at twenty-nine through the late 1990s (Cohen and Braver, 2003, p.39).

The research concludes that the undergraduate non-traditional student population is growing in numbers and in age. And as state policies continue to expand their opportunities for admission and transfer, we should prepare for even more non-traditional students in the years ahead. Recent trends in the articulation of the AS/AAS degrees have created another new pipeline for the non-traditional student which should induce even more adults to come to university campuses. Within higher education, however, there may still be some who hold innate institutional perspectives about the non-traditional student which are inconsistent with the institution's growing adult clientele. Kasworm (1990) captures some of these concerns as she points out:

There are serious questions raised regarding the legitimacy of adults to participate in undergraduate studies. This perspective is perhaps best stated by Boyer (1974), who argues that higher education has perceived adult students as 'misfits in a strange and foreign land, viewed as retreads in a kind of salvage operation, sadly out of step with the learning cycle and even with the life cycle itself (p.6).

Kasworm further recognizes that there are leaders in higher education who would argue that these adults already had their chance (and passed it up) for an undergraduate education in their early years. And yet further, in an extensive review of adult-learner research, she notes that a great many of the earlier studies of adult students were conducted as an “image of implied deficiency” examining their inferior academic performance or age-limiting factors to their cognitive performance (Kasworm, 1990).

Regardless of one’s perceptions about the suitability of non-traditional students to be at the university, they are here. They are here in large numbers. Of the 12.7 million undergraduates nationally, thirty-nine percent are categorized as non-traditional. That’s about 5 million students (NCES, 2002). So regardless of their preparedness for university study, the university will need to be prepared to teach them.

Adult Learning

According to the National Profile of Community Colleges (2000), nearly half of all enrolled community college students in 1997 were twenty-five years of age or older. Of these, thirty-two percent were at least thirty years of age or older. Fifty percent worked full-time and eighty percent worked part-time. Adding further impact to this profile is the extended time-to-degree for community college students as many of those under the age of twenty-five at the time this data was compiled were likely over twenty-five before completing their associate’s degree. On a national level, the number of AS/AAS students is quite large. Nearly a half-million associate degrees were conferred in 1997 and over half of these were technically, professionally or occupationally oriented degrees (National Center for Educational Statistics, 1999). Townsend (2001) also noted

that in the 1996-1997 academic year, associate degrees conferred in applied fields nearly doubled that of the liberal arts degrees (p.66).

This researcher presumed that the Florida AS transfer student will likely mirror the generic community college student profile, and the researcher further speculated that the AS transfer student would be more predominately full-time working adult students than those in the broader national profile. This suggested that an understanding of the adult learner was requisite for an appropriate analysis of this transfer student population. Consequently, understanding adult learner theory and its applicability to the AS/AAS students in the higher education environment would be useful for determining how the university might adjust policies, procedures and allocation of resources for this student population.

According to Malcolm Knowles, the stage at which an individual assumes the self-concept of being self-directed is the point he/she becomes an adult. This is also when the person attains a psychological need to be perceived by others as a self-directed individual. Failing to recognize this aspect of self-directedness in the educational process may create tensions for the adult learner resulting in “resentment and resistance” to learning processes they perceive as treatment for children (Knowles, 1978).

Differentiated from child learning – pedagogy – Knowles adopted the term *andragogy* to represent his theory of adult learning that emphasizes the self-directed character of adults and focuses more on the process of learning rather than content (Knowles, 1975, 1980, 1984). His notion of adult education (conceived as a process much different than youth education) conveys the adult’s social responsibility,

community engagement, and personal motivation to learn (Tawney, 1920; Lindeman, 1926).

John Dewey (1859-1952) and others supported this notion that adults will seek learning that will help them cope with life. Learning must be connected to their lives, provide useful knowledge, increase their self-esteem, or aid in dealing with an experience or an anticipated life-changing event (Dewey, 1938; Rogers, 1969; Cross, 1981).

Some contemporary theorists have suggested that andragogical theory is problematic within the mainstream positivist paradigm. Instead of a focus on processes, they argue that adult learning methods should employ an interpretive approach within a postmodern perspective embracing the adult's experiences, circumstances, and interests (Candy, 1991; Brockett, 1991; Jarvis, 1992).

As Speck (1996) points out, adults will commit to learning when the goals and objectives are considered realistic and important to them. Application in the 'real world' is important and relevant to the adult learner's personal and professional needs. They want to be the origin of their own learning and will resist learning activities they believe are an attack on their competence. They need to see that learning and their day-to-day activities are related and relevant. Adult learners come to learning with a wide range of previous experiences, knowledge, self-direction, interests, and competencies.

Adult cognitive development represents the shift in psychological inquiry from a behavioral focus to a cognitive focus beginning in the 1950s. Early scholars such as Lashley (1923) pointed out behaviorism's inadequacies, and in the 1950s Chomsky demonstrated the power of grammar to make sense of language (Chomsky, 1955; Gardner, 1985). Miller (1956) described the constraints of human memory; Bruner,

Goodnow, and Austin (1956) characterized the how people use their cognitive resources; and Broadbent (1958) developed a model of human information processing to account for adults' intake, use, and storage of information.

Newell and Simon's (1972) work demonstrated the vastness of the cognitive puzzle. Important work in the area of metacognition was conducted by Garner and others (Garner, 1987; Garner & Reis, 1981; Garner, Wagoner, & Smith, 1983) in a series of investigations into the comprehension monitoring strategies of good and poor comprehenders. An interesting aspect of this work was the use of tutoring as a context in which students verbalized the strategies they used to overcome obstacles to their comprehension (Garner & Reis, 1981) and to answer questions (Garner et al., 1983).

Jean Piaget (1896 - 1980), a Swiss scholar in philosophy and epistemology, received his Ph.D. at the early age of twenty-two. He became very interested in the fields of inductive reasoning and experimental psychology. Throughout most of his career he observed genesis of intellect in children using various experiments. Most interestingly, Piaget noted that a child's intelligence operations were formed by sensory-motor actions long before the acquisition of language. This suggests that hands-on learning is a fundamental human way of knowing.

Originally trained as a biologist, Piaget considered himself as a "genetic epistemologist" with a primary interest in how one comes to know. Piaget eventually came to believe that the most important influence on a child's cognitive development was their interaction with peers. Peer interaction invariably leads to cognitive conflict resulting in debate/argument among peers, and this conflict causes the child to consider

their peer's point of view, examine the possibility of the alternate reality, and ultimately make a judgment or adjustment to their own point of view.

Piaget identified four stages of cognitive development ranging from rudimentary reflex actions to complex abstract thinking. Although his work primarily focused on the biological and genetic aspects of cognition, he later acknowledged the inescapable social influences on cognition as he noted, "There are no more such things as societies *qua* beings than there are isolated individuals" (Piaget, 1932, p.360).

These scholars address adult learning, its relevance to the type of student who relates educational processes to their work and life experiences. Adult learning theory may be closely linked to the applied science student. The AS/AAS student is more likely an adult, a full-time worker and a part-time student. Adult learner theory and the AS/AAS student are analyzed and the consequential connection to BSAS students are discussed in Chapter Four, and their implications are discussed in Chapter Five.

Social and Cognitive Development

A critical aspect of this study was the examination of AS transfer students' engagement in their educational processes as they had migrated across the K-20 educational system. Integral to human development are one's cumulative life experiences, associations and influences. It is similarly postulated that the environment in which one exists plays an important role in their perception of the world. An understanding of these students' perceptions and their individual transformations over time afford the researcher a more potent descriptive analysis of the AS transfer student and their preparedness for baccalaureate study. These analyses of student engagement

across the K-20 system are grounded in the fundamental theories of social and cognitive development outlined herein.

Emile Durkheim (1858-1917) was one of the first social scientists to use an empirical method in his studies of societal issues in Europe, and specifically in his study of suicide rates. Durkheim is credited by most with making sociology a science. He created the term “anomie” – a retreat from social control – and provided a comprehensive examination of society showing that the aspects of a society are much like the integral parts of a machine. This concept has since been labeled “functionalism” representing the paradigm of most sociological study today through the investigations of real life within organized society.

Two of Emile Durkheim’s works directly reflect his contemplations on the interconnectedness of education and sociology. In *Education and Sociology* (translated in 1956), he explicates his notion that society, in fact, dictates the manner in which we conduct education, "The man whom education should realize in us is not the man such as nature has made him, but as the society wishes him to be; and it wishes him such as its internal economy calls for" (Simpson, 1963, p. 99).

In the other, *The Evolution of Educational Thought* (translated in 1977), he urges teachers to prepare students for the future knowing that there are societal pressures to influence them from open thought:

He [the teacher] must be on his guard against transmitting the moral gospel of our elders as a sort of closed book. On the contrary, he must excite in them a desire to add a few lines of their

own, and give them the tools to satisfy this legitimate ambition (Collins, 1977 p.162).

John Dewey (1859-1952) was a student of philosophy, psychology, and pedagogy who was considered a functionalist interested in the “function” of behavior. Influenced by Darwin and his views of the social realm, he adopted the functionalist idea that societies evolve and education was one of the most important instruments for its evolution (Berliner, 2002, pg. 9).

Dewey believed there was an intimate connection between the holistic environment in which humans exist and their psychological processes. He concluded that as our history, evolution, and culture pass through our societies we socially create the reality for the next. In *My Pedagogic Creed*, Dewey clearly stated his beliefs regarding the educational process and outlines the interdependence of society, education, and individual human development. Focusing on the individual’s connection to their own world, Dewey identified the social life of the individual as the primary basis for all education. He wrote:

I believe that the social life of the child is the basis of concentration, or correlation, in all his training and growth. The social life gives the unconscious unity and the background of all his efforts and all his attainments (Dewey, 1987, Art. III).

Lev Vygotsky (1896-1934) held the position that all human psychological functions are socially manifested from the environments in which we are integrally intertwined. Social origins and cultural heritage are critical to mental development in

human beings. This is explained further by Cole's and Wertsch's interpretation of Vygotsky's work:

Newborns are, of course, ignorant of the meanings of the artifacts they encounter and the ways in which those artifacts (including words of the language as well as diapers, mobiles, and pacifiers) are to be incorporated into action. At birth the cultural past is, literally, thrust upon them (Cole & Wertsch, 2003, pg.4).

The above representation of artifacts can be extended well beyond newborns to include all persons and all aspects of our historical, social, cultural, environmental, and political (and so on) influences throughout our lives. And the artifacts, as interpreted by those before us, are generally accepted as THE correct symbols, words, labels, and meanings from which we confirm or build new understanding of our world.

Vygotsky was a twentieth century Russian educational psychologist who employed sociocultural theory founded in the Marxist tradition of social theory. He believed that we acquire our ways of thinking through observing the behavior of others and interacting with others, and he believed that one's thoughts and behavior would certainly vary between cultures (Berk, 1994).

Jerome Bruner, one of the most influential figures since post World War II on educational policy in the United States, postulated that curriculum design was the paramount in the learning process. In *The Process of Education* (1960), *Toward a Theory of Instruction* (1966), and *The Relevance of Education* (1971), his work has focused on a structuralist approach where pragmatic teaching and learning of structures and relationships are intended to make subsequent learning easier. According to Bruner,

gaining knowledge is a process heavily predicated on curriculum structure and sequencing:

To instruct someone... is not a matter of getting him to commit results to mind. Rather, it is to teach him to participate in the process that makes possible the establishment of knowledge. We teach a subject not to produce little living libraries on that subject, but rather to get a student to think mathematically for himself, to consider matters as an historian does, to take part in the process of knowledge-getting. Knowing is a process not a product (Bruner, 1966, pg.72).

More recently, Bruner has come to fully appreciate how culture can impact our development. In *The Culture of Education* (1996), he reflects on this transformation in his earlier thinking, “Culture shapes the mind... it provides us with the toolkit by which we construct not only our words but our very conception of our selves and our powers” (Bruner, 1996).

Even with this later shift in the assessment of culture as an important factor in an individual’s development, Bruner would probably not abandon his notion that curriculum design should have *a priori* status in the learning process. Curriculum design would merely need to account for these culturally-based conceptions of students as the students are taught to learn the processes for gaining knowledge. Maybe one can not occur without the other, because our social environment provides us with our language, symbols, values and shared perceptions of the world – Bruner’s toolkit?

Albert Bandura recognized that the process of student development often occurs through interaction and observation of others. Bandura’s brand of social learning theory

generally focuses on the modeling of behaviors, attitudes and reactions of others. As a student of behaviorism, Bandura's methods are founded in scientific measurement and manipulation of variables to see their effects on one another. Through his observations he has certainly become a proponent of a theory that one's environment causes one's behavior, but he also convincingly suggests that behavior may reciprocally cause one's environment. He labels this as "reciprocal determinism" in which people create comprehensible symbols and meanings of their environment that actually contribute to the construction of their world.

Bandura's later work is based on his earlier analyses of psychological modeling and social modeling behavior with an emphasis on social cognition. His underpinnings with regard to self-efficacy and social learning have led him to become more of a social cognitivist. In *Social Learning Theory* (1977) he offers this following statement that endorses the significance of learning through the observation of others' behaviors:

Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (Bandura, 1977, pg.22).

A theoretical perspective that more closely relates to the applied sciences, and thus more applicable to the Associate in Science (AS) and Associate in Applied Science (AAS) degrees, is presented by Jean Lave. Her roots are social anthropology and social theory. She has concentrated much of her work on understanding how education occurs

through social practice. Lave suggests that “situated learning” is the learning that normally dominates most learning that occurs. It is learning that takes place within an activity, within a context and within the culture. Learning is “situated” because it happens within a specific social arrangement or community of practice, which is generally in contrast with abstract, out-of-context classroom learning. Situated learning requires significant social interaction and collaboration in authentic settings. This involves the actual practice of doing and participating as a general theory of knowledge acquisition (Lave, 1988).

Lave perceives that the acquisition of knowledge occurs in the contexts of shared relationships or various situations of co-participation. Working with Etienne Wenger, she has evaded cognitive processes in favor of examining the kinds of social engagements necessary for learning and development to take place. By observing that this occurs as we participate as members of a community, and by presuming that we construct our identities in relation to our communities, Lave adopts the view that there is a significant link between our learning and our human development through social engagement.

William Perry (1970, 1981), through extensive interviews with Harvard students, developed a conceptual map of students’ development. He asserted that students developed sequentially along nine specific stages and that their progression along these stages occurred through discovery and reconstruction that can be experienced at later points in the life span. Perry suggests that in the earlier stages of his scheme, individuals utilize a dualistic manner of perceiving the world – good or bad, right or wrong – derived from knowledge provided by authorities. These dichotomous views of the world passed

on by the authorities are considered absolute. In the latter stages of Perry's scheme, individuals begin to perceive alternative points of view and undeterminable "Truth" as well as the relative nature of knowledge and values (1970. p.57).

In *How College Affects Students* (1991, 2005) Ernest Pascarella and Patrick Terenzini offer an extensive overview of prominent studies on student development and provide numerous models and taxonomies of development theory. They acknowledge, however, that their work is primarily related to the traditional college student as an adolescent or young adult. Regardless of their focus, this text provides an extraordinarily thorough summary of the existing theoretical and conceptual foundations of examining student development and quite useful in identifying sources for college student attitudes.

Vincent Tinto's (1975, 1987 and 1993) theory of student departure is perhaps the most commonly referred to model in the literature on student retention. His longitudinal studies, grounded in Durkheim's model of suicide, relate rewarding encounters within the academic and social environments to greater student integration and persistence.

Conversely, according to Tinto's studies, one's negative experiences within the academic environment can cause the individual to avoid integration and depart or withdraw. This theoretical perspective may prove useful should this research reveal concerns about retention of the occupationally focused students.

Nancy Schlossberg (1989, 2000, and 2001) has focused much of her work on the issue of how adult learners cope with their transition into the educational environment. Schlossberg notes how the social and cognitive development of the adult population is very disparate, and how educational institutions need to better understand this growing population with the university to better serve them. She identifies the differing

experiences of adults moving in, moving through and moving out of higher education, and cites the “lack of synchrony” between this vast variability of adults and the educational bureaucracy. She suggests that the needs of adult learners differ drastically depending upon whether they are moving in, through or out of the institution, and that higher education needs to overcome their inherent obstacles to change. She identifies Lundquist’s five major obstacles (Lundquist, 1978) as “inertia, traditional socialization, inadequate information, traditional structures and rewards, and fear of the unknown (Schlossberg, Lynch & Chickering, 1989). Schlossberg’s work may prove useful in correlating the AS transfer students’ experiences to their engagement and development across the higher education environment.

A theory often cited for providing a framework for understanding student development is provided by Arthur Chickering and Linda Reisser in *Education and Identity* (1993). Similar to the aforementioned work by Pascarella and Terenzini, Chickering and Reisser categorize the vast inventory of existing theories on student development into four categories: psychological theories, cognitive theories, typology theories and person-environment theories. Unlike Pascarella and Terenzini, however, Chickering and Reisser recognized the need for such a theory to be applicable to both adolescents and adults (p.44). They subsequently developed the *seven vectors of student development* which were intended to illustrate the level of an individual’s development. The seven vectors are 1) developing competence, 2) managing emotions, 3) moving through autonomy toward interdependence, 4) developing mature interpersonal relationships, 5) establishing identity, 6) developing purpose, and 7) developing integrity (Chickering & Reisser, 1993). This theoretical framework may have utility in

understanding the adult AS-to-BS transfer student, but the complexity of applying this theory based upon self-reported measures for determining levels of development across each vector may prove too difficult for application within this study. Routine survey responses in the narrative form would be difficult to evaluate for their application to any one vector (or multiple vectors), and the degree of development within and across each of these vectors is too subjective for utility in this study. Where appropriate, the researcher included findings as they correlated to this theory in Chapters Four and Five.

Contemporary student development theory is now often viewed in terms of student engagement as outlined by George Kuh and others (1994, 1995, 2005, 2006 & 2007). Understanding how students connect to their environment and how the environment affects them can provide insight that accounts for the environmental impact on social and cognitive development. How students engage and succeed in the academic environment aligns well with many of the traditional theoretical perspectives of social and cognitive development as outline earlier in this chapter. Understanding the social and cultural environments of academic institutions in which the students have developed socially and cognitively along with and understanding of other social and cultural dimensions of the adult learner's diverse home, work and recreational environments can certainly help to inform us about their overall development as students and citizens.

Kuh's work on student engagement and success relies upon a survey (the NSSE) to determine students' perceptions about their experiences in their undergraduate academic environment and to measure their level of engagement within the academic environment. Through the NSSE, students respond to survey questions that assess their

level of integration, participation, and effort. The survey also measures the students' perceptions about their learning experiences.

The NSSE is an adequate instrument for the purpose of identifying institutional shortfalls and assessing the conditions necessary for enhancing the educational environment, but it does not fulfill the needs of this study – to provide a rich and comprehensive description of the BSAS student, assess student engagement, and identify how students have developed preparedness for success in baccalaureate study. Consequently, the researcher has designed a survey instrument that incorporates the general scope and design of the NSSE with questions structured specifically for the AS transfer student that address their unique circumstances and alternative academic pathway to the baccalaureate (APPENDIX C). This study relied heavily upon Kuh's conceptual framework of student engagement with a significantly modified version of the NSSE as the basis for determining how the AS transfer students have transitioned and performed across the K-20 system.

Transfer and Articulation

It is important to understand how transfer and articulation have evolved and led to the development of the AS to BS phenomenon. According to Ignash and Townsend (2001) the difference between articulation and transfer may best be described as the “who” and the “what.” Transfer is the student flow among institutions – who, and articulation is the movement of the student's credits from one point to another – what. Cohen and Brawer (1996) further explain:

Articulation is not a linear sequencing or progression from one point to another. It covers students going from high school to college; from two-

year colleges to universities and vice versa; double-reverse transfer students, who go from the two-year college to the university and back again; and people seeking credit for experiential learning as a basis for college or university credit (Cohen & Brawer, 1996).

Since the inception of the community college, transfer and articulation have been arbitrary and have varied widely among institutions (Knoell & Medsker, 1965). Early issues over transfer and articulation began as concerns between individual institutions rather than concerns of the state (Bender, 1990; Coley, 2000). But as American society evolved and higher education shifted from being perceived as a privilege to a public right, state-level involvement began to expand (Bender, 1990). According to Ignash and Townsend (2001), most early efforts to promote articulation and transfer were institution-driven and it was not until the mid-1980s that transfer and articulation became a stronger issue for the state (p. 175).

Although the community college was dominated by liberal arts curriculum and the transfer function since its inception, an occupational function of the community college has always coexisted within its mission. Eaton (1994) maintains that the two-year colleges did not develop exclusively as preparatory institutions for the four-year colleges, but as multipurpose institutions serving the collegiate and occupational functions. Eaton notes that early leaders of the community college movement, such as Koos, Ells and Campbell, acknowledged the strength of collegiate transfer education over occupational education, but still advocated the mission of providing terminal occupational programs for students unable to attend the university (Eaton, 1994).

The research reveals that prior to the 1960s articulation had been conducted on a voluntary basis between institutions (Rifkin, 1998; Coley 2000). By the mid-1960s, disputes over courses accepted by the university began to result in strengthened institutional policy statements, local agreements and inter-institutional committees, but the development of more formalized agreements was beginning to be brought about by the intervention of educational governing entities of the state (Cohen & Brawer, 1996; Ignash & Townsend, 2001).

In the *Spotlight on the transfer function: A national study of state policies and practices*, Bender (1990) revealed that almost every state, in varying dimensions, had developed a policy statement regarding the transfer of credit among their institutions. These varying dimensions of articulation policies among states are somewhat understandable since there are significant dissimilarities in educational governance among the states, dramatic variations in expenditures and “differences in institutional services and expectations regarding access and student flow” (Rifkin, 1998, p.5).

Contributing to this dynamic is the changing face of the transfer student population. High school graduates are simultaneously completing their high school diploma and associate degree through dual enrollment and college acceleration policies; two-year terminal and career education degrees are being articulated for full and complete transfer to the senior institution; and adult learners are returning or transferring for career change or career advancement. The changes in the transfer student population are an emerging concern for transfer and articulation practice (Rifkin, 1996).

The applied associate degrees come in many forms. Depending how a state identifies its associate degrees, applied degrees can include the associate of applied

science (AAS), the associate of applied arts (AAA), the associate of science (AS), the associate of specialized business (ASB.), or the associate in specialized technology (AST) (Bender, 1991).

A few states began articulating specific applied programs to transfer into specific bachelor's degree programs. For instance, Arizona was the one of the first states to initiate a statewide articulation agreement that included a pathway from an AAS in business to a bachelor's in business, and North Dakota developed similar agreements for the AAS in nursing, construction and industrial technologies (Ignash and Townsend, 2000b).

Twenty years ago, James Palmer (1987) conducted research addressing the perception that vocational students pursue discrete occupational tracks at the subbaccalaureate level, and that they opt to pursue such programs bypassing the traditional liberal arts curriculum because they are less academically capable. His findings, however, suggested that community colleges have interwoven the vocational courses with mainstream academic courses in the construct of vocational degrees, and although these vocational students' academic ability varied greatly they generally perform equally well in the vocational and non-vocational curriculum. Palmer's research also suggested that the intentions of vocational students warrant strong consideration. As they pursue such vocationally oriented curriculum for job-related objectives, they also express an ambition to transfer to the baccalaureate. Consequently, community college programming and statutory policies should recognize these dual intentions of vocational students to prepare for immediate employment and to transfer (Palmer, 1987).

Debra Bragg (2001) outlines the new challenges of vocationalism facing community colleges. She notes that the changing economy has resulted in the proliferation of jobs at the subbaccalaureate level requiring a skill set much different than the vocational jobs of the past. In many cases, the vocational careers offer substantial salaries and opportunities for advancement. Vocational work in the new economy is more technological, requiring greater analytical and problem solving ability, and exists in a constantly changing environment that demands continuous learning. As community colleges strive to serve the needs of the workforce, they must also recognize the need to integrate academic and vocational curriculum that prepares successful employees to be lifelong learners. Integrated vocational education, according to Bragg, must subsequently be created to fit within K-16/20 educational systems emphasizing career ladders and continuing educational opportunities (Bragg, 2001).

Articulation in Florida dates back to the development of their community college system. Florida's first two-year institution was Saint Petersburg Junior College, founded in 1927 as a private two-year college. The first two-year public institution, Palm Beach Junior College, was established in 1933, and remained the only public two-year college in the state until 1947. By the end of 1948, a community college system had emerged consisting of four publicly funded colleges – Saint Petersburg Junior College, Palm Beach Junior College, Chipola Junior College and Pensacola Junior College. By the 1950s, an articulation agreement existed that guaranteed the transfer of general education credits between the community colleges and the state's four-year institutions (Florida Department of Education, 1997; Wattenbarger, 2005).

In 1971, the Florida legislature enacted a statewide articulation policy, which by Statute, guaranteed the full transfer of the Associate in Arts (AA) degree. Throughout much of the early developmental period of higher education in Florida, many of the state's universities were conceived and built exclusively to receive upper-level students from the community colleges. Although the state eventually outgrew this concept, under this original design "only the University of Florida, Florida State University and Florida A & M were to teach their own freshmen and sophomores (Palinchak, p. 18, 1988).

Florida later established broader systemic requirements between and among the state's universities, community colleges and school districts in 1973 through Rule 6A-10.024 of the Florida Administrative Code which also called for acceleration mechanisms, exchange of ideas and improvements for academic programs and general education (Palinchak, p.19, 1988).

Prior to 1998, further articulation legislation covered the transfer guarantee for their thirty-six hour general education component and established the common course numbering system to insure similar courses maintained equivalency for transfer. During the 1998 legislative session, Senate Bill 1124 passed which amended Florida articulation law to include the transfer of Associate in Science (AS) degrees into various university Bachelor of Science programs, "according to standards established by the Articulation Coordinating Committee" (Florida Department of Education, p.1, 1998).

In 2002, the Florida Board of Education developed its Strategic Plan for the K-20 Education System. Section 01, Chapter 1007 of the Florida Statutes states that "it is the intent of the Legislature to facilitate articulation and seamless integration of the K-20 education system by building and sustaining relationships among K-20 public

organizations, between public and private organizations, and the education system as a whole and Florida's communities. The purpose of building and sustaining these relationships is to provide for the efficient and effective progression and transfer of students within the education system and to allow students to proceed toward their educational objectives as rapidly as their circumstances permit" (Florida Statutes, 2002).

The development of the AS to baccalaureate is integral to the concepts of a seamless system. Increases in the number of baccalaureate degree holders are viewed as important to building and maintaining a competitive workforce. Florida's Articulation Coordinating Committee has thus been very pragmatic and conscientious in their review and approval of new programs, but the Committee has been very receptive and responsive to new proposals. The introduction of new AS-BA/BS programs, however, has been inexplicably sluggish. Many of the universities have not yet expanded their offerings, nor actively promote the AS transfer option.

Florida articulation policy outlines the specific career ladder and capstone options available for students in the State of Florida. According to the *Statewide Articulation Manual: AS to BA/BS and ATD to AS*, the current articulated AS degrees available for transfer to a Florida university BS degree are in Nursing, Radiography, Hospitality, Electronic Engineering Technology, General Business, Applied Science, Computer Engineering technology, technology education, and criminal justice technology (Appendix D).

Not all AS-BS career ladder options are available at all institutions. The only career ladder options available at the University of South Florida are Nursing, Hospitality, General Business, Criminal Justice and Applied Science. The capstone

program, the Bachelor of Science in Applied Science (BSAS), affords students with any AS degree to transfer with a guarantee of sixty hours transferred. This is different than the career ladder options which require the student to hold the specific AS degree identified for transfer (Appendix D). This study focuses only on the AS transfer students in the BSAS program. Other than the AS to BS in Nursing at the University of South Florida, the BSAS is the only AS-to-BS program with a significantly large number of registered students. All other statewide articulated AS-to-BS options at the university have only a minimal enrollment through admission of AS transfer students.

Summary

A university degree is a prerequisite for an increasing number of occupations in most societies (Altbach, Berdahl and Gumport, 1999). Florida students with an AS degree now have an opportunity to acquire a university degree. We have begun to eliminate the terminal two-year degree. With this advance in statewide articulation, there is a growing number of students coming to the university about whom we know little. As a relatively new sub-population within the university, the quantity of research about them to date has been meager and the literature about them scant. We are then relegated to rely upon suppositions about who they might be, and turn to the theories that are the most applicable to the students they most resemble – the non-traditional, adult learner.

Emerging vocational education programs to meet the needs of the new economy and the new workforce may require significant changes in higher education's theory and practice as it relates to the AS-to-BS student. University and community college leaders need to create partnerships and collaborate with their communities to address new educational requirements for a new workforce, outdated perceptions about terminal two-

year degrees, instructional practices and the integration of vocational education into the broader public agenda of education for the workforce (Bragg, 2001).

With the recent and major shift in articulation and transfer policy, the wave of AS/AAS transfer students is far from reaching its crest. As more AS/AAS degree holders become aware of this new opportunity to re-enter higher education, we can anticipate their numbers will grow. And as new students enter the community college with the advantage of now pursuing a career-oriented degree that is not terminal, we can expect to observe significant increases in the number who make that choice over the AA transfer degree.

This review of the literature informs us of the nature of the non-traditional student and the adult learner. The scholars reviewed herein espouse the importance of understanding the university's environmental impact upon students' social and cognitive development. And many have tracked the political evolution and utility of transfer and articulation policies. These theoretical notions about the community college transfer student population have guided our policies and the treatment of transfer students for many years, but the student population within higher education is undergoing dynamic and significant change. For most of our history, technical and occupational students at the community college were not accommodated nor expected to transfer to the university. Now they are! It is time to examine who they are so that we are better informed to serve their needs and adjust our policies and our teaching as appropriate.

Chapter Three

Research Methods

This study examined the Associate in Science (AS) transfer students at a major research university in the South pursuing the Bachelor of Science in Applied Science (BSAS) degree. The primary focus of the study was a qualitative inquiry based upon George Kuh's (2005a, 2005b, & 2007) conceptual framework of student engagement to ascertain relevant attributes of this baccalaureate student population within the university. This comprehensive description of BSAS students was accomplished using a case study research design to determine the demographic/academic characteristics, engagement and success.

Purpose of the Study

As a relatively new transfer student population within this university, little was known about these students. This research yielded a comprehensive descriptive analysis through the collection of data and student's narrative accounts to begin building an inventory of knowledge about them. This body of knowledge can be used to better understand these students and to better inform higher educational leaders and policy makers how they might better align policies, instructional programs and services to meet students' needs, and the broader future needs of the workforce.

The researcher's intention was to thoroughly describe student characteristics, engagement and success of AS degree holders who have transferred into the BSAS program at the University of South Florida.

Research Questions

Three research questions guided the scope and design of this study. The purpose of each question is explained in detail below, and the relevance of each question is substantiated in the following expanded sections of this chapter. The questions are:

1. What are the demographic and academic characteristics of BSAS transfer students? Student characteristics will be determined by a comprehensive descriptive analysis of student demographics, academic background such as age, race, gender, BSAS major, transfer GPA, transfer hours, university GPA, university credit hours earned, residence's distance to campus, test scores, marital status, family educational level, socioeconomic status, and other factors revealed through the survey that will help define this student population (APPENDIX C).

2. How have BSAS transfer students engaged in their educational processes and connected with their academic institutions? Student engagement will include students' perceptions about the relevance of curriculum to their career goals; their relationships with faculty and peers, their involvement and engagement with academic activities, institutional/student organizations/membership, and perceptions about past and current experiences as a student. This question will also evaluate engagement through students' self-reported assessment of their development and the changes they incurred over time and across educational settings (APPENDIX C).

3. *Are BSAS transfer students succeeding at the university?* Student success in this study will be measured by grade point average, persistence, and degree completion. These data afford minimal quantitative analysis of information drawn from institutional archival data to describe academic performance through analyses of community college grade point average, university grade point average and persistence (APPENDIX C).

So, what are the academic and demographic characteristics of AS transfer students? The first research question seeks to reveal the attributes of these students. As a group, are they coming to the university with sound academic preparation? What were their majors at the community college? How did they perform academically in their previous academic settings? How old are they? What is their socioeconomic status? Are they predominately male or female, minorities, first in family to attend college, working full-time, married or single - living on campus or off campus? What are their intended areas of study and why? Much of this information can be compiled from archival and historical data retrieved from institutional databases. Data addressing this research question was compiled through student responses to the survey revealing information that was not be contained in archival data, yet was determined to be used as a compliment to existing data or to confirm existing archival data.

As Katherine Boswell (2004) and other researchers (Aldeman, 2005; Cohen & Brawer, 1996) point out, community colleges have long been the institution of choice for older students returning to school, students of color, and those from less affluent family backgrounds. She further notes that “these institutions enroll the highest proportion of students of color, new immigrants, part-time, commuting students who hold down full- or part-time jobs while pursuing an education, and eighty-five percent are employed, 54

percent full-time” (p.1). Do AS transfer students mirror this description? The answers to these demographic type questions will provide a rich description of the AS transfer student population.

The second research question sought to determine how students have engaged in their various educational settings. It was intended to draw upon students’ views of their migration across the K-20 educational system, their reasoning and motivations to attend college, their relationships outside and within the classroom, changes in their attitudes, personal and professional goals, and levels of satisfaction. Have their nature and forms of engagement changed over time? Answers to this research question relied upon qualitative responses from the survey to describe student engagement.

As Pascarella and Terenzini (2005) note, the research indicates that students generally experience significant changes in their cultural, aesthetic and intellectual attitudes through college attendance, and in all cases they indicate a “movement toward greater individual freedom, whether artistic and cultural, intellectual, political, social, racial, educational, occupational, personal or behavioral” (p.273). In these previous studies, however, these affects were the result of research conducted on traditional college students and the degree of change that occurred between their freshman and sophomore years at four-year institutions. It will be beneficial to know if these non-traditional AS transfer students reveal attitudinal changes by educational settings and experiences over time. This research question serves that purpose. As the research indicates, the environment in which one exists plays an important role in his or her human development (Dewey, 1897; Bandura, 1977; Vygotsky, 1978; and Bruner, 1996). It is thus presumed that the differing social, cultural and educational environments of

these students account for differences that are important to the AS transfer students' teaching and learning processes. It is clear that environment and developmental processes contribute to students' engagement and success.

Relating to these developmental issues are a student's past institutional exposures and processes. Have the majority of students taken remedial courses during their AS degree? How has their career focus changed through life experiences or as they have moved across the K-20 system? Do they consider themselves better learners now than in past educational settings? These and other developmental issues were relevant to the holistic description of the BSAS student population and future institutional integration of new AS transfer students. Analysis of survey responses provided answers and a better understanding about how they have engaged the different academic environments.

The third research question sought to determine students' levels of success. This question focused on students' performance and also examined success across the differing educational environments. Transformational processes leading to success and students' perceptions of their academic ability, intellect and behavior were examined through qualitative responses and narratives. Acknowledging that these students may have had different academic origins and different educational/occupational intentions than their university counterparts infers that their secondary and community college experiences were probably not similarly focused (as compared to traditional students) on preparing to attend the university and achieve academic success. This research question intended to identify students' academic goals, and to determine success through measures of grade point average, persistence, goal attainment, and narrative explanations from the surveyed BSAS population.

This final research question investigated how AS transfer students are performing academically at the senior institution and how they viewed their success with university curriculum. This question is quantitative in nature revealing grade point averages, persistence and degree completion rates, but the additional component of this assessment was the qualitative responses about student effort, conscientiousness toward studying, completion of assignments, engagements with academic advisors and additional comments or factors contributing to each. Consequently, this question required responses from the survey to be evaluated against data drawn from archival sources to see whether student responses compared and match well to archival data. This information contributes to a comprehensive description of student performance, and students' perceptions of their performance verified through institutional archival data. These data are presented descriptively, not analytically, by reporting means of community college grade point averages, university grade point averages, persistence to degree completion, as well as self-reported institutional and organizational memberships and participation. Other quantitative data on performance was further examined in terms of self-reported student effort relating to hours of study per week, personal evaluations of effort, and students' conscientiousness toward the completion of assignments.

The predominant existing sources analyzing student success such as Adelman's (2005) study and others rely on data about students' academic performance, attendance patterns, and degree attainment; not on social, cultural or psychological variables. Such quantitative analyses "cannot provide full accounts of attitudes, beliefs, peer groups, mentoring or counseling, or social activities that may have played significant roles" (Adelman, 2005, p.1).

This research has spawned responses and information that inspire further inquiry and analyses beyond the scope of this study. Such revelations from this study are identified and addressed in Chapter Five. In the process of this research, additional questions about this student population emerged, but they were not part of this study. Such questions include: Do these students' career-oriented backgrounds and education create a difference in their perceptions of the university from that of other undergraduate students? How well do BSAS students assimilate into the university culture? Are they engaged in university activities at proportional levels with other student sub-populations? Are they employed (full-time/part-time) at levels commensurate to other student populations? Do they live on campus? How does their credit hour enrollment compare each semester and overall to other students? At what rate do they persist in comparison to their undergraduate counterparts? The answers to these questions may also impact AS-BS articulation or influence future policy. Any information that may guide institutional actions in service of this unique transfer student population at the university is warranted. Unfortunately, the researcher had to reasonably limit this study to descriptive results, acknowledging that a 100 item survey instrument was already probably pushing the boundaries for adequate student participation.

Methods

The research design used in this study was the case study. The case study is the preferred research strategy when the focus of the study is a contemporary phenomenon within a real-life context and when the researcher has little control over events (Yin, 2003). This type of research can offer insight, enhance understanding, and provide meaningful guides for practice (Strauss and Corbin, 1998).

More specifically, this research employed the “embedded case study” method. According to Yin (2003), an embedded case study contains multiple units of analysis and provides a means of integrating quantitative and qualitative methods into a single study. The identification of these sub-units provides a more detailed level of inquiry and allows for an empirical research design appropriate for descriptive studies to describe features, context and processes of a phenomenon. In an embedded case study, “the goal is to achieve a holistic understanding” of the case(s) and the different units of analysis which require the use and integration of quantitative and qualitative methods to achieve the goal (Scholz and Tietje, 2002). In *Qualitative Research and Evaluation Methods*, Patton (2002) acknowledges the practice of combining qualitative and quantitative data as a research methodology. He states:

Research and evaluation studies employing multiple methods, including combinations of qualitative and quantitative data, are common. At the simplest level, a questionnaire or interview that asks both fixed-choice (closed) questions and open-ended questions is an example of how quantitative measurement and qualitative inquiry are often combined (p.5).

A limitation of the case study is its weakness regarding generalization. The study of a particular case may not generate results that correlate well to the peculiarities of another. However, as Stake (1995) points out, “we do not study a case to understand other cases. Our first obligation is to understand this one” (p. 4).

Participants in the study included all two-year transfer, AS degree holders, who have transferred into the BSAS program at a major research university in the South. Approximately 300 currently enrolled students and 100 graduates of the BSAS degree

were included in the population. The total population, including graduates, consisted of 407 students. The BSAS program has only existed for approximately four years, so all graduates are fairly recent and were expected to make a significant contribution to the overall BSAS population study.

To the extent that quantitative data was presented in this study, the data was primarily drawn from historical/archival information maintained in institutional databases and select items from the survey instrument. Further explanation of these areas of inquiry that were categorized and quantified are discussed in greater detail in the following section, *Statistical Measures*.

This study relied upon multiple sources of evidence to conduct a rich descriptive analysis of AS transfer students. Utilizing the embedded case study as a research method, the researcher was afforded the opportunity to examine various factors and determinants of AS transfer students which provided greater depth and breadth to the study. This comprehensive approach supported by many scholars advocates that a qualitative researcher studying a single phenomenon should be aware of “the criticality of considering all the multiple forces that shape the phenomenon” (Creswell, 2002).

Statistical Measures

Within this embedded case study, there are several observations and variables such as age, ethnicity, and grade point average that are described quantitatively (or using descriptive statistics). Observations from narrative responses in the survey instrument were best presented as non-analytical quantitative data reported via nominal scales (such as gender), ordinal scales (such as those that assign a ranking) or ratio measurement scales. Where appropriate, these type data were presented using range, frequency

distribution, mean and/or mode, and standard deviation. The survey instrument (Appendix C) is annotated with the researcher's identified measurement scale(s) to be used for each survey question.

A unique aspect of this study is an analysis of students' self-reported measures of engagement and developmental change that they may have encountered over their multiple experiences in secondary school, community college and the university. Relating to Schlossberg's (2000) work, learners incur changes in attitude and undergo developmental growth as they encounter issues and cope with adult life. The researcher believed it was valuable to know if positive changes occurred across the continuum of students' secondary, community college and university life experiences. An appropriate measurement design for this type of research is a comparison of means in which observations are observed on the same variable over several different experiences or occasions (Glass & Hopkins, 1996, p. 572).

The "within subjects" comparisons assumed independence of observations among subjects, homogeneity of variance, and sphericity (compound symmetry). Sphericity refers to the equality of variances in repeated-measures and occurs when the variances for each set of scores are equal. In accordance with these stipulations, students independently report their experiences across all three levels of education, each question is formulated for Likert scaled responses (homogeneity), normality of error is controlled through Likert scaled responses for each question, and sphericity is insured by all subjects' responses to each question being limited to only one of five possible Likert scaled responses for each of the three academic levels of experience measured. These survey questions have been

annotated on the survey instrument (Appendix C) as meeting the criteria for a comparison of responses (COR).

Similar to the comparisons that were used for the sets of three observations , there were several questions designed to generate a comparison of experiences over time for only two observations. An appropriate statistical measure for two sets of correlated observations, such as “before-after” paired data, is the paired t -test. In the end, this analysis was not required as the paired data were simple explanatory survey responses indicating either a yes or no answer.

Sequence of the Study

The sequence of the study occurred as follows:

1. Retrieved archival data. Collected applicable (secondary data) available from institutional databases for AS transfer student populations.
2. Developed the survey. Designed the survey instrument which consisted of 100 items of inquiry (open-ended questions and Likert-scale statements) to identify AS student characteristics, levels of engagement and levels of success.
3. Conducted a focus group. A focus group of approximately six BSAS students was convened to conduct a pilot validation of the survey instrument, and to recommend survey instrument modifications.
4. Administered the survey. An email was sent to each BSAS student (active and graduates) with a link to the web-based survey. Student surveys were tracked. Students who failed to submit a completed

survey within seven days from the initial email were sent a second email requesting that they complete and submit the survey within a second seven day period.

5. Final solicitation. A third and final request was made to garner survey completion and submission.
6. Data compilation and analysis. Data was electronically imported for compilation and analysis..
7. Results. Data was imported and analyzed through SPSS to compile results and report frequencies, distributions, means comparisons, and logical qualitative observations. The results of the data analysis were compiled and written into Chapter Four.

Data Collection

The unique strength of the embedded case study is its incorporation of a variety of evidence such as documents, artifacts, interviews and observations (Yin, 2003).

According to Merriam (2002), a qualitative study seeks to discover and understand a phenomenon, a process, participants' perspectives and world views, or a combination of these. Data are collected through interviews, observations or document analysis and then inductively analyzed to identify recurring themes and traits (p.6).

Qualitative Data: The main source of information (primary data) for this study was the BSAS Transfer Student Survey (Appendix C). The survey instrument was designed by the researcher to generate a rich description of student characteristics, attitudes, development and performance. Survey questions were initially framed through the researcher's working knowledge and understanding of the AS student population.

Questions were reframed and refined through preliminary interactions with BSAS students and a sample population of students in a focus group. The final version of the survey was administered to the population ($N=407$). Survey responses were then compiled, coded and categorized for analysis.

Quantitative Data: Archived information (secondary data) was retrieved from student data maintained within the Office of Admissions and the university's Office of the Registrar. Archival data included age, race, gender, AS major, BSAS major, transfer grade point average, community college transfer hours, university grade point average, university credit hours earned to date, and residency status. Due to the sensitive and personal nature of this information, all students' anonymity was assured and maintained throughout the entire research and reporting processes. Archival and historical data were used to provide comprehensive descriptions and non-analytical investigation of the BSAS student population.

Focus Group: The researcher conducted a focus group consisting of eight students (representing approximately two percent of the BSAS student population) to validate and revise the survey instrument. The focus group helped to identify student characteristics, engagement, success and other key issues relevant to describing their status as AS transfer students. Not all focus group invitees committed to participate due to scheduling issues, but twice the number actually needed were solicited with the expectation that up to half would not be available on a specified date and time which would still yield approximately six students. A "purposeful sampling" process was utilized to insure that major groups within the population were represented in the focus group. An attempt was made to comprise the focus group with representatives from the

population based upon their age, gender, ethnicity and BSAS major. This purposeful sample allowed the researcher to identify representatives for these dominant variations in the population rather than identifying a mere common core (Patton, 2002).

According to Greenbaum (1998) a focus group consists of a discussion lasting approximately ninety minutes, led by a moderator, involving persons who are recruited for the session based upon their common demographics, attitudes or activities germane to the topic. A full group contains about six to eight people and a mini-group contains four to six (p. 2).

The focus group was used to suggest questions for inclusion or deletion from the survey, judge appropriateness of questions, and validate the form and functionality of the survey instrument. Participants were selected through a purposeful sampling process of the BSAS student population and solicited to attend the focus group. Each prospective participant was sent a message via email describing the intent and purpose of the focus group along with the date, time and location of the meeting (Appendix E). The focus group was promised to be limited to ninety minutes. At the beginning of the focus group, participants were provided with a written copy of the Institutional Review Board (IRB) informed consent information, a reiteration of the purpose for bringing the group together, and a brief outline of the meeting agenda. The focus group discussions were recorded, the meeting was moderated by the researcher and observed by an independent third party.

The focus group completed the survey as a pilot test and validation of its applicability as a meaningful survey instrument. According to Converse and Presser (1986), participation in the pretest of a survey usually involves an interview setting where

respondents are asked to explain reactions to questions, wording or order. To strengthen the reliability and validity of the survey questions, they must be executed in the same manner each time. A survey question's validity is determined by how well it measures the concept(s) it is intended to measure (Weisberg et. al., 1989).

Survey: The survey was the primary method of data collection. The purpose of using the survey was to determine the characteristics, levels of engagement, and academic performance of AS transfer students in the BSAS degree program. The survey instrument consisted of questions requiring closed-ended, scaled-responses (Likert), affirmative or negative (yes/no) responses, and open-ended narrative feedback statements (Appendix C). Each question in the survey addressed various topics considered important to the research as they related to student characteristics, engagement and success.

Sampling of the BSAS student population was not required as the current number of BSAS students at the institution (approximately 275) was manageable for full solicitation of the entire population. It was the intention of the researcher to distribute a survey to all active students and currently accessible graduates of the BSAS degree. All BSAS students were sent an email message outlining the purpose and intent of the survey with a request to complete and submit their responses within seven days of receipt (Appendix F).

Distribution of the survey was executed via electronic email format with an embedded web link (Appendix F). Electronic surveys are becoming increasingly more common (Lazar, J & Preece, J., 1999), and research comparing electronic versus postal surveys confirms that electronic survey content results may be no different than postal

survey content results, yet provide strong advantages of speedy distribution and response cycles (Yun & Trumbo, 2000; Swoboda, et al., 1997).

Software applications such as Cold Fusion and Survey Wiz eliminate many of the construction and administration challenges of creating web-based surveys. In a study using a Web-based survey where open-ended questions were located after a set of coded questions, over 70% of the respondents provided additional information and explanations through the open-ended question opportunity (Andrews et al, 2003).

Collection of data provided through the survey instrument was conducted using multiple methods. Survey data was collected electronically. This electronically collected data was compiled within an Excel format for ease of coding and analyses using SPSS applications. Narrative responses were collected and coded manually by the researcher, categorized by dominant themes, and then analyzed using SPSS descriptive statistics as described in the next section.

Although the primary means of survey delivery was a web-based link, an alternative paper-based survey was made available to students. For both formats, headline information contained a personal statement by the researcher which included information about the purpose and intent of the survey, the relevance of the study to the participants, and precise text of the Institutional Review Board (IRB) informed consent (Appendix G).

Analysis of the Data

Data collected through focus group and the surveys was analyzed using SPSS and Excel software packages. Archival data retrieved from institutional databases and other quantitative data elements from the survey were favorable for discrete statistical analyses. Data reflecting age, race, gender, transfer grade point average, university grade point

average, transfer credit hours and university credit hours were described through statistical means, frequency distributions and standard deviations. Viable comparisons of any identified populations or sub-groups such as age groups, occupations or majors were compared. Within the design of this study, there were numerous deliberate inquiries about possible changes in development, performance or students' experiences across secondary, community college and the university settings. These comparative analyses of means across three educational settings, as previously described in the *Statistical Measures* section of this chapter, were used to assess students' changes across the K-20 educational system.

Upon review of the data collected in the survey, the researcher identified new themes relevant to this study which would be appropriate for further coding and analysis through either a quantitative or qualitative lens. According to Creswell (2002), the researcher initially develops a general sense of the data and proceeds to coding with regard to themes that are central to the topic being studied.

Researchers usually create their own response categories by naming and defining the categories of responses and then coding them according to their own understanding of the topic or domain, or category development may come from the informants during interview processes revealing topical themes not initially conceptualized by the researcher (Gubrium and Holstein, 2001).

According to Gubrium and Holstein (2001) coding is the pivotal first analytic step in conceptualizing a description of the data (p.683). Recognizing the critical nature of this step, the researcher will be sensitive to his own understanding of the BSAS student population as well as the perceptions of the students as they are revealed during the

conduct of the research (see Researcher's Biography at the end of this chapter). Data analyses will consequently rely on the researcher's interpretations of student responses within the constraints of good and ethical research practices, and the use of software packages (SPSS/Excel). SPSS® for Windows® is a statistical package useful for survey research applicable to higher educational study such as "understanding and evaluating student actions and attitudes" (SPSS.com).

QDA Miner is "an easy-to-use qualitative data analysis software package for coding textual data, annotating, retrieving and reviewing coded data and documents." It also provides "exploratory tools to identify patterns in codings and relationships between assigned codes and other numerical or categorical properties" (Kovach Computing Services, 2006, home page). Data coding for student survey responses, however, was straight forward and did not require the use of qualitative analysis software.

Validity

Of particular interest to the validity and reliability of data resulting from this study is its primary means of data collection – a web-based survey. There are numerous ways to insure the validity of data acquired electronically via a web-based survey. The use of standard validation procedures such as member checking and triangulation are now complimented by powerful software programs with capabilities of measuring reliability and validity (Williams, et. al., 2006).

A first major concern of validity in research is population sampling. Sampling of the population was not a concern for this study, because the researcher passed the survey to all active BSAS students and all accessible BSAS graduates. Purposeful sampling was only used for the selection of the focus groups participants.

A second concern deals with the validity and reliability of the research model as demonstrated through repetition. Over time, data results that are consistently duplicated “provide an increasingly strong validity argument” (William, et. al., 2006). To ensure the validity of data, the survey instrument was tested and refined through focus group evaluations and a pilot test to develop its validity and reliability as the primary measurement instrument.

Messick (1989) notes that threats to validity can be grouped into two general classes. The first, *construct under-representation* results from a study that is too narrow to faithfully represent the key facets of the construct. To avoid this threat, the research methodology for this study has incorporated a multi-faceted approach to identify a comprehensive and in-depth analysis of the specific phenomenon of BSAS students. The second, *construct-irrelevant variance* is found when the study exhibits variance that is not relevant to the tested construct. This threat was difficult to avoid in the early stages, because the researcher did not know which elements of data would be irrelevant to the study until working with the focus group. The possibility of construct irrelevance within this study would not be determined until after the coding process, and perhaps, not until the final analyses. Awareness and monitoring for each of these types of threats to the validity of this study was an ongoing activity by the researcher throughout the study.

Researcher's Biography

The researcher and principle investigator for this study has engaged in non-traditional career education and training as an instructor and curriculum designer over a 20 year military career. Upon his military retirement, he served as the coordinator for adult and transfer students, and later as the university's outreach coordinator working

closely with businesses in the service area of a major research university. Over the past five years he has served as the Director of Community College Relations, the BSAS Degree Program, and Leadership Studies. His familiarity with the BSAS student population is derived from regular and routine student contact over a five-year period in the capacity of Academic Advisor. Through recurring interactions with the regional community colleges and academic departments that deliver curriculum for AS degree programs, he has become very knowledgeable of the community college environment and programs.

The researcher's observations of AS students transferring to the university have undoubtedly impacted his general perceptions, but he acknowledges that these are merely perceptions which have yet to be confirmed through any empirical analysis of this student population. The researcher's hypotheses about the AS-to-BS transfer students are, to date, general impressions derived from personal interactions with the students whom he has conducted brief academic advising sessions. However, the researcher's familiarity with these BSAS students has afforded him a well-grounded sense that they are, indeed, a unique student population entering the university. Understanding their uniqueness is his prime motivation for this study. The researcher has conducted this comprehensive analysis of the BSAS student population to more precisely describe them and to better understand them utilizing Kuh's conceptual framework of student engagement. This new information will inform practice and guide the institution toward enhancement of our educational processes and provide the most appropriate means possible for educating this new and unique transfer student population at the university.

Summary

The research methods employed in this study were intended to provide a comprehensive description of the AS to BS transfer students at a major southern research university. As outlined herein, an organized and pragmatic approach to the research design was employed to collect and analyze data in order to generate a meaningful description of this student population using both qualitative and quantitative methods within an embedded case study. The deliberate and sequential processes of this investigation provided a reliable survey instrument which afforded well grounded analyses of AS transfer students' characteristics, engagement and success in the BSAS degree program at a major research university. Through the conceptual framework of student engagement, this study identified the student demographics and their various perceptions they hold about their learning experiences, personal reflections about their social and cognitive development as they have migrated across the K-20 system, and their views about their academic performance in higher education.

Chapter Four

Results

This study examined Associate in Science (AS) transfer students who entered the Bachelor of Science in Applied Science (BSAS) degree program at a major research university. This specialized program for two-year AS transfer students has become an increasingly popular bachelor's degree choice for those who have previously pursued technical or occupational programs at two-year institutions. Prior to implementing the BSAS degree in 2003, there were few opportunities for AS degree holders to efficiently transfer to a university, because the AS degree was essentially deemed a "terminal" two-year degree. Since 2003, however, a growing number of AS degree holders who were previously limited to participating in an illusory "K-14" system have been afforded access back into the academic mainstream of a K-20 system to complete a bachelor's degree. Consequently, we now have a new and growing population of students at the university with whom we have had little experience and about whom we know very little.

Utilizing George Kuh's (2005a, 2005b, & 2007) conceptual framework of student engagement, the researcher sought to ascertain possible unique attributes of this relatively new student population within the university using a case study research design to determine the BSAS students' specific academic and demographic characteristics, their level of student engagement and their record of progression through the K-20 system.

This research yielded a rich and comprehensive description of this student population which will help build the inventory of knowledge about them, help us better understand them, and better guide us in serving their needs. The information produced by this study is beneficial to educational leaders and policy makers who seek better alignment of academic policies, statutes, and laws that will support a truly seamless K-20 system; to better design instructional programs and services for citizens who may choose technical or occupational AS degrees and careers; and to better address the broader concerns of our future workforce.

This chapter includes the following sections: sequence of the study, retrieved archival data, survey data collection process, survey results (demographics, high school reflections, community college reflections, university reflections and narrative statements), comparisons across the K-20 experiences, responses to research questions and the conclusion.

Sequence of the Study

In accordance with the protocol outlined in Chapter Three, the sequence of the study occurred as follows:

1. Retrieved archival data: The researcher collaborated with the Office of the Registrar to create two reports of basic demographic and academic institutional data about the students – one report for active BSAS students and one report for BSAS graduates.
2. Developed the survey: Survey instrument designed to capture specific demographic information not collected via Registrar/institutional data elements. Researcher contracted and utilized Survey Monkey design software.

3. Conducted focus group discussions and piloted the survey: Focus group convened with sample representation of BSAS population. Pilot survey was administered, survey questions were discussed, and revisions were suggested.
4. Administered the survey to BSAS student population: Emailed message to students outlining the purpose of the survey, and a request that they click on the hyperlink to complete the survey.
5. Conducted follow-up solicitations encouraging survey completion: Students who had not yet submitted a completed survey were sent two subsequent requests beyond the initial request asking them to complete the survey.
6. Compiled and analyzed data: Archival data for the BSAS student population were analyzed. Qualitative and quantitative survey data were collected, compiled, categorized and analyzed using SPSS.
7. Reported results: Findings were organized and written into results chapter.

Archival Data

Archived institutional data were utilized to establish collective demographic and academic information about the BSAS student population. Institutional data included age, gender, race, academic area of study, community college transfer grade point average, and university grade point average.

There were a total of 407 students within the university's BSAS student population consisting of 289 active students and 118 students who had graduated by fall term 2008. The data revealed that the average age of BSAS students was 36.96 years of age ranging from 20 to 63 years of age resulting in a very large standard deviation of 10.316. As illustrated in Table 1, a significant number of students were over the age of 30

years representing 71% of the total population. Nearly 40% of the students were over 40 years of age, and 14% were over 50 years of age. Most national-level sources for educational research identify college students over 25 years of age as nontraditional with the average community college transfer student ranging between 27 and 29 years of age. The BSAS students in this study are significantly older than the national average for college students in general.

Table 1

Distribution of BSAS Students by Age

Age	Frequency	Percentage
20-24	39	9.6
25-29	79	19.4
30-34	70	17.2
35-39	62	15.2
40-44	61	15.0
45-49	39	9.6
50-54	27	6.6
55-59	24	5.9
60-63	6	1.5
N	407	100

Mean = 36.96, Median = 36.00, Standard Deviation = 10.316

The distribution of females and males within the BSAS student population was 60% female and 40% male (Table 2). This is fairly consistent with current national norms for gender distribution across all higher education students as reported by the National Center for Educational Statistics, Digest of Educational Statistics (NCES-2008) to be 57% female and 43% male.

As Table 2 below illustrates, there were 244 females and 163 males in the total BSAS population of 407 students.

Table 2

Distribution of Students by Gender

Gender	Frequency	Percentage
Female	244	60
Male	163	40
N	407	100

Gender distribution among different BSAS – Areas of Concentration indicate that occupational stereotypes may exist among men and women for various workforce positions perceived to be either male or female oriented. Table 3 shows significant disparity between males and females pursuing areas of study in Early Childhood Development, Environmental Policy, Gerontology, Industrial Operations, Public Health and Information Technology. Extreme disparities are evident by the number and ratio of females overwhelmingly dominating studies in Early Childhood Development (96% female) and males who exclusively (100%) populate Industrial Operations.

Table 3

Gender Distribution among BSAS Areas of Concentrations

	BH	BU	CJ	EC	EP	GR	HG	IO	PL	PU	SG	TC	UR	Total
Female	7	49	35	91	1	9	2	0	27	3	2	12	6	244
Male	3	44	21	4	8	1	5	13	6	1	1	52	4	163
N	10	93	56	95	9	10	7	13	33	4	3	64	10	407

Concentrations: Behavioral Healthcare (BH), General Business (BU), Criminal Justice (CJ), Early Childhood Development (EC), Environmental Policy (EP), Gerontology (GR), Hospitality (HG), Industrial Operations (IO), Public Health (PL), Public Admin (PU), Sign Language (SG), Information Technology (TC) and Urban Policy (UR).

Minority representation among BSAS students is also similar to that of the national percentages reported in the most recent U.S. Department of Education, National Center for Educational Statistics report (NCES-2008). According to the NCES report, approximately 31% of American college students were minorities, which closely mirrors

the BSAS students in this study. Nationally, Black students represent 12.7%, Hispanics 10.8%, Asians/Pacific Islanders 6.5%, and American Indian/Alaskan Native 1%. As illustrated in Table 4 below, BSAS students exceeded the national percentages among Black and Hispanic students while representing slightly less than the national average among other minority categories.

The researcher notes that ten students in the BSAS population did not declare their race/ethnicity within the institutional database. This represents 2.5% of the BSAS student population with an unknown race/ethnicity attribute which could slightly alter the distribution of students represented in Table 4. The researcher presumes, however, that the unknown race/ethnicity of these 10 students would be proportionately distributed and have little impact on the overall racial/ethnic makeup of the student population.

Table 4

Distribution of BSAS Students by Race/Ethnicity

Race/Ethnicity	Frequency	Percent
Am. Indian/Alaskan	3	.7
Asian/Pacific Islander	9	2.2
Black	66	16.2
Hispanic	51	12.5
Unknown	10	2.5
White	268	65.8
N	407	100

A crosstab analysis of race/ethnicity and BSAS-areas of concentration was performed to determine if there were any significant distribution issues among the student population and the various areas of study. Interestingly, Hospitality and Public Administration students were exclusively White and Environmental Policy students were nearly all White. General Business was disproportionately populated by White students,

while Early Childhood Development was disproportionately represented by minority students. In most cases the number of students within each discipline was too small to establish valid correlations, but some of the distribution patterns appear to indicate a level of racial/ethnic preference for certain occupational areas of study as shown in Table 5.

Table 5

Race/Ethnicity Distribution among BSAS Areas of Concentration

	BH	BU	CJ	EC	EP	GR	HG	IO	PL	PU	SG	TC	UR	Total
Asian	0	2	0	3	0	3	0	1	0	0	0	0	0	9
Black	2	10	7	21	1	4	0	1	6	0	0	12	2	66
Hispanic	1	8	9	17	0	0	0	1	4	0	1	9	1	51
Indian	0	0	2	0	0	0	0	0	0	0	0	1	0	3
Unknown	1	4	0	3	0	0	0	0	0	0	0	2	0	10
White	6	69	38	51	8	3	7	10	23	4	2	40	7	268
N	10	93	56	95	9	10	7	13	33	4	3	64	10	407

Concentrations: Behavioral Healthcare (BH), General Business (BU), Criminal Justice (CJ), Early Childhood Development (EC), Environmental Policy (EP), Gerontology (GR), Hospitality (HG), Industrial Operations (IO), Public Health (PL), Public Admin (PU), Sign Language (SG), Information Technology (TC) and Urban Policy (UR).

Archived grade point averages were examined to determine BSAS student performance at the community college. Data revealed the mean transfer grade point average of the AS transfer students was 2.98 with a .5 standard deviation. The minimum grade point average for admission to the BSAS program is 2.0, so no student in the population was below the 2.0 threshold. This limited the range from 2.0 to 4.0 with quartiles established at 2.60, 2.97 and 3.34. Distribution was well balanced across the range. Approximately 18% of the population transferred with less than a 2.5, and 18% with a 3.5 or higher grade point average as shown in Table 6.

Archived grade point averages of students' university-level curriculum were then examined to determine their level of academic performance at the university. Data revealed that the BSAS students' mean grade point average in university courses was 3.12 with a standard deviation of .68 (see Table 6). Dissimilar to the previous transfer analysis, it was possible for students within the BSAS population to have less than a 2.0 grade point average. In this data set, the lowest earned grade point average within the population was .08 which established a wider range from .08 to 4.0. About 6% of the BSAS students fell below the 2.0 threshold for their university courses. However, the broader population performed at a higher academic standard in university curriculum than at the community college as represented by the comparison in Table 6.

Table 6

Comparison – BSAS Students' Transfer and University Grade Point Averages, N=407

Quartiles	Transfer GPA Range	University GPA Range
Lower Limit	2.000	0.080
25 th Percentile	2.600	2.750
50 th Percentile	2.970	3.220
75 th Percentile	3.340	3.660
Upper Limit	4.000	4.000

Transfer GPA: Mean = 2.9808, Median = 2.9700, Standard Deviation = .50247

University GPA: Mean = 3.1231, Median = 3.2200, Standard Deviation = .68364

At the time of this study, 118 students had graduated with the BSAS degree. Examination of BSAS graduates as a separate sub-population shows that they performed well at the university through degree completion at academic achievement levels consistent with the larger BSAS population. The cumulative grade point average of their combined undergraduate coursework at the community college and the university ranged from 2.19 to 4.0 at graduation as illustrated below in Table 7. The mean grade point

average was 3.12 with a standard deviation of .42, which compares favorably to the overall BSAS population (N=407) exceeding their mean grade point average of 2.98.

Table 7

BSAS Graduates – Overall Grade Point Average (n=118)

Quartiles	GPA Range
Lower Limit	2.190
25 th Percentile	2.828
50 th Percentile	3.130
75 th Percentile	3.400
Upper Limit	4.000

Mean = 3.118, Median = 3.130, Standard Deviation = .420

According to the National Center for Educational Statistics, Postsecondary Educational Descriptive Analysis Report (1999), the average number of credit hours earned among bachelor's degree completers by those who transferred with an associate's degree was 148 credits as compared with 132 credits for those who did not first complete an associate's degree. BSAS graduates in this study compared extremely well to these national averages having completed the bachelor's degree with an average of 137 earned credit hours among the BSAS graduate population (Table 8). Over 58% of the BSAS graduates completed the bachelor's with 132 or fewer credits exceeding the national average for traditional students, and over 80% completed the degree with 148 or fewer credits far exceeding the national average for associate degree transfer students. Only 22 students of the 118 BSAS graduates, representing about 19%, earned more than 148 credits to complete their bachelor's degree. The range among all BSAS graduates was 120 to 254, but one student was an extreme outlier having earned 254 credits with the next highest having earned 209 creating a fairly large standard deviation (22.63) as reflected in Table 8 below.

Table 8

BSAS Graduates – Total Credit Hours Earned (n=118)

Quartiles	Credit Hours
Lower Limit	120
25 th Percentile	121
50 th Percentile	128
75 th Percentile	145
Upper Limit	254

Mean = 137, Median = 128, Standard Deviation = 22.63

Survey Data Collection Process

The researcher developed a specialized survey instrument for AS transfer students, the BSAS Transfer Student Survey, that addressed specific questions about the BSAS student and incorporated elements found in the High School Survey of Student Engagement (HSSSE), the Community College Survey of Student Engagement (CCSSE), and the National Survey of Student Engagement (NSSE). No existing survey instrument fully captured the non-traditional, technical/occupational nature of the AS transfer student population, so this survey was created to cross over each educational system affording students the opportunity to self-reflect and report their views about their K-20 educational experiences. To this end, it was important to gather students' perceptions about their journey through high school, community college and the university that could help characterize their development, performance, engagement and academic progression through the K-20 system and their preparedness for admission to the university.

The survey instrument consisted of 100 questions broken down into four functional areas of inquiry: demographics, high school reflections, community college reflections, and university reflections (Appendix C). Each of these four areas contained a combination of Likert scale items and open-ended questions.

A focus group was identified, and a meeting was convened according to the protocol outlined in Chapter Three. The focus group consisted of 8 students who completed the survey. Five students executed the survey via paper format and the other three via electronic format. All students in the focus group expressed that the survey was clear, easy to complete, and they felt it was appropriate for gathering information about them pertinent to the intent of the study. Beyond identifying a few grammatical and typographical errors, no suggestions were made by the focus group for revising the survey.

Focus group participants were selected using purposeful random sampling as outlined in Chapter Three to ensure broad representation of different AS majors, student status, gender and age. Due to the use of purposeful random selection, results from interviews and open discussions with the focus group participants about the BSAS program were not applied to the analyses of the general BSAS population, and their survey results were not incorporated into the final survey results for the BSAS population. However, the focus group participants were included in the overall BSAS population for the earlier analyses of archival data.

Upon completion of the focus group and final editing of survey questions were executed. The BSAS Transfer Student Survey was then distributed to BSAS students via email message with an embedded internet hyperlink to the survey. At the time of survey distribution, there were 289 total active BSAS students and 118 BSAS graduates for a total population of 407. A total of 179 students began the online survey, but not all fully completed and submitted the survey. The final count of students completing the survey consisted of 137 active BSAS students and 32 BSAS graduates.

There were 10 students among the 179 who began the survey but did not complete it, accounting for variances in the number of responses for some questions. A few of the respondents accessed the survey, filled in only a few responses, or did not click on the submit button at the end of the survey to finalize their submission. Additionally, not all students who completed the survey answered all questions as students were instructed to skip questions that did not apply to them, or bypass questions they felt uncomfortable answering.

The subsequent combined submission rate among active and graduated students from the entire BSAS population was 41.5%. Active students responded at the rate of 47% (137 out of 289), and graduates at the rate of 27% (32 out of 118). The low rate of response by BSAS graduates may be attributed to their departure and disconnection from the university, disinterest in the survey, inaccurate email address, lack of available time, or other factors. The researcher did receive several responses via email from solicited BSAS students stating that they simply did not have the spare 20-30 minutes of time it would take to complete survey, and that they would prefer to not be solicited again.

The BSAS Transfer Student Survey (Appendix C) was separated into four sections: 1) general demographics and students' academic background information, 2) reflections about their high school experiences, 3) reflections about their community college experiences, and 4) reflections about experiences at the university. The survey questions were designed to address certain attributes and characteristics of the BSAS students that were not collected by the institution and thus unavailable via institutional archival data. This additional information was deemed necessary by the researcher to develop a more thorough description of the BSAS student population.

Survey Results – Demographics

The following information was compiled from student responses to the BSAS Transfer Student Survey, questions 1 through 21 (Appendix C), to determine specific demographic and academic background characteristics to provide a more comprehensive description of the BSAS students. Information gathered from the survey revealed the following BSAS student demographic and academic characteristics:

Marital Status: 59% were married (n=170).

Children: 67% had children – 42% with two or more children (n=170).

Income: The average income of the sample was \$61,709, median income was \$55,000, and the range of income reported spanned from \$0 to \$250,000 (n=150).

First in Family: 41% were first in family (parents/siblings) to attend college (n=169).

Father's Education: 63% report father's highest degree attainment was H.S. diploma or less (n=167).

Mother's Education: 71% report mother's highest degree attainment was H.S. diploma or less (n=167).

Spouse's Education: 44% report spouse's highest degree attainment was H.S. diploma or less (n=105).

Father's Occupational Area (n=159):

1. Construction/Labor = 34%
2. Business/Sales = 26%
3. Retired/Unknown = 11%
4. Trades/Engineering – 9%
5. Military/Public Service = 8%
6. Education/Health = 7%
7. Law/Law Enforcement = 5%

Mother's Occupational Area (n=164):

1. Business/Sales = 26%
2. Housewife/Homemaker = 23%
3. Laborer/Trades = 20%
4. Education/Teacher = 10%
5. Nursing = 10%
6. Health/Allied Health = 8%
7. Retired/Unknown/Other = 3%

Employment Status: 91% of BSAS students indicated they were employed (n=170).

Employment in AS Field of Study: 69% were working in jobs/careers related to their AS degree (n=158).

Hours Worked per Week: Students worked an average of 39 hours per week. Less than 10% worked 25 or fewer hours per week, and about 10% worked 48 or more hours (n=151).

Commute Time to Work: The average commute for workers was about 30 minutes each way. Only about 10% reported a commute of 60 minutes or longer (n=152).

Past Attitude about Higher Education: 46% reported their past attitude toward higher education was positive; 22% felt it was more or less just a requirement for future success; 15% were previously indifferent or thought that higher education was unimportant; 13% felt that it would be too difficult to obtain a college degree; and about 3% cited that it would be too costly (n=163).

Current Attitude about Higher Education: 72% reported their current attitude toward higher education was positive; 17% still felt it was just a requirement for work; about 5% felt it was too difficult to attain; 4% felt indifference; and 2% felt it was too costly (n=163).

Math Skills – Personal Assessment: 72% agreed or strongly agreed that they felt

capable in college-level math skills. 11% disagreed and 2% strongly disagreed that they were capable in college-level math (n=168).

English Skills – Personal Assessment: 89% agreed or strongly agreed that they felt capable in college-level English skills. Only 4% reported they disagreed or strongly disagreed that they were capable in college-level English (n=170).

Communication Skills – Personal Assessment: 93% of respondents indicated that they were confident in their college-level communication skills (n=165).

Reading Skills – Personal Assessment: 93% of respondents indicated that they were confident in their college-level reading skills (n=168).

Second Language/Foreign Language: 30% of respondents indicated that they were competent and capable in a second language (n=170).

Survey Results – High School Reflections

Students were asked to reflect upon their high school experiences, performance, engagement and development in the high school setting to ascertain their perceptions and to define their student characteristics as the baseline for comparing their progress across the educational system.

The following information was compiled from student responses to the BSAS Transfer Student Survey, questions 22 through 39 (Appendix C), to determine specific demographic and academic background characteristics from their high school experience. The sample of BSAS students surveyed reported that their mean high school grade point average was 2.91. From the sample of students who responded (n=159) to the question about their high school grade point average, 13 students did not provide a grade. Of these, 7 stated they could not remember their grade, and 6 stated that they had earned a GED

with no grade point average. The remaining students who did report a grade (n=146) earned an average among them of a 2.91 as reflected in Table 9.

Table 9

BSAS Students' High School Grade Point Average (n=146)

Quartiles	GPA
Lower Limit	1.50
25 th Percentile	2.50
50 th Percentile	3.00
75 th Percentile	3.25
Upper Limit	4.00

Mean = 2.91, Median = 3.0, Standard Deviation = .58

Students were then asked to self-assess their overall performance in the high school setting. The predominate narrative responses ranged from “above average” to “very poor” which were suitable for a simple four-tier coding revealing that 18.3% felt they performed above average, 48.2% perceived they were average, 26.2% assessed their performance as poor, and 7.3% declared they performed very poorly (n=164).

When asked to recall their career intentions while in high school, the sample of students responded with a wide array of career options ranging alphabetically from accountant to writer. The largest percentage (18.3%) stated that they “didn’t know”, or “had no idea” what occupation or career path they would take while still in high school. The next largest percentages came from those who identified “education/teaching” (10.4%) as their chosen career goal followed by “doctor” (6.1%), “computers” (5.5%), “military” (5.5%) and “nursing (5.5%). A complete list of occupational choices and their distribution among respondents are provided in Appendix H.

The surveyed BSAS students responding to the question of whether they were pleased with the high school they attended indicated that a slight majority (59%) were, in fact, satisfied with their high school as depicted in Table 10.

Table 10

Students Pleased with High School They Attended (n=168)

Pleased	Frequency	Percent	Cumulative %
strongly agree	28	16.7	16.7
agree	71	42.3	59.0
neither agree nor disagree	31	18.5	77.5
disagree	27	16.0	93.5
strongly disagree	11	6.5	100

Responses by sampled students indicating whether they thought their high school curriculum was relevant to their personal goals were fairly split among those who agreed or strongly agreed (36.5%) and those who neither agreed nor disagreed with the statement (35.3%). Only about 28% disagreed or strongly disagreed with the statement, “My high school curriculum was relevant to my personal goals” as reflected in Table 11 below.

Table 11

High School Curriculum Relevancy to Personal Goals (n=167)

Relevant	Frequency	Percent	Cumulative %
strongly agree	13	7.8	7.8
agree	48	28.7	36.5
neither agree nor disagree	59	35.3	71.8
disagree	36	21.6	93.4
strongly disagree	11	6.6	100

Reflecting upon their relationships with high school faculty, BSAS students in the sample reported that they recalled their interactions as favorable. About 61% felt positive about their relationships with faculty. Only about 20% reported unfavorable relationships, while 31% were neutral as shown in Table 12.

Table 12

Relationships with High School Faculty (n=167)

Good Relations	Frequency	Percent	Cumulative %
strongly agree	29	17.4	17.4
agree	73	43.7	61.1
neither agree nor disagree	31	18.6	79.7
disagree	25	15.0	94.7
strongly disagree	9	5.3	100

As a determination of students' compatibility with their student peers, they were asked to reflect about their relationships with high their high school peers. Students in the sample responded that their peer relationships were good, and less than 10% disagreed or strongly disagreed with the statement, "I had good relationships with my high school peers" as indicated in Table 13.

Table 13

Relationships with High School Peers (n=164)

Good Relations	Frequency	Percent	Cumulative %
strongly agree	39	23.8	23.8
agree	80	48.8	72.6
neither agree nor disagree	29	17.7	90.3
disagree	10	6.1	96.4
strongly disagree	6	3.6	100

As Table 14 shows, about half of the student surveyed (52%) indicated that they regularly engaged in extracurricular activities while in high school. One third disagreed or strongly disagreed with the statement, "I regularly engaged in high school extracurricular activities", and 15% were neutral on the matter. As George Kuh, et al (1994) note, levels of student engagement beyond the classroom can influence other aspects of students' academic performance, personal growth and satisfaction.

Table 14

Engagement in High School Extracurricular Activities (n=168)

Engaged	Frequency	Percent	Cumulative %
strongly agree	33	19.6	19.6
agree	54	32.1	51.7
neither agree nor disagree	25	15.0	66.7
disagree	34	20.2	86.9
strongly disagree	22	13.1	100

Students were asked, “What contributed to your academic performance in high school?” This was an open-ended question allowing for a narrative response. Responses were categorized into three types of responses: positive, negative and neutral influences. A total of 148 students responded with 53% identifying positive influences on their high school performance, 38% citing negative influences, and 9% were neutral responses. Examples of responses indicating the people and things students felt contributed to their performance in a positive way were:

- “I was always a good reader and a good student. I liked a few of my teachers and did well in their classes. They made teaching fun”
- “Family support”
- “My dad always telling me to do my homework and study”
- “Part of doing well in class was the determination to get my diploma then apply to my community college”
- “Teachers who genuinely cared about us!”
- “Sports, friends and family”

Examples of responses indicating people and things students felt contributed to their performance in a negative way were:

- “I didn't think it was important and I was not encouraged or pressured to perform by my parents. I thought they did not consider me college material and they did not expect much from me”

- “I hated school. I didn't have the foundation I needed to keep up with what was being taught in math & English as I progressed into middle & Jr. high school. My fault I guess because I didn't pay attention in class... more of the class clown”

- “Too much focus on athletics and girls”

- “My mother nor my father graduated high school, so they could have cared less if I graduated or not”.

- “Social life being more important than getting good grades”

Examples of responses indicating the people and things students felt contributed to their performance in a neutral way were:

- “None, I quit at age 14, went to work, got my GED and went to college at night”

- “Prefer not to tell”

- “none”

- “I wanted to take auto shop but [school] didn't offer it so I went to [school] Tech but it didn't turn out to be what I wanted to do so I took the GED and started at the community college the following semester”

Respondents were asked if they were satisfied with their academic performance in high school. As illustrated in Table 15, about 55% of students agreed or strongly agreed that they were satisfied with their performance, while only 25% disagreed or strongly disagreed with the statement, “I was satisfied with my academic performance in high school”. Approximately 20% neither agreed nor disagreed.

Table 15

Satisfaction with High School Performance (n=168)			
Satisfied	Frequency	Percent	Cumulative %
strongly agree	26	15.5	15.5
agree	66	39.3	54.8
neither agree nor disagree	34	20.2	75.0
disagree	31	18.5	93.5
strongly disagree	11	6.5	100

Respondents were asked if they gave a significant effort in high school. The survey statement was “I put forth a significant effort in high school”. A fairly large portion of the respondents disagreed or strongly disagreed with the statement at the rate of 47.3%. Only 35.4% agreed with the statement, and 17.3 were neutral (Table 16).

Table 16

Significant Effort in High School (n=167)			
Gave Effort	Frequency	Percent	Cumulative %
strongly agree	19	11.4	11.4
agree	40	24.0	35.4
neither agree nor disagree	29	17.3	52.7
disagree	48	28.7	81.4
strongly disagree	31	18.6	100

Almost 81% of students surveyed stated that they did not participate in peer study groups while in high school.

Approximately 45% of students surveyed reported that they did not believe their interaction with academic advising and counseling at the high school was adequate. As shown in Table 17, 31% felt that it was adequate and 23% neither agreed nor disagreed with the statement “My interaction with high school counselors/academic advisors was adequate.”

Table 17

Interaction with High School Counselors/Advisors (n=165)			
Adequate Interaction	Frequency	Percent	Cumulative %
strongly agree	7	4.2	4.2
agree	45	27.3	31.5
neither agree nor disagree	38	23.1	54.6
disagree	46	27.9	82.5
strongly disagree	29	17.5	100

According to Chickering (1993), the development of mature interpersonal relationships can be observed through students' interactions with faculty beyond classroom activities and assignments. Only about 26% of those surveyed recalled having routine interaction with their faculty beyond the classroom (Table 18).

Table 18

Interaction with High School Faculty (n=166)			
Routinely Interacted	Frequency	Percent	Cumulative %
strongly agree	9	5.4	5.4
agree	34	20.5	25.9
neither agree nor disagree	29	17.4	43.3
disagree	66	39.8	83.1
strongly disagree	28	16.9	100

When asked to recall how well they performed completing high school homework assignments, 58.2% agreed or strongly agreed that they conscientiously completed their reading and homework assignments. 31.5% disagreed or strongly disagreed, and 10.3% neither agreed nor disagreed with the statement "I conscientiously completed high school reading and homework assignments" (Table 19).

Table 19

Completion of High School Homework (n=165)			
Completed	Frequency	Percent	Cumulative %
strongly agree	28	17.0	17.0
agree	68	41.2	58.2
neither agree nor disagree	17	10.3	68.5
disagree	41	24.8	93.3
strongly disagree	11	6.71	100

Over 80% of the BSAS students responding to the survey felt they were capable of performing in the academic setting of high school. Only about 5% disagreed or strongly disagreed that they were capable in the high school setting, and about 14% neither agreed nor disagreed with the statement, “I felt capable of performing in the academic setting of high school. Distributions and precise percentages are illustrated in Table 20 below.

Table 20

Capable of Performing in High School Setting (n=167)			
Felt Capable	Frequency	Percent	Cumulative %
strongly agree	52	31.1	31.1
agree	82	49.1	80.2
neither agree nor disagree	24	14.4	94.6
disagree	5	3.0	97.6
strongly disagree	4	2.4	100

To address an issue of information literacy in the community college setting, students were asked if they felt competent using library resources. Only 67% of those surveyed felt that they were competent in using their high school library resources for research as reflected in Table 21 below.

Table 21

Capable of Using High School Library Resources (n=168)

Competent	Frequency	Percent	Cumulative %
strongly agree	37	22.0	22.0
agree	76	45.2	67.2
neither agree nor disagree	28	16.7	83.9
disagree	18	10.7	94.6
strongly disagree	9	5.4	100

Survey Results – Community College Reflections

Upon completion of their high school reflection, students were asked to reflect upon their community college experiences, performance, engagement and their development with the community college setting to determine their perceptions and to define their student characteristics at this level.

The following information was compiled from student responses to the BSAS Transfer Student Survey, questions 40 through 66 (Appendix C), to determine specific demographic and academic background characteristics drawn from their community college experience.

The sample of BSAS students surveyed who self-reported their community college grade (n=157) establish a mean community college grade point average was 3.24. From the sample of students who responded to the question about their high school grade point average (n=162) 5 students did not provide their grade. Of these, 2 students stated they could not remember their grade, and the remaining 3 did not offer any response. Consequently, these 5 students were not incorporated into the data. Table 22 below shows the distribution, range and quartiles of respondents' self-reported grade point average at the community college.

Table 22

BSAS Students' Community College Grade Point Average (n=157)

Quartiles	GPA
Lower Limit	2.00
25 th Percentile	2.95
50 th Percentile	3.30
75 th Percentile	3.60
Upper Limit	4.00

Mean = 3.24, Median = 3.3, Standard Deviation = .46

Students were asked to reflect upon their community college experience and assess their college environment. This was presented as an open-ended question intended to obtain students' general perceptions, which generated a broad spectrum of answers. Students' responses, however, were fairly easily categorized and generally ranged from excellent to bad. Nearly 49% reported that their community college was a good environment, and almost 17% assessed it as excellent. Only about 7% felt their community college was a bad environment (Table 23).

Table 23

BSAS Students' Self-Assessment of CC Environment (n=156)

Rating	Frequency	Percent	Cumulative %
excellent	26	16.7	16.7
good	76	48.7	65.4
fair	21	13.5	78.9
bad	11	7.1	86.0
neutral	22	14.0	100

Nearly 17% rated their community college environment as excellent. Responses from students rating their community college in terms of excellence used common terms such as great, wonderful, awesome and exceptional. Specific comments depicting this level of assessment were:

- “It was exceptional. With small classes we were able to do a lot of hands on work.”

- “Excellent environment with great potential for learning. [community college] is a learning based institution.”

- “I loved it. I think all students should attend community college before attending a 4-year university.”

- “I loved [community college]. The teachers cared for their students unlike [university].”

Analyzing student responses assessing their community college environment, several recurring terms such as good, fine or above average were used in their narrative remarks. In such instances, or when the overall narrative statement indicated a positive assessment of their community college environment, the researcher categorized those responses as “good”. Some examples were:

- “It was good. I met a lot of new people and had some pretty good teachers.”

- “I enjoyed the small class size and intimate environment.”

- “[community college] performs a valuable service as a bridge for students trying to get back into academia after years away.”

- “Good place to start for those not knowing which career they would like to choose.”

Students who assessed their community college environment in negative terms or recanted a negative experience were in the minority or respondents representing only about 7% of the survey responses. Examples of responses that the researcher categorized as a “bad” student self-assessment of their community college environment were:

- “A joke, I hated [community college].”

- “Poor – they do not care about the student.”

- “I attended the [community college] campus and it was not the safest or cleanest environment out there.’

- “I went to [community college] and I think they are a little bit too relaxed with their requirements. They have a horrible advising department.”

To gain insight into why students opted to attend a community college, students were asked to respond to the open-ended question, “Why did you choose to attend a community college?” A prevalent view about students who pursue technical or occupational degrees is that they choose such academic paths because they knew they were not admissible to traditional collegiate programs, and not academically prepared for mainstream college-level coursework. The survey revealed that college or university access was a factor, but not the dominant theme within students’ reasoning for attending a community college. Affordability and the lesser cost of attending a community college was the most cited reason followed by specific references to the primary purpose their attendance attributed to career preparation as indicated in Table 24.

Table 24

Why Attend a Community College (n=160)

Reason	Frequency	Percent	Cumulative %
access	22	13.8	13.8
career	23	14.4	28.2
degree	21	13.1	41.3
location	20	12.5	53.8
cost	46	28.8	82.6
program	16	10.0	92.6
size	7	4.3	96.9
unknown	5	3.1	100

Access, degree completion, and proximity were fairly equitably distributed among student responses to the survey question. Specific program offering accounted for only 10% of student reasoning for attending a community college, and institutional size was the primary factor for only a very few.

Item #43 on the survey was used to determine students' average progression toward their AS degree at the community college by examining the number of credit hours they took each semester. The question, simply asked "How many credits hours per semester did you normally take in community college?" Based upon previous self-reported data of near full-time employment, the researcher's presumption was that the majority of these students would have been part-time students at the community college. However, respondents (n=161) indicated that they enrolled in an average of 10.53 credits per semester, and the median enrollment was 12 credits per semester. Enrollment distribution shown in Table 25 illustrates that over half of those responding to the survey stated that they normally took 12 or more credit hours per semester.

Table 25

Distribution – Enrollment Hours/Semester at Community College (n=161)

Hrs/Semester	Frequency	Percent	Cumulative %
3	7	4.3	4.3
6	33	20.5	24.8
8	1	.6	25.5
9	27	16.8	42.2
10	1	.6	42.9
12	63	39.1	82.0
14	5	3.1	85.1
15	15	9.3	94.4
18	8	5.0	99.4
21	1	.6	100

Mean=10.53, Median=12.0, Standard Deviation=3.7

In response to the survey question asking at what age students began pursuing their associate's degree, the average self-reported age was 24.46 years with 25% reporting that they were 30 years or older before entering the community college to begin their degree as shown in Table 26.

Table 26

Age Began Pursuing Associate's Degree (n=165)

Quartiles	Age
Lower Limit	16
25 th Percentile	18
50 th Percentile	20
75 th Percentile	30
Upper Limit	55

Mean = 24.46, Median = 20, Standard Deviation = 8.5

Students were then asked at what age they completed their associate's degree. Survey results, as shown in Table 27, indicate that the median age was 26 years old for those completing their associate's degree which represents a 6 year difference between median age of those beginning and completing the associate's degree.

Table 27

Age Completed Associate's Degree (n=163)

Quartiles	Age
Lower Limit	18
25 th Percentile	21
50 th Percentile	26
75 th Percentile	35
Upper Limit	58

Mean = 29.27, Median = 26, Standard Deviation = 9.22

To better understand this population and determine how they populate the various technical and occupational career fields, students were asked to identify the area of study they intended to pursue at the community college. Responses were categorized into

general fields of study and career paths as indicated in Table 28. The career themes listed below in Table 28 encompass a wider variety of occupations reported by the survey respondents and these are inclusive in some of the categories in the below table. For instance, those who declared an occupation under the field of computers included computer programming, computer technology, information technology, computer graphics, and network technician. Similarly, students who indicated a variety of occupations and related fields of study under the primary categorization of business included management, marketing, sales, purchasing and office assistant. And likewise, the category of health care incorporated occupations such as respiratory therapy, occupational therapy, optician, radiologic technician, pre-med, and prosthetics.

The three areas of study highlighted above as examples (computers, business and health care) ranked among the most popular choices by survey respondents followed closely by students' other choices to pursue education and child care development occupations. Interestingly, this student population was quite focused as a population about their intended occupational path at the community college as less than 10% of those surveyed stated that their intended occupational pursuit was unknown.

The researcher considered this question to be an important discriminator for determining why a student may have opted to attend a community college. Many of these students were seeking education for a specific career path, which may not have been available through the university. Was the community college the only educational source for those with specific career goals requiring a technically or occupationally focused AS degree?

Table 28

Intended Occupational Area of Study at Community College (n=159)

Occupation	Frequency	Percent	Cumulative %
accounting	5	3.1	3.1
business	17	10.7	13.8
child care	14	8.8	22.6
computers	20	12.6	35.2
criminal justice	11	6.9	42.1
education	16	10.1	52.2
engineering	3	1.9	54.1
environment	4	2.5	56.6
fire science	3	1.9	58.5
health care	20	12.6	71.1
hospitality	5	3.1	74.2
human services	9	5.7	79.9
law/paralegal	7	4.4	84.3
security/defense	3	1.9	86.2
nursing	3	1.9	88.1
trades	5	3.1	91.2
unknown	14	8.8	100

Several Likert scale questions were asked of the BSAS student population, which were a repeated series of questions from previous high school reflections. These repeated questions were intended to be used in later comparative analyses across students' experiences across the K-20 system. Tables illustrating the following data will be presented late in this chapter for comparisons across their K-20 experiences.

Over 84% of those surveyed agreed or strongly agreed with the statement "I was generally pleased with the community college I attended." Only about 7% disagreed or strongly disagreed with the statement, and a little over 8% were neutral (n=163).

Approximately 82% agreed or strongly agreed that their community college curriculum was relevant to their personal goals. Less than 5% felt that the curriculum was

irrelevant, and about 13% neither agreed nor disagreed with the statement “My community college curriculum was relevant to my personal goals.”

About 70% of respondents agreed or strongly agreed that they had good relationships with their community college faculty with 39.4% agreeing and 30.3% strongly agreeing with the statement “I had a good relationship with my community college faculty.” Only about 5% disagreed or strongly disagreed with the statement, and about 25% were neutral (n=163). Students were asked to reflect upon their experiences with community college peers to determine if they had good relationships with their student peers. About 70% reported that they had good relationships with their peers and less than 2% reported that they did not. Just over 28% provided the neutral response indicating they neither agreed nor disagreed that they had good relationships with their peers (n=166).

To determine a measure of student engagement, students were asked to reflect about their activities while at the community college and respond to the statement, “I regularly engaged in community college institutional/extracurricular activities.” Nearly 57% reported that they did not regularly engage in such activities with 18.6% strongly disagreeing with the statement. Only about 20% of those responding indicated that they engaged in institutional or extracurricular activities, and only about 8% were in strong agreement with the statement (n=167).

What influenced students performance at the community college? Students were asked, “What factors contributed to your performance in community college” allowing for an open-ended response. As expected, there were a plethora of answers covering a wide range of contributing factors toward their performance in the community college

setting. As illustrated in Table 29, responses were categorized into 12 different categories: attitude, commitment, faculty, family, finances, goals, interest, job, maturity, peers, school, and unknown for those who did not identify a factor.

Table 29

Contributing Factors for Community College Performance (n=147)

Factor	Frequency	Percent	Cumulative %
attitude	34	23.1	23.1
commitment	20	13.6	36.7
faculty	5	3.4	40.1
family	19	12.9	53.1
finances	4	2.7	55.8
goals	11	7.5	63.3
interest	6	4.1	67.3
job	17	11.6	78.9
maturity	17	11.6	90.5
peers	3	2.0	92.5
school	5	3.4	95.9
unknown	6	4.1	100

A change in attitude was the most commonly indentified factor that students related to their performance at the community college. Examples of student responses indicating that a positive attitude influenced their performance were:

- "I enjoyed the atmosphere and curriculum"

- "I realized that I was capable of learning and making good grades. After the first semester of all A's, I realized my potential"

- "I wanted to excel. I wanted to be accountable to myself and prove to myself that I could achieve a college degree"

Examples of student responses indicating that a negative attitude influenced their performance were:

- “Again focus was a problem. I was in a serious relationship that took up a lot of my time and focus”

- “Anxiety of money and lack of emotional support”

Commitment, family, job and maturity were other fairly evenly distributed factors that students identified as contributing factors to their performance. Some interesting responses where students attributed family support as a contributing factor were:

- “Being a single parent and the economic hardship made completing my degree difficult”

- “A supportive husband”

- “Encouragement from my family

- “I worked full-time while raising two kids alone”

- “Knowing that this was probably my final attempt at college with the support of my parents”

Students were then asked to compare their study habits between high school and the community college to determine if students perceived that their habits had improved or declined through the transition. The Likert scaled question was, “My study habits were better in the community college than my study habits in high school.” Table 30 shows that students overwhelmingly believed that their study habits had improved. These results will be used later in this chapter for analyzing students’ perceptions about their progression or improvement of their study habits across the K-20 system using a comparative analysis.

Table 30

Study Habits – Improvement High School to Community College (n=165)

Improved	Frequency	Percent	Cumulative %
strongly agree	69	41.8	41.8
agree	62	37.6	79.4
neither agree nor disagree	24	14.5	93.9
disagree	7	4.2	98.2
strongly disagree	3	1.8	100

According to the National Center for Educational Statistics (2008), about 42% of students entering public two-year institutions enroll in at least one remedial English, reading, writing or math course. Of the BSAS students responding to the survey, 42% acknowledged that they participated in remedial Math courses, which is consistent with the national average among all community college students. Only 23% reported that they had taken remedial English courses at the community college (n=165).

When asked what motivated students to complete their AS degree, the completion of a bachelor’s degree was not a dominate factor. Only about 11% indicated that eventual transfer to a university or the pursuit of a bachelor’s degree was their primary motive. This may be due to that fact that the AS degree has not historically been the articulated transfer degree, or that the relatively new AS to BS transfer option had not yet become well known to AS students at the community college.

Understandably, the most cited motivations for completing the AS degree were connected to career advancement (25%) and increased earning power (22%). However, nearly 25% stated that completing the AS degree was simply motivated by a sense of personal accomplishment (Table 31). Examples of the more frequent themes were:

- “My goal to advance in the company I worked for”
- “Career advancement”

- “I did not want to be stuck in a low paying job”
- “I saw that I would be stuck working for \$8.00 an hour if I did not start focusing in school and really cracking down on the homework”
- “To be able to earn a comfortable living through more education, and to obtain a college degree”
- “Wanting a sense of completion for something I started 25 years ago”
- “Wanted to do it for myself”

Table 31

Motivation to Complete AS Degree (n=158)

Motivation	Frequency	Percent	Cumulative %
accomplishment	39	24.7	24.7
bachelor	17	10.8	35.4
career	40	25.3	60.8
family	24	15.2	75.9
income	35	22.2	98.1
unknown	3	1.9	100

Recognizing that good mentors and supporters are a potent force for helping students begin, continue and complete a degree, survey respondents were asked, “Who were your mentors/supporters for completing your associate’s degree?” Only three major thematic populations emerged from the responses: family/friends, professors/counselors, and nobody. Not surprisingly, the majority (58%) identified family and friends as their primary mentors and supporters. Professors and counselors accounted for 22%. And unfortunately, 20% could identify no person as their mentor or supporter during the completion of their associate’s degree (n=159)

BSAS students' recollection and perception of their academic performance at the community college revealed that 87% believed they performed academically well, and 84% indicated that they were satisfied with their academic performance at the community college (n=166).

Over 83% of survey respondents agreed or strongly agreed that they put forth significant effort while at the community college, 14% were neutral, and only 3% disagreed with none strongly disagreeing (n=165).

More than half (52%) of respondents reported that they participated in peer study groups at the community college (n=164). This represents nearly a 30% increase over respondents from their high school reflections in which 81% reported they did not participate in peer study groups.

Throughout this researcher's routine advising, counseling and discussions with transfer students over a fifteen year period, a common complaint by community college transfer students was that they did not receive adequate advising, or that they did not even know their community college advisor. In the BSAS Transfer Student Survey, students were asked to agree or disagree with the statement: "My interaction with community college academic advisors was adequate" in order to determine the BSAS students' perceptions about their interaction with academic advisors at the community college. Contrary to the expected results almost 56% felt that they did have adequate interaction with their community college advisors, and only about 15% felt they did not as shown in Table 32 below.

Table 32

Interaction with Community College Advisors (n=167)

Adequate Advising	Frequency	Percent	Cumulative %
strongly agree	18	10.8	10.8
agree	75	44.9	55.7
neither agree nor disagree	51	30.6	86.3
disagree	16	9.6	95.9
strongly disagree	7	4.1	100

When survey respondents were asked about their interaction with faculty, nearly 41% indicated that they did not interact with faculty beyond routine classroom requirements, 36% reported that they did, and 23% were neutral (n=164).

Students overwhelmingly agreed that they conscientiously completed community college reading and homework assignments at the rate of over 90% with 35% strongly agreeing (n=164).

Students also overwhelmingly reported that they felt capable of performing in the academic setting of the community college. About 91% agreed that they felt capable. Only about 2% denied feeling capable, with 7% giving a neutral response (n=165).

The final survey item in this section focusing on students' reflections about their community college experiences sought to determine their level of library usage and information literacy. Students were asked to respond to the statement, "I was competent in using library resources for research at the community college." Nearly 80% agreed or strongly agreed (52.4% and 27.7% respectively) with the statement about library competency. About 7% disagreed, and 13% neither agreed nor disagreed (n=166).

Survey Results – University Reflections

The following survey results were derived from questions 67 through 98 of the BSAS Transfer Student Survey (Appendix C). These questions were used to determine students' characteristics and perceptions about their experience at the university.

Students reported that their average age at the time they transferred to the university was about 34 years of age, and the upper 25% ranged from 40 to 58 years of age as shown in Table 33 below.

Table 33

Age Transferred to University (n=158)

<u>Quartiles</u>	<u>GPA</u>
Lower Limit	18.00
25 th Percentile	26.00
50 th Percentile	34.00
75 th Percentile	40.00
Upper Limit	58.00

Mean=34.08, Median = 34.00, Standard Deviation = 9.46

As indicated earlier, many of the BSAS students (91%) indicated they were employed, and nearly 70% were working full-time in career fields related to their AS degree (p. 80). Students were asked to respond to the question about what occupations they intended to pursue while at the university to determine if their occupational goals were consistent with their community college occupational goals. The largest number of students identified their career intentions in the areas of management (16%) followed by early childhood development (13%), information technology (12%), and education (9%). Approximately 11% indicated that they were still unsure what occupation they would pursue. Other distributions of occupational intentions were quite disparate. Student responses are contained in Table 34 below.

Table 34

BSAS Students' Occupational Goals (n=150)

Occupation	Frequency	Percent	Cumulative %
business	6	4.0	4.0
counseling	7	4.7	8.7
early child dvlp	19	12.7	21.3
education	14	9.3	30.7
environmental policy	5	3.3	34.0
financial planner	2	1.3	35.3
fireman	2	1.3	36.7
interpreter	2	1.3	38.0
IT	18	12.0	50.0
law enforcement	11	7.3	57.3
lawyer	5	3.3	60.7
management	24	16.0	76.7
military	2	1.3	78.0
nursing	1	.7	78.7
occupational therapy	2	1.3	80.0
MA/PHD	3	2.0	82.0
prosthetics	1	.7	82.7
public health	3	2.0	84.7
radiologist	3	2.0	86.7
respiratory	2	1.3	88.0
self employed	1	.7	88.7
unknown	16	10.7	99.3
urban planning	1	.7	100

As this population of predominately working-students progress through their baccalaureate education, their ability to access curriculum becomes dependent upon course availability. Students were asked when they normally attend classes to illustrate when/how they access the BSAS curriculum. The overwhelming majority of students reported that they take courses through a combination of times and means across daytime, evening, weekends, online and correspondence (n=160). Approximately 25% (40 students) reported taking courses exclusively online, About 19% (31 students) reported that they exclusively took classes in the evening. Only 4 students reported

taking classes exclusively during a daytime schedule. Those reporting taking classes using a combination of class offerings in the evening and online format represented 44% of the surveyed population. There were 25 students reporting that they took classes in a combination of evening, daytime and online offerings. There were 15 students who reported they accessed courses via weekend class offerings through a special weekend program in Early Childhood Development which has discontinued. Only 5 students reported that they have utilized correspondence as a means of satisfying course requirements.

Survey respondents were asked to report their commute time to attend on-campus classes. As a significant number of students (25%) take classes in an exclusively online format, it was expected that they would report no time for a commute, which was verified by the results for this question. There was one student who reported a 2 hour commute and one other student who reported a 4 hour commute. These two students were included in the data, but they should be considered outliers as few students reported a commute longer than 60 minutes. The average commute time for all respondents was about 29 minutes with a median reported commute of 20 minutes as shown in Table 35.

Table 35

Commute to University Campus (n=155)	
Quartiles	Minutes
Lower Limit	0.00
25 th Percentile	15.00
50 th Percentile	20.00
75 th Percentile	40.00
Upper Limit	240.00
Mean=28.55, Median = 20.00, Standard Deviation = 27.83	

Approximately 38% of survey respondents acknowledged that they have attended

more than one university campus in order to access required coursework (n=157).

The BSAS survey respondents reported that they are taking an average of 9 credit hours per semester. As illustrated in Table 36 below, there was an unusually equitable distribution of students classified as quarter-time, half-time and full-time.

Table 36

Credit Hours/Semester at University (n=158)

Quartiles	Credit Hours
Lower Limit	0.00
25 th Percentile	6.00
50 th Percentile	9.00
75 th Percentile	12.00
Upper Limit	18.00

Mean=9.03, Median = 9.00, Standard Deviation = 3.74

Survey question #73 asked how many credits students had completed toward the completion of their BSAS degree. Upon review of the data, the researcher determined that the question and the responses were irrelevant to any meaningful analyses toward the determination of student characteristics. The respondents included beginners through graduates, but the total credit hours reported were not attributable to a student's level or graduation status.

Students were asked to respond to the question, "Approximately, how many hours per week do you spend on coursework or class assignments outside of class?" Respondents indicated that they spend an average of 13 hours per week on assignments with responses ranging from 2 hours to 50 hours. The upper 25% of those surveyed reported spending 20 or more hours per week on assignments as shown in Table 37. The researcher notes that there was a reasonable alignment of time spent on assignments

(Table 37) and the number of credit hours that students reported taking per semester as shown in the previous table, Table 36.

Table 37

Hours/Week Spent on University Assignments (n=157)

Quartiles	Credit Hours
Lower Limit	2.00
25 th Percentile	6.00
50 th Percentile	10.00
75 th Percentile	20.00
Upper Limit	50.00

Mean=13.12, Median = 10.00, Standard Deviation = 9.78

Survey respondents were asked if university courses were more difficult than courses taken at the community college. Over 61% agreed or strongly agreed that university courses were more difficult. About 27% of respondents were neutral, and 12% disagreed or strongly disagreed.

Question #76 asked students if they had encountered any problems while attending the university. The majority (65%) indicated that they had not encountered any problems. About 7% stated problems with academic advisors, and 6% complained about their professors and parking. Less than 3% identified problems with class offerings, registration and institutional bureaucracy. Other complaints or problems identified were only cited by a single respondent and did not warrant further categorization (n=157).

Students were asked if they had any outside conflicts with their studies at the university. Most students (65%) revealed they had no outside conflicts. The largest number of those who did cite an outside conflict reported issues with job interference. Work related issues affected just over 16% of those surveyed. The next most reported conflict derived from family/child issues affecting 11% of those surveyed. Other sources

of outside conflict reported by less than 2% of the population were medical, computer issues, private matters, and unknown interruptions (n=147).

When asked why students chose to pursue the BSAS degree, responses were fairly simple to categorize as all responses easily fell into one of four themes: career progression, personal goals, graduate school, or interest in subject matter as shown in Table 38. The greatest percentage (57.5%) cited the pursuit of the degree was for employment, job, or career progression purposes. Some of the reasons cited were:

- “I want to advance at work into a management position”
- “It will be a requirement for my position at work”
- “More options for jobs. I don't like the career I'm in right now”
- “Moving up the ladder in the agency where I am currently employed”

The second most popular response for pursuing the BSAS degree (21.6%) was to obtain a personal goal. Examples of those categorized in this area were:

- “Because a degree is important to me and my child is older now and it is easier for me to attend school”
- “Self satisfaction as well as desire to learn new things within my field”
- “For myself and my family”
- “To finish college once and for all”

Approximately 12% of those survey indicated that they were pursuing the BSAS degree as a means of advancing to a graduate degree, and about 9% due to subject interest as illustrated by the following respective narrative comments:

- “Because I want to go to law school and because I am limited on time. In other words, having an AS I am limited to pursuing a BSAS because of my age, I don't

have time to get an AA”

- “The BSAS route was the quickest way for my to earn a bachelors degree and move on to the master program which would give me a high level career and income potential”

- “To have more specialized training in my field”

- “Because I like Public Health”

Table 38

Why Students Pursue the BSAS Degree (n=153)

Why	Frequency	Percent	Cumulative %
career progression	88	57.5	57.5
personal goal	33	21.6	79.1
grad school	19	12.4	91.5
subject interest	13	8.5	100.0

A series of questions were asked of surveyed students about the university environment, faculty, peers and extracurricular activities. Student responses will be further examined in the next section of this chapter, *Comparisons Across the K-20 System*, but they are presented here as relevant to students’ university experience.

Nearly 88% of those surveyed agreed or strongly agreed that they were pleased with the university (n=159).

Almost 80% indicated that their university curriculum was relevant to their personal goals (n=159).

There were 69% who feel/felt that they have/had a good relationship with their university faculty (n=159).

About 62% felt they have/had a good relationship with their university peers (n=159).

Just over 55% disagreed or strongly disagreed that they had engaged in extracurricular activities at the university (n=159).

Students were asked what factors have contributed to their academic performance at the university. Self-motivation was the dominate response by nearly 45% of those surveyed. Other contributing factors were provided through open-ended responses falling within the general themes listed in Table 39 below.

Table 39

Factors Contributing to Student’s University Performance (n=134)

Factor	Frequency	Percent	Cumulative %
family	12	9.0	9.0
graduation	11	8.2	17.2
maturity	16	11.9	29.1
motivation	60	44.8	73.9
nothing	7	5.2	79.1
online	10	7.5	86.6
professors	11	8.2	94.8
work	7	5.2	100

Students were asked to compare their study habits at the university with their study habits at the community college to determine if there was any change. The Liker-scale statement was, “My study habits at the university are/were better than my study habits at the community college.” Almost 56% agreed or strongly agreed with this statement revealing that over half of those surveyed felt that their study habits had improved. Over one third of survey respondents neither agreed nor disagreed with the statement which may indicate their neutrality on the matter, or that they actually perceived no comparative improvement in their study habits. And only about 8% disagreed or strongly disagreed with the statement as illustrated in Table 40.

Table 40

University Study Habits Better than Community College (n=160)

Improved Habits	Frequency	Percent	Cumulative %
strongly agree	29	18.1	18.1
agree	60	37.5	55.6
neither agree nor disagree	58	36.3	91.9
disagree	12	7.5	99.4
strongly disagree	1	.6	100

Survey question #86 asked, “What motives/motivate you to complete the BSAS degree?” As reflected in Table 41, a sense of self-accomplishment was the most stated reason cited by survey respondents. Almost a quarter of those surveyed stated that their source of motivation was attributed to their family. Career advancement and the ability to gain employment were other highly regarded reasons cited by respondents.

Examples of narrative responses explaining their motivation to complete the BSAS degree related to self-accomplishment were:

- “It’s a personal goal as well as an example for my nieces. Apparently, they see me as a role model and I feel obligated to be an appropriate one”
- “Personal desire to finish the degree”
- “Sense of accomplishment and personal achievement”
- “To prove to myself I can do this”

Those who stated that family was their prime motive ranked as the second largest group. A few of the narrative responses capturing the essence of this theme were:

- “I am the only person in my family that has a college education, I am setting an example for my 3 children to follow”

- “To be the first in my family and open more doors of possibility in the future. I have seen a lot of jobs I think I would have liked but they required a BS as a minimum education requirement”
- “Competition with my Brother and to make parents proud”
- “My children encouraged me”

Table 41

Motivation to Complete BSAS Degree (n=145)

Factor	Frequency	Percent	Cumulative %
accomplishment	42	29.0	29.0
advancement	31	21.4	50.3
age	2	1.4	51.7
family	34	23.4	75.2
grad school	6	4.1	79.3
job	24	16.6	95.9
none	4	2.8	98.6
professors	2	1.4	100.0

When students were asked to reflect upon their mentors for completing the BSAS degree, the majority identified family members. The thematic category of family members included husbands, wives, grandparents, and children. Unfortunately, the second largest group could identify no person as a mentor. However, the third largest group identified as mentors was academic advisors, which bodes well for the university. Co-workers, professors and peers followed as the other categories of those serving as mentors. Table 42 below shows the distribution among all mentor categories.

Table 42

BSAS Degree Completion Mentors (n=146)

Mentors	Frequency	Percent	Cumulative %
advisor	17	11.6	11.6
co-worker	11	7.5	19.2
family	80	54.8	74.0
none	25	17.1	91.1
peer	3	2.1	93.2
professor	10	6.8	100

Question #88 sought to determine students' perceptions of their academic performance at the university. The Likert scale statement was, "I perform(ed) well academically at the university." Responses were overwhelmingly positive with over 78% indicating that they felt they performed well at the university. Less than 3% did not feel that they performed well at the university, and about 20% were neutral on the matter as depicted in Table 43.

Table 43

Self-Assessment of University Performance (n=159)

Perform(ed) Well	Frequency	Percent	Cumulative %
strongly agree	39	24.5	24.5
agree	86	54.1	78.6
neither agree nor disagree	30	18.9	97.5
disagree	1	.6	98.1
strongly disagree	3	1.9	100

Students were then asked about their sense of satisfaction with their academic performance at the university. Although similar to the previous statement, this item was meant to discern if student performance was consistent with their self-determined level of satisfaction. Over three quarters (76.1%) of those surveyed felt satisfied with their academic performance at the university, 6.3% indicated they were not satisfied, and

17.6% were neutral (n=159). These data closely aligned with student performance reported in Table 43, which indicates that students' who performed well were generally satisfied their performance; student who were neutral about the quality of their performance were also equally neutral in their satisfaction levels; and student who did not feel they performed well were not satisfied with their poor performance. This alignment with performance and satisfaction serves as a reasonable validation of students' honesty in both responses.

As a continuation of assessing student performance at the university, students were asked to reflect upon their levels of effort. Item #90 on the BSAS Student Survey asked students to respond to the Likert scale statement, "I put forth a significant effort at the university." The overwhelming majority of respondents agreed or strongly agreed with the statement as shown in Table 44 below:

Table 44

Students' Effort at the University (n=159)

Significant Effort	Frequency	Percent	Cumulative %
strongly agree	53	33.3	33.3
agree	92	57.9	91.2
neither agree nor disagree	10	6.3	97.5
disagree	1	.6	98.1
strongly disagree	3	1.9	100

Information gathered to determine student peer group engagement though peer study groups will be used later to compare such engagement across the K-20 system. Consequently, similar to high school and community college reflections, students were asked about their participation in peer study groups. Survey respondents indicated that the majority (67%) did not engage in peer study groups (n=155).

The Likert scale statement was, “My interaction with academic advisors/counselors at the university was adequate.” Table 45 below shows that approximately 67% agreed or strongly agreed with the statement, and only about 10% disagreed or strongly disagreed.

Table 45

Interaction with University Advisors (n=160)

Adequate	Frequency	Percent	Cumulative %
strongly agree	27	16.9	16.9
agree	80	50.0	66.9
neither agree nor disagree	38	23.7	90.6
disagree	8	5.0	95.6
strongly disagree	7	4.4	100

One measure of maturity is the willingness and ability to engage superiors (in this case professors) in a meaningful way. Considering that the average age of the BSAS population is about 37 years of age (Table 1), it is reasonable to expect that these students would more mature and more willing/able to engage faculty members beyond routine classroom requirements. Interestingly, only 28% of survey respondents reported that they interacted with faculty beyond routine classroom requirements (Table 46 below). This represents a reduction in the same inquiry about students’ interaction with community college faculty, in which 36% of respondents cited that they did, in fact, interact with their community college faculty beyond routine classroom requirements as previously in community college reflections (p.104).

Table 46

Interaction with University Faculty (n=160)

Interacted w/Faculty	Frequency	Percent	Cumulative %
strongly agree	13	8.1	8.1
agree	32	20.0	28.1
neither agree nor disagree	57	35.6	63.7
disagree	48	30.0	93.7
strongly disagree	10	6.3	100

When asked to reflect upon their attitude about completing university homework and assignments, 91.8% stated that they conscientiously completed reading and homework assignments. Less than 3% of those surveyed reported that they did not conscientiously perform these university requirements (n=159).

Students were posed with an open-ended question about sources for academic support. Question #95 asked, “From whom do you seek assistance with academic assignments. Approximately 55% of those surveyed stated that they seek assistance from their professor or teaching assistant (TA). About 14% sought assistance from their peers. Only 8% relied upon family members. Nearly 19% stated that they did not seek assistance with academic assignment from anyone, and there were numerous students who did not provide any narrative response at all (n=138).

Self-efficacy of BSAS students was assessed by asking them if they felt capable of performing within the university environment. Those responding to the Likert scale survey statement, “I felt capable of performing in the academic setting of the university” agreed or strongly agreed at the rate of just over 93% as shown in below Table 47 Only three students (about 2%) disagreed or strongly disagreed with the statement.

Table 47

Capable of Performing at the University (n=159)

Capable	Frequency	Percent	Cumulative %
strongly agree	56	35.2	35.2
agree	92	57.9	93.1
neither agree nor disagree	8	5.0	98.1
disagree	1	.6	98.7
strongly disagree	2	1.3	100

When students were asked about their level of competency using library information resources, about 70% agreed or strongly agreed with the statement, “I am/was confident using library resources to conduct research at the university.” Only three students (about 5% disagreed or strongly disagreed with the statement, and about 25% neither agreed nor disagreed (n=159).

Archival data reveals that the mean grade point average of BSAS graduates has been established, to date of this research, at 3.12 (pg. 74). When survey respondents were asked, “What is/was your anticipated grade point average upon graduation from the university (estimated)?” they self-reported a slightly grade point average upon their [anticipated] graduation as shown in Table 48.

Table 48

BSAS Anticipated Graduation GPA (n=148)

Quartiles	Graduation GPA
Lower Limit	2.00
25 th Percentile	3.00
50 th Percentile	3.50
75 th Percentile	3.60
Upper Limit	4.00

Mean=3.32, Median = 3.50, Standard Deviation = .422

Narrative Statements by BSAS Students

The final two survey items were open-ended questions allowing students to identify any issues of concern about their academic experiences that they felt were applicable to this study. The intention of these final two questions was to invoke narrative responses on any relevant matter students felt were not addressed by any previous question. The first question, survey item #99, asked them to provide any additional comments regarding their past academic engagement. There were 53 students who provided comment. A dozen of the most interesting and revealing comments representative of the emergent themes were:

- “As far as High School goes, what can I say? It was the 70's and I was a kid. If I only knew then what I know now”

- “Having constantly moved within the US and internationally, I never had a strong foundation nor continuously attended classes. All that I learned was by self-studies and asking people in advanced classes to help out when I encountered problems. I went from 3rd grade to Standard 1 (did not know the local language) to high school. Whatever I did was due to my primary school education in South Carolina. High school experience, and was marred with the state recruiting incompetent teachers based on who they knew or how much they bribed to get the job. Although to someone, my academic efforts may seem mediocre, I am proud of what I have accomplished thus far”

- “I am very thankful for this program being established for me because without it I may have not chosen to go back and further my academic education. This was a door opening for me! Thank You”

- “I was intimidated by school prior to entering the AS to BS program. Now I feel empowered and I am going to consider getting my masters”

- “If [named community college] did not give me the confidence and resources I needed and the time on behalf of all the professors who assisted me I would not have been able to finish”

- “My parents never thought that an education was important and they never encouraged us to go to college. I really didn't take school very seriously the first time around. As I grew up and grew older I realized the importance of an education”

- “Until I was close to completion of my AS degree I was very lazy. It took me a couple of semesters to see how important a good education really is and how much of a necessity one is”

- “I used to involve myself with academics because it was what other people said I should do, that it was necessary. Today, I am motivated to learn by my own desire to understand more about the world around me and to better myself and those around me”

- “I never really had any real desire to go to college. Actually at one point I almost dropped out of school in the 10th grade, due to family problems. I actually did graduate and finally made it to college. In community college I still didn't focus as much as I should and it took me a lot longer to finish because I changed my major a couple of times”

- “I was distracted during high school. My community college experience was a much more positive setting, I was enjoying the classes I was attending”

- “Back in the high school days, it was generally poor (from attitude to performance) due to an immature outlook”

- “My first 3 years in college was about fun and friends. Grades weren't great and I didn't put forth much effort..

The final survey question, item #100, asked respondents to provide additional information regarding their current academic engagement. The themes students brought forth are represented in the following narrative comments:

- “Coming back as an adult gave me the maturity I needed to better manage my time. I had serious desire to accomplish my goal and prove to myself and my family that I could do it”

- Currently I am in the PhD program in public health and feel that without the opportunity to have received the BSAS degree I would not be where I am today. I thank [advisor’s name] and those at the university who have supported this program. I encourage my students at [community college name] to continue on through this same avenue for the opportunities that it provides”

- “I am an online student because day to day I have to work for a living to provide for my family. If I only could stay home and go to school full time and focus I would be a 4.0 student”

- “I am in the MACJA cohort in Sarasota and cannot believe that I am working on my Master's degree; what a great feeling!”

- “I am more motivated now and much more mature. I am ready to finish this degree”

- “I encourage my children often to really think about going to college. They see their mom in college and it's tough on them; they sacrifice too. I should have more time to devote to them. Had I finished HS and gone to college when I was young, things

would be a lot different. They understand, from watching their mom, that college is important and that attending right out of HS really is the best way to go. We never know what the future has in store and proper planning can make all the difference in the world”

- “I have been working on my Master’s. I don't think people realize how important guidance counselors/advisors are in the career path one chooses. Again, if it wasn't for [advisor’s name] I don't think I would have a Bachelor's Degree. I believe there is a major disconnect between corporate world and academics and I don't feel teachers who have been in academia their whole life understand how hard it is for students trying so hard to get back into school. Juggling work, school, family, etc. is overwhelming. I feel that the homework given sometimes proves unnecessary. I don't feel that the amount of homework (small or large) prepares you in any shape, way or form for the work environment and I feel that I am a dedicated worker who has been working since I was 16. I appreciate all the efforts of [advisor’s name] accepting me into this program. I will be forever grateful”

- “I have been working on my master’s degree and I am doing so much better! I have learned my lesson”

- “I work hard to correct any difficulties that I encounter and I am not shy about obtaining the information that I need to be successful. I have learned to work and just complain”

- “It was very strange going back to school after almost 20 years. I have really enjoyed my classes and now look forward to learning new things”

- “Law school is going well”

- “Once I started USF I have given it 100%. I love my school! I would not go anywhere else”

- “Though a degreed education is a necessity to earning a good wage, I find that pure higher learning is entertaining and I try to learn as much as I can about everything”

- “I now have better study habits and get good grades. Motivated to finish my degree”

Comparisons Across the K-20 Experience

In the BSAS Transfer Student Survey (Appendix C) there were numerous student responses that were amenable to comparing the surveyed population’s experiences across the K-20 system. Survey items used in this comparison are annotated on the survey instrument with a caveat (Comparison of Responses – COR) indicating that students’ reflections would be compared across their high school, community college, and university experiences. Each question/response designated with the COR caveat reflects the three survey items to be used. For example survey item #25, “I was generally pleased with the high school I attended”, is annotated with (COR 25,47,79) identifying the similar survey items for high school (HS), community college (CC), and the university (UN) to be compared in this section of Chapter Four.

By survey design, students were asked to reflect upon certain comparable high school, community college and the university experiences to determine any possible changes in their views, perceptions, or attitudes about their education as they moved across the K-20 system. The following 14 aspects of student engagement and performance were analyzed within and between each progressive educational level:

1. Amenability toward school environments
2. Curricular relevance
3. Faculty relationships
4. Peer relationships
5. Extracurricular activities
6. Academic performance
7. Satisfaction with academic performance
8. Self-assessment of effort
9. Participation in peer study groups
10. Academic advising
11. Interacting with faculty
12. Completion of reading/homework assignments
13. Self-efficacy
14. Information literacy

The comparison of each of these items follows:

Survey respondents were asked to assess their pleasure with each academic environment using Likert scale responses. As shown in Table 49 below, students indicated that they gained a greater positive view of the educational environment as they progressed across the K-20 system. The collective positive response about their community college environment increased substantially over their perceptions about high school, and a slightly increased positive view was reported between the community college and the university. Also evident was a noted decrease in negative opinion about school environment is evident as students moved across the K-20 system.

Table 49

Comparison – Amenability Toward School Environments

Pleased	HS%	CC%	UN%
strongly agree	16.7	30.7	25.2
agree	42.3	53.6	62.3
neither agree nor disagree	18.5	8.4	10.7
disagree	16.1	4.2	.6
strongly disagree	6.5	3.0	1.3

Collective Positive Response: HS=59.0%. CC=84.3%, UN=87.5%

In each academic setting, survey respondents assessed the relevance of their curriculum to their personal goals. Only 36.5% of respondents agreed or strongly agreed that their high school curriculum was relevant, but a tremendous jump in students' opinion about curricular relevance was attributed to the community college. A slight decrease in students' positive opinion occurred as they moved from the community college to the university, while negative opinions remained nearly constant (Table 50).

Table 50

Comparison – Curriculum Relevant to Personal Goals

Relevant	HS%	CC%	UN%
strongly agree	7.8	33.1	27.0
agree	28.7	49.1	52.8
neither agree nor disagree	35.3	12.9	15.7
disagree	21.6	3.1	2.5
strongly disagree	6.6	1.8	1.9

Collective Positive Response: HS=36.5%, CC=82.2%, UN=79.8%

Survey respondents were asked if they had a good relationship with their faculty to ascertain perspectives about student-faculty associations within each institutional type. As shown in Table 51 below, student-faculty relations in the high school and the

community college environments were generally positive, but students did not reveal the same level of good relationships were evident within the university. In fact, negative responses outweighed positive responses with respect to their relationships with university faculty.

Table 51

Comparison – Faculty Relationships

Good Relationship	HS%	CC%	UN%
strongly agree	17.4	30.3	8.1
agree	43.7	39.4	20.0
neither agree nor disagree	18.6	24.8	35.6
disagree	15.0	3.6	30.0
strongly disagree	5.4	1.8	6.3

Collective Positive Response: HS=61.1%, CC=69.7%, UN=28.1%

Students generally reported their peer relationships to be good within each academic setting. However, there was a noticeable declining trend in their collective positive responses for peer relationships as they transitioned across the K-20 system, and an upward trend by those who stated that they neither agreed nor disagreed with the Likert scaled statement about having good relationships with peers (Table 52). The percentage of survey respondents who disagreed or strongly disagreed with the statement about having good relationships with their high school peers was notably higher than their respective percentages relating to their community college or university peers, which were both selected as a response by less than 2% of survey respondents as shown in Table 52 below.

Table 52

Comparison – Peer Relationships

Good Relations	HS%	CC%	UN%
strongly agree	23.8	23.9	13.2
agree	48.8	46.0	48.4
neither agree nor disagree	17.7	28.2	36.5
disagree	6.1	1.2	.6
strongly disagree	3.7	.6	1.3

Collective Positive Response: HS=72.6%, CC=69.9%, UN=61.6%

As Kuh (2005a) points out, student engagement represents both the time and energy students invest in educationally purposeful activities as well as the effort that institutions devote to using effective educational activities within their programs and practices. Extracurricular and co-curricular activities can also help students engage with their peers, instructors and the educational environment in positive ways. BSAS students responding to this survey clearly indicate that they are not engaged in such activities at the community college or the university, and that their participation has continued to decline as they progressed across the K-20 system (Table 53).

Table 53

Comparison – Extracurricular Activities

Engaged	HS%	CC%	UN%
strongly agree	19.6	7.8	3.8
agree	32.1	12.0	9.4
neither agree nor disagree	14.9	23.4	31.4
disagree	20.2	38.3	39.6
strongly disagree	13.1	18.6	15.7

Collective Positive Response: HS=51.7%, CC=19.8%, UN=13.2%

For each academic setting, students were asked to reflect upon their academic performance and respond to the simple statement, “I performed well in [each level].”

Survey respondents' self-assessment of their academic performance increased significantly from high school to community college, but dropped somewhat at the university as illustrated by their collective positive responses shown in Table 54.

Table 54

Comparison – Academic Performance

Performed Well	HS%	CC%	UN%
strongly agree	15.5	37.7	24.5
agree	39.3	49.7	54.1
neither agree nor disagree	20.2	10.2	18.9
disagree	18.5	1.8	.6
strongly disagree	6.5	.6	1.9

Collective Positive Response: HS=54.8%, CC=87.4%, UN=78.6%

Students' level of satisfaction with their academic performance in each academic setting was examined. Only about 45% of respondents were satisfied with their high school performance, but they were very satisfied with their higher education performance. Viewing this item from students' negative (unsatisfied) perceptions, there was a drastic difference in their self-assessment across the K-20 system as nearly 45% reported dissatisfaction with performance in the high school setting dropping to less than 5% in the community college and less than 6% at the university as reflected in Table 55.

Table 55

Comparison – Satisfaction with Academic Performance

Satisfied	HS%	CC%	UN%
strongly agree	13.7	36.1	25.2
agree	31.0	47.6	50.9
neither agree nor disagree	10.7	11.4	17.6
disagree	27.4	4.8	3.8
strongly disagree	17.3	0.0	2.5

Collective Positive Response: HS=44.7%, CC=83.7%, UN=75.1%

Another aspect of students' academic performance was determined by asking students to reflect upon the effort they had put forth in each academic setting. Again there was a marked progression of their collective positive response across the different academic environments. Only a little over one-third of the respondents acknowledged that they gave a significant effort in high school, but their self-assessment of effort in the community college and the university was greatly increased. As shown in Table 56, there was also a decline in students' neutrality across each educational setting relating to this topic, which affords more reliability to the collective positive responses.

Table 56

Comparison – Self-Assessment of Effort

Gave Significant Effort	HS%	CC%	UN%
strongly agree	11.4	36.4	33.3
agree	24.0	46.7	57.9
neither agree nor disagree	17.4	13.9	6.3
disagree	28.7	3.0	.6
strongly disagree	18.6	0.0	1.9

Collective Positive Response: HS=35.4%, CC=83.1%, UN=91.2%

Peer study and self-directed group participation were included as a point of inquiry in this survey to determine if students were taking measures to improve their academic performance by engaging with others in their study processes. Table 57 shows that students' participation in peer study was most prevalent at the community college.

Table 57

Comparison – Participation in Study/Work Groups

Participated	HS%	CC%	UN%
yes	19.4	48.2	33.5
no	80.6	51.8	66.5

Good academic guidance is generally recognized as integral to students' efficient progress and success. During the focus group and through routine interactions with this student population, many students have complained that they did not feel their academic advisors and counselors had provided adequate services. This issue is corroborated in Table 58 below for the high school setting, but respondents acknowledge a progressive improvement as they moved to the community college and the university.

Table 58

Comparison – Interaction with Counselors and Advisors

Adequate	HS%	CC%	UN%
strongly agree	4.2	10.8	16.9
agree	27.3	44.9	50.0
neither agree nor disagree	23.0	30.5	23.8
disagree	27.9	9.6	5.0
strongly disagree	17.6	4.2	4.4

Collective Positive Response: HS=31.5%, CC=55.7%, UN=66.9%

Chickering and Reisser (1993) address the issue of maturity within their *seven vectors of student development* as previously discussed in Chapter Two (p.35). As an individual develops socially and cognitively, they move through autonomy toward interdependence and become adept at developing mature interpersonal relationships. Accordingly, these mature students would be expected to better engage their teachers, instructors and professors beyond routine classroom requirements. As such, BSAS students were asked to respond to the statement, “I routinely interact(ed) with [school level] faculty beyond classroom requirements” using a Likert scale to determine their past and current perceptions about their relationships with faculty. Only about 26% reported that they routinely interacted with high school faculty beyond normal classroom

requirements, and contrary to the researcher’s expectations, there was only a slight increase in the collective positive responses for the community college (35.7%) and the university (28.1%) as shown in Table 59.

Table 59

Comparison – Interaction with Faculty			
Routinely Interacted	HS%	CC%	UN%
strongly agree	5.4	12.1	8.1
agree	20.5	23.6	20.0
neither agree nor disagree	17.5	23.0	35.6
disagree	39.8	32.7	30.0
strongly disagree	16.9	8.5	6.3

Collective Positive Response: HS=25.9%, CC=35.7%, UN=28.1%

Students’ completion of out-of-classroom academic assignments was considered to be worthy of investigation as a factor of academic performance. Survey respondents were asked to reflect upon their conscientiousness toward completing such assignments across each institutional setting. Table 60 shows a dramatic difference in students’ attitude about their commitment to completing reading/homework assignments as they moved from high school to the community college, especially for those who strongly agreed that they conscientiously completed the assignments.

Table 60

Comparison – Completion of Reading/Homework Assignments			
Conscientiously Completed	HS%	CC%	UN%
strongly agree	17.0	34.8	37.7
agree	41.2	55.5	54.1
neither agree nor disagree	10.3	7.9	5.7
disagree	24.8	.6	.6
strongly disagree	6.7	1.2	1.9

Collective Positive Response: HS=58.2, CC=90.3%, UN=91.8%

Self-confidence/self-efficacy in one’s ability to perform well in school was considered a contributing factor for BSAS students’ academic success. To measure students’ opinion of their confidence and efficacy across each academic setting they were asked to respond to the statement, “I felt capable of performing in the academic setting of [institutional level].” As illustrated in Table 61, the overwhelming majority of those responding to the survey indicated that they felt capable of performing at each level, and collective positive responses progressively increased as they moved across the system.

Table 61

Comparison – Self-efficacy

Felt Capable	HS%	CC%	UN%
strongly agree	31.1	30.9	35.2
agree	49.1	60.0	57.9
neither agree nor disagree	14.4	6.7	5.0
disagree	3.0	.6	.6
strongly disagree	2.4	1.8	1.3

Collective Positive Response: HS=80.2%, CC=90.9%, UN=93.1%

Student performance at the university level is often dependent upon one’s ability to conduct research. In this survey, the ability to conduct research using library resources was used as a measure of students’ information literacy. Survey respondents were asked if they were confident in their ability to use library resources to conduct research at each institutional level. Results of this analysis did not show a progressive increase in students’ sense of competency for library usage, which may be attributed to the increased demands for research at the university level. In fact, there was a decline in their competency rating at the university (Table 62).

Table 62

Comparison – Information Literacy

Competent	HS%	CC%	UN%
strongly agree	22.0	27.7	24.5
agree	45.2	52.4	45.9
neither agree nor disagree	16.7	13.3	23.9
disagree	10.7	6.0	3.1
strongly disagree	5.4	.6	2.5

Collective Positive Response: HS=67.2%, CC=80.1%, UN=70.4%

Responses to Research Questions

This study focused on three fundamental research questions: 1) What are the demographic and academic characteristics of AS transfer students?; 2) How have AS transfer students engaged in their educational processes connected with their academic institutions?; and 3) Are AS transfer students succeeding at the university?

The following responses to the above three research questions were derived from archived institutional data, evaluation of students’ responses to questions on the BSAS Transfer Student Survey (Appendix C), the researcher’s interpretation of all compiled data, personal interactions with the students, and an intimate understanding of the BSAS program.

Research Question One: What are the demographic and academic characteristics of AS transfer student? The average AS transfer student is 37 years old. Sixty percent of the AS transfer student population is female. Their race/ethnicity mirrors national norms for all university students. They are predominately full-time workers (averaging 40 hours per week) and part-time students (averaging 9 hours per semester). They transfer from the community college to the university with a mean grade point average of 2.98 and maintain a mean grade point average of 3.12 at the university. Over half of the surveyed

student population was married and over two thirds had children. Over 91% were employed, and 69% were working in their AS technical/occupational field with an average one-way commute to work of 30 minutes. The median income reported was approximately \$61,000. The majority indicate that their parents have earned a high school diploma or less, and over 40% of AS transfer students are the first in their family to attend college.

Less than half of the AS transfer student population reported that their past attitude about higher education was positive as opposed to their current attitude which is 72% positive. They feel overwhelmingly confident in their English, math, reading and communication skills. They report that they are highly motivated students driven by a desire for career advancement, the sense of personal accomplishment and the support of their family members.

As they have progressed across the K-20 system, they have attained an increasingly more positive attitude about higher education, and acknowledge that they have put forth an increased effort toward their academic pursuits from high school to community college and from community college to the university. Respondents to the survey also indicate a strong and growing sense of self-efficacy in the higher educational environment.

The overall picture of the AS transfer students examined in this study reveals that they are mature, hard working students who are motivated to successfully complete their bachelor's degree. Although they may not have been stellar high school students they have progressively advanced across the K-20 system becoming good students at the community college and even better students at the university.

Research Question Two: How have AS transfer students engaged in their educational processes connected with their academic institutions? According to many scholars, as noted in Chapter Two, student engagement is considered to be an important component of student development and student success. Student engagement is associated with the vast array of student's experiences within their institutions and their participation in active learning, collaborative learning, extracurricular activities, co-curricular activities, student-faculty interactions, advising and academic support services. According to the results of this study, using any of the identified measures for student engagement, BSAS students are clearly disengaged.

AS transfer student disengagement revealed in this study is not a reflection upon their academic institutions. Their disengagement is more likely attributed to their level of maturity, their work and family obligations, and their general disassociation with the activities and services afforded to the traditional student population. They report negligible participation in extracurricular activities, and weak interactive relations with their faculty and peers. The vast majority of the BSAS students do not participate in study groups, and they rarely cited any institutional support services as a reason for their academic progress or success with the exception of academic advising.

However, using another set of measures for student engagement, the average BSAS student is quite engaged in their work life, their family life and their academic pursuits. They are working full-time, raising families, commuting to and from work, commuting to and from school, taking an average of 9 credit hours each semester, carving out enough time to study, and successfully balancing everything.

This study examined students' transition across high school, community college and the university revealing some positive aspects of student engagement relating to institutional efforts. Students reported that their engagement with academic advisors progressively and positively increased as they moved across the K-20 system as only 31% were positive about their interaction with high school advisors increasing to 56% at the community college and 67% at the university (p. 131). The surveyed population also noted a positive view of curricular relevance to their personal goals as they progressed across the K-20 system with high school curriculum receiving only 37% approval while community college and university curriculum earned about 80% of the population's approval for being relevant (p.126).

Finally, very few students indicated or commented negatively about an institutional lack of effort or mechanisms to enhance student engagement, but this may be due, in part, that the students themselves are disconnected from the institution. The results from this study, however, would indicate that some attention may be warranted to improve student-faculty relationships, peer interactions and creative ways to engage this unique non-traditional student population at the university.

Research Question Three: Are AS transfer students succeeding at the university? The answer to this research question is yes. AS degree holders who have transferred to the BSAS degree program are doing very well. Archival data on BSAS graduates shows, as a distinct student population, they are perpetuating through their BSAS degree accumulating fewer credit hours than the national average (p.77), and they are graduating with a very respectable grade point average of 3.12 (p.74). This study revealed that they see themselves as self-motivated, conscientious, career-focused and hard-working.

Although many of the BSAS students acknowledged mediocre academic performance in earlier endeavors, their reported progressive improvement across high school, community college and the university was evident. Their self-confidence has been cultivated by their previous successes in higher education and maturation. Over 91% of those surveyed were employed full-time. Nearly 69% were employed in the technical or occupational specialty acquired through their AS degree, and most were now explicitly pursuing the BSAS degree for career enhancement, career progression or graduate school purposes. This purposeful aspect of a college education for these students was certainly a potent factor in their improvement across the K-20 system as covered earlier in this chapter (pp 110-112).

BSAS students' academic performance was verified through archived institutional data and supplemented by student responses and narrative comments on the BSAS Transfer Student Survey (Appendix C). Students endorsed their own success and declared within this research that they are pleased with the university, they believe they are performing well, they are satisfied with their academic performance, they are putting forth a concerted effort, and they anticipate graduating with a grade point average higher than their current one. Through my routine interaction with these students, I am confident that the students who participated in this survey were forthright in their responses to questions and candid in their narrative accounts. Their ability to perform and succeed at the university was corroborated through an assessment of academic records and a comprehensive analysis of their development and motivation to succeed.

Conclusion

This study of Associate in Science (AS) to Bachelor of Science in Applied Science (BSAS) transfer students was an embedded case study designed to analyze student characteristics, engagement and performance of those who have transferred into the BSAS degree program at a major research university. The research contained herein has provided a rich and comprehensive analysis of this relatively new and unique student population at the university about whom little was known prior to this study.

Of particular concern to the researcher was capturing the BSAS students' academic background, life experiences, and perspectives about migrating across the high school and community college environments prior to transferring to the university as possible determinants of their preparation for baccalaureate studies. Consequently, students were asked to reflect upon those experiences that related to their development and performance across these education systems. This approach provided informative and interesting results contrasting students' past and current educational experiences and yielded a strong foundation for understanding their circumstances, their views about education, their path of growth and development, and their aspirations.

The survey instrument, The BSAS Transfer Student Survey (Appendix C), contained 100 items designed to obtain specific information about this non-traditional student population not otherwise available through any other source. The survey adopted a conceptual framework drawn from existing national survey instruments on student engagement. No existing survey, however, was wholly applicable to this unique non-traditional BSAS student population which required the construct of an original survey modeled after the National Survey of Student Engagement. The length of the survey may

have contributed to a reduced response rate, but the researcher opted to sacrifice potential quantity of respondents in favor of obtaining a more complete and comprehensive set of qualitative data. Fortunately, about 42% of the total BSAS student population responded to the survey providing meaningful input, which resulted in this comprehensive analysis of the BSAS transfer students' characteristics, engagement and performance.

Chapter Five

Findings, Conclusions, Implications, and Recommendations

The purpose of this study was to examine Associate in Science (AS) students who transferred into the Bachelor of Science in Applied Science (BSAS) degree program to determine their student characteristics, level of engagement and performance. As a relatively new and unique option for AS degree holders, these students are now leaving the community college and entering the university with technically- or occupationally-focused two-year degrees which have historically been viewed as “terminal” two-year degrees.

There are some within higher education who believe that these students have not been academically prepared for university-level studies, because they have only engaged in technical or occupational studies instead of a well-rounded liberal arts curriculum within the broadly recognized community college credential deemed appropriate for transfer to the university – the Associate in Arts (AA) degree; not the Associate in Science (AS) or Associate in Applied Science (AAS) degree. This study involved a comprehensive investigation and analysis of AS transfer students entering the BSAS degree program at a major research university for the purpose of gaining insight and better understanding about BSAS students to determine if they are, in fact, prepared and suitable for baccalaureate-level studies.

Determining the worthiness of AS degree holders for transfer to the university was one of the researcher's motivations for conducting this study. Another motivation was to ascertain any issues concerning this new student population at the university that may warrant a reaction or resolution by the institution. A final motivating factor for conducting this study was to examine the overall viability of such AS-to-BS programs within the scheme of higher education to provide institutional leaders, policy-makers, accrediting agencies and legislators with the information necessary to determine if it is the right thing to do for students, educational systems, and the workforce.

The following summation provides a recapitulation of the salient facts, observations and outcomes of the study. This chapter includes the method summary, summary of findings, conclusions, implications for practice, recommendations for further research, and the summary statement.

Method Summary

This research used a qualitative embedded case study approach incorporating limited statistical analyses of certain data elements. Institutionally archived data was drawn from the university's student database for the entire BSAS student population (N=407) to analyze demographic and academic performance information. A student survey instrument was crafted to collect additional data deemed by the researcher as important missing information needed for developing a comprehensive understanding of the BSAS student. The survey was divided into four subsections of inquiry addressing demographics, high school reflections, community college reflections, and university reflections. The survey included Likert scale and open-ended items intended to gain qualitative information about student characteristics, orientations, and experiences. The

survey was particularly focused on developing insight about students' perceptions of themselves, their engagement with educational processes and environments, and their academic performance.

The BSAS students within the university's population were first identified through the institution's archives. All archival data for this population were secured, collected and analyzed. From the institution's list of all BSAS students, a focus group was selected through purposeful random sampling. The focus group consisting of 8 students was convened to discuss BSAS student issues and complete the pilot survey. All focus group participants concurred that the survey was appropriately designed for gathering the requisite BSAS student information relevant to this study, and only minor typographical errors were identified for editing. The survey was then prepared for online access through Survey Monkey© and the link was emailed to the entire BSAS student population (N=407). Three separate solicitations of the entire BSAS population were executed approximately two weeks apart requesting that they complete and submit the survey. The final response rate was 41.5% consisting of 137 active students and 32 BSAS graduates (n=179).

Archived data was collected and analyzed to determine the demographic and academic profile of the BSAS student population. This institutional data included age, gender, race, academic area of study, community college transfer grade point average, and university grade point average. Results from this analysis of the archival information established a baseline for several comparisons with national-level data and the subsequent self-reported data provide by the survey respondents.

There was an extensive amount of data collected through institutional archives and survey responses, which required multiple analyses, syntheses, and tabular presentations to make sense of the information compiled. This consisted of calculating frequencies, means, medians, standard deviations, thematic categorizations, and various comparisons/measurements of the collected raw data to develop meaningful results for the study. The statistical package utilized in this process was SPSS® for Windows®.

As a descriptive study, the primary intention of the researcher was to provide a comprehensive portrayal of this population of BSAS students. The embedded case study method used, as previously cited in Chapter Three, is the preferred research strategy when the focus of the study is a contemporary phenomenon within a real-life context and when the researcher has little control over events (Yin, 2003). This type of research can offer insight, enhance understanding, and provide meaningful guides for practice (Strauss and Corbin, 1998).

The qualitative aspect of this study provided rich personal narratives from the BSAS survey respondents that depicted their background and character; defined their experiences within their educational environments; and described their effort, engagement, motivations and aspirations. Likert scale statements, although quite efficient in a 100 item survey instrument, did not develop precise indicators of feelings, attitudes or perspectives because the options permit only a single scaled response. However, the Likert scale items did provide students' general sense of positivity, negativity or neutrality on relevant issues concerning their educational experiences.

The quantitative portions of this study provided a basis for interpreting BSAS students' attribute distributions, academic performance measures, and the comparisons of

means (within and between) various other established data points. Quantitative data within this study were non-analytical/non-predictive in nature. Descriptive statistics presented herein were primarily used to provide a statistical picture of data such as frequencies, distributions, means, comparisons, etc.

This mixed methods approach, although somewhat cumbersome, was a process that afforded optimum results for the study. It inherently allowed secondary/archival data to verify narrative responses, and the narrative responses and comported well with the existing data. This cross check of data sources offered a level of validity to both sources and further supported the validity of the study and the outcomes.

Summary of Findings

This research process employed was an embedded case study method to answer three fundamental research questions. Each research question is presented below with the significant findings of the study incorporating analyses and syntheses of the exhaustive data collected.

Research Question One: *What are the demographic and academic characteristics of BSAS transfer students?* Student characteristics were determined via comprehensive descriptive analysis of student demographics and academic background such as age, race, gender, BSAS major, transfer GPA, transfer hours, university GPA, university credit hours earned, commuting distances to campus and work, marital status, family educational level, socioeconomic status, and other factors that described this student population. Relevant information was drawn from archived data and the BSAS Transfer Student Survey (APPENDIX C).

The research revealed that Associate in Science (AS) transfer students who have entered the Bachelor of Science in Applied Science (BSAS) degree program at the university are, indeed, a new and unique population of undergraduate students within the university. They are certainly not first-time-in-college freshmen, nor do they meet the profile of the mainstream transfer students or other non-traditional transfer students. They are predominately mature (averaging 37 years of age), full-time working adults (91%) with families, a career, and a substantial income (average \$55,000) pursuing the bachelor's degree while taking an average of 9 credits per semester, maintaining a very respectable grade point average (about 3.2), and graduating with fewer accumulated total credit hours than the national average for transfer students. This student profile does not resemble any other student population currently being served by the university.

These are the students who have been historically denied access to senior institutions due to the non-transferability of their AS/AAS career credentials. Their vocationally-oriented degrees have carried a "lower status and do not find any easy counterpart at four-year colleges" (Townsend & Twombly, 2001, p.132,). This new BSAS degree has, indeed, provided such a capstone counterpart for these two-year degrees at the four-year colleges, and their "lower-status" AS degrees have proven to be quite adequate refuting the historical subjective discernment that these community college students were inadequately prepared, both academically and socially, for college-level learning (Howell, 2001).

As pointed out in the earlier literature review for this study, the social-cognitive issues associated to adult learning were applicable to the basic description of the BSAS student population. Students who have come to the university via the study of AS

degrees at the community college were usually engaged in situated learning. Learning is “situated” when it happens within a specific social arrangement or community of practice, which is generally in contrast with abstract, out-of-context classroom learning generally used in most university curriculum (Lave, 1998).

Drawing from early theories of adult learning, the majority of BSAS survey respondents validated the notions of John Dewey (1859-1952), generally stating that they sought learning to help them cope with life. Dewey and others believed that learning must be connected to adults’ lives, provide useful knowledge, increase their self-esteem, or aid in dealing with an experience or an anticipated life-changing event (Dewey, 1938; Rogers, 1969; Cross, 1981). Surveyed students overwhelmingly identified with these concepts indicating that their motivation for pursuing the bachelor’s degree and succeeding academically were attributed to career advancement, self-accomplishment, and taking care of their families. And nearly 80% of those surveyed stated that their curriculum was pertinent to their personal goals.

An important characteristic of the BSAS students was their 91% full-time working status, which certainly affected their ability to pursue higher education. Their average commute time to campus was reported to be about 30 minutes with the addition of the home to work commute averaging about 30 minutes. This amount of travel time in addition to the routine workday and family obligations was a contributing factor for the limited number of credit hours and time devoted to course requirements. The BSAS students’ average, however, taking 9 credit hours per semester was good, and they indicated that they routinely devoted about 13 hours per week to class assignments and homework.

BSAS students reported their family educational background with 71% reporting that their mother had completed a high school diploma or less; 63% reported that their father had completed a high school diploma or less; and only 44% of their spouses had attained the high school diploma. They also indicated that 41% were the first in family to attend college. Only 42% reported that their past attitude toward higher education was positive as opposed to 72% who now have a positive view of higher education. They feel confident in their ability to perform in university-level curriculum. They reported that they were confident in their college-level math skills at the rate of 72%, confident in their college-level English skills at 89%, and 93% reported they were confident in college-level composition and reading skills.

Gender and minority distributions among the BSAS population were consistent with national norms. There were disparities, however, between males and females pursuing the different areas of study in Early Childhood Development, Environmental Policy, Gerontology, Industrial Operations, Public Health and Information Technology. Extreme disparities were evident in the number and ratio of females overwhelmingly dominating studies in Early Childhood Development (96% female) and males who exclusively (100%) populated Industrial Operations.

As already outlined in this section, the average BSAS student is a mature, career-focused individual with a substantial salary. Our changing economy has resulted in the proliferation of jobs requiring the AS degree. As Debra Bragg (2001) outlines, these vocational careers offer substantial salaries and opportunities for advancement in the new economy requiring a degree that is more technological, requiring greater analytical and problem solving ability, and exists in a constantly changing environment that demands

continuous learning. Community colleges have recognized this need to integrate academic and vocational curriculum that prepares successful employees to be lifelong learners. Data revealed in this study supports the fact that these AS degree holders are adequately prepared to be successful lifelong learners.

Finally, the students in this survey were self-directed adults and aligned with Malcolm Knowles' theory on adult learners. Knowles noted the differences from child learning – pedagogy – and adopted the term *andragogy* to represent his theory of adult learning that emphasizes the self-directed character of adults and focuses more on the process of learning rather than content (Knowles, 1975, 1980, 1984). Students in this study closely resembled Knowles' ideas about adult learners as they represented the characteristics of adult social responsibility and the personal motivation to learn (Tawney, 1920; Lindeman, 1926).

Research Question Two: *How have BSAS transfer students engaged in their educational processes and connected with their academic institutions?* Student engagement included students' perceptions about the relevance of curriculum to their career goals; their relationships with faculty and peers, their engagement with institutional memberships, and perceptions about their experiences as a student. This research question evaluated engagement through students' self-reported assessments of their development, interactions, participation, and their views about changes they incurred over time and across educational settings. These measures of student engagement were patterned after the National Survey of Student Engagement (NSSE) with significant modifications geared to the BSAS student population. Evaluation of student engagement, as outlined by George Kuh and others (1994, 1995, 2005, 2006 &

2007), seeks to understand how students connect to their environment and how the environment affects them. These inquiries can provide insight about the educational environment's impact on students' social and cognitive development. The NSSE benchmarks are the level of academic challenge, active and collaborative learning, student faculty interactions, enriching educational experiences, and a supportive campus environment.

Certain issues of concern to the researcher required modification of elements in the NSSE inventory. Other unknown/unanswered aspects of student engagement specific to these students required additional Liker-scale statements and open-ended questions for inclusion into the BSAS Transfer Student Survey.

Interestingly, the students in this study oscillated among the various measures of student engagement. Understandably, they were disengaged with university extracurricular activities that would conflict with their jobs or family obligations. This explains why over 55% indicated that they did not engage in such activities at the university. However, nearly 88% of those surveyed agreed or strongly agreed that they were pleased with the university environment, which represented an upward trend when compared with their previous academic environments as only 59% were pleased with their high school, and about 84% were pleased with their community college.

Surveyed students reported that their university curriculum was relevant to their personal goals at the rate of 80%, but this represented a slight dip in their view of the community college curriculum for which 82% reported its relevance. This population had a negative view of their high school curriculum with only about 37% agreeing that it was relevant to their personal goals. As expected, the technical and occupational focus of their

community college curriculum was most important to students' elected goals and career choice, but university curriculum still held up with a high rate of relevance.

Only 28% of the surveyed BSAS students felt that they had a good relationship with their university faculty. This was a noticeable negative drop compared to their reflections about their high school experience with 61% reporting good faculty relationships, and nearly 70% who reported good relationships with their community college faculty. Students were subsequently asked about their routine interaction with faculty which produced similar results. Reflecting upon their experiences only about 26% felt they interacted with high school faculty beyond normal classroom requirements, 36% with community college faculty, and only 28% with university faculty. These responses reflecting the poor rating of student-faculty interaction across each environment were inconsistent with their reported good faculty relations at the high school and community college levels, but the cause of these low ratings for student-faculty interaction was not determined within this study.

Student engagement with peer study groups was negligible in the high school setting with only about 19% reporting they had engaged in study groups. This percentage increased to almost 48% at the community college, and then dropped to 34% at the university. This indicates that the BSAS students valued study groups more at the community college, but they generally did not pursue it as a means of improving their academic performance. These percentages at the university show that the majority did not engage in active collaborative learning.

Another peer related item of inquiry was their self-assessment of the quality of the relationships they had with peers at the different academic environments across the K-20

system. Students reported a steady decline of good relationships with peers as they migrated across the educational systems with 73% who felt they had good relationships with their high school peers declining to 70% at the community college, and only about 62% at the university.

There was a positive trend reflected in students' survey response related to their engagement with advisors and counselors. Academic advising by the university was considered adequate by approximately 67% of those surveyed. This was an 11% improvement over their reported community college advising as about 56% indicated their community college advising was, and only about 32% indicated their high school advising was adequate.

A challenging academic curriculum is one of the benchmarks for student engagement. The academic demands of university curriculum were compared to that of the community college and 67% of those surveyed reported that their university curriculum was more difficult than their community college curriculum. In a related measure of engagement, students were asked to reflect upon the effort they had put forth toward their academic pursuits at each institutional level. Survey results showed a dramatic increase in student effort as they moved across each level of the system. Only about 34% of the respondents reported that they put forth a significant effort in high school. The percentage of respondents reporting a significant effort at the community college rose to a little over 81%, and over 91% of the BSAS students at the university reported they put forth a significant effort.

The researcher's overall analysis of student engagement utilizing the benchmarks of the NSSE indicated that the BSAS students were only moderately engaged at the

university. The five benchmarks are 1) level of academic challenge, 2) active and collaborative learning, 3) student-faculty interaction, 4) enriching educational experiences, and 5) a supportive campus environment. BSAS students rated low on active and collaborative learning as they indicated low levels of participation in peer work groups, and due to their work/family obligations they do not participate in on-campus events or extracurricular activities. Student-faculty interactions were rated very low, and the vast majority did not feel they had good relationships with university faculty. This population also rates low on their engagement in enriching educational experiences. Due to their family and work obligations, they were not generally available to participate in volunteer services, internships, study abroad or other such activities.

Although the BSAS student population rates low on many measures of student engagement, the researcher notes that they are, in fact, very engaged in matters of work, family, and academics. They are engaged in adulthood. Considering that the concept of creating an environment of student engagement within the university is to better prepare undergraduate students for adulthood, the researcher suggests that most BSAS students entered the university having already reached that stage of their lives, and they have already become productive members of our society and the workforce.

Research Question Three: *Are BSAS transfer students succeeding at the university?* Student success was measured by archived grade point average, persistence, degree completion, and narrative responses to survey questions. These data afforded a qualitative and minimal quantitative analysis of information drawn from institutional data to describe academic performance through analyses of community college transfer grade

point average, university grade point average and persistence. Additional information was acquired from the BSAS Transfer Student Survey (APPENDIX C).

By the observed measures within this study, BSAS students are performing very well at the university. As a distinct transfer student population (N=407), they transferred to the university with a 2.98 community college grade point average and now hold a 3.12 grade point average at the university. BSAS graduates to date (n=118) support this level of academic performance with the BSAS graduate population having also earned a grade point average of 3.12.

These BSAS graduates completed their degree with fewer total number of credit hours than the national average for associate degree transfer students. Over 80% of the BSAS students have graduated with fewer credits than the national average of 148 credit hours. The mean earned credit hours for BSAS graduates was 137, and the median was only 128. Although the average number of enrolled credit hours per semester for BSAS students was only 9 credit hours, they are persisting through the degree at high rates maintaining their 9 credit hours per semester each term. This 3/4 rate of enrollment at the university was comparable to the students' self-reported level of enrollment at the community college. Their less than full-time enrollment is attributed to their full-time employment status as reported by over 91% of the students.

The reasons for BSAS student success at the university are multifaceted. The first and most obvious is the predominant level of maturity within the population. Malcolm Knowles (1978) noted that the adult student assumes the self-concept of being self-directed. The notion of self-directedness among BSAS students was prevalent in this

study. Adult learning emphasizes the self-directed character of an adult's social, civic and personal motivations to learn (Tawney, 1920; Lindeman, 1926).

Adults connect well to education when it meets their objectives and is relevant to their personal and professional goals. They come to college with a wide range of previous experiences, knowledge, self-direction, interests, and competencies (Speck, 1996). The BSAS students come to the university with a technical or occupational background, experiences of success and failure, and a strong motivation to maintain or improve their past academic performances. As revealed through the survey, over 93% of the BSAS students feel capable of performing at the university. Almost 80% reported that their university curriculum was relevant to their personal goals. Approximately 90% have clearly identified their occupation goals, and most are pursuing the bachelor's degree for career advancement. The majority identified their self-motivation and maturity as the primary factors contributing to their performance at the university. Over half of those surveyed claim that their study habits at the university are better than their study habits at the community college, and they reported giving significant effort toward university requirements with their sources of motivation coming from their families and their sense of accomplishment.

In the final analysis of BSAS student performance at the university, these students have performed well and continue to do so. Their academic performance was verified through analyses of archived institutional data and supplemented by student responses and narrative comments on the BSAS Transfer Student Survey (Appendix C). Throughout the survey students endorsed the findings of archival data review by commenting on their satisfaction with the university environment, their belief that they

were performing well, their satisfaction with their academic performance, their acknowledgement of putting forth a significant effort, and their anticipation of graduating with a grade point average higher than their current one. The culminating evidence from all sources analyzed shows that the BSAS students are a unique and new population of students at the university who have proven to be quite capable and successful.

Conclusions

This relatively new pathway for AS degree holders to pursue a baccalaureate degree has created a new and unique population of students at the university. This study examined these students' characteristics, engagement and performance. The research design was an embedded case study which analyzed institutionally archived data and student responses from a 100 item survey instrument. The study sought to answer three primary research questions: 1) What are the demographic and academic characteristics of AS transfer students?, 2) How have AS transfer students engaged in their educational processes connected with their academic institutions?, and 3) Are AS transfer students succeeding at the university? The concluding summary responses to these research questions follow:

1. *What are the demographic and academic characteristics of AS transfer students?* The AS students who have transferred to the BSAS degree program at the university are predominately mature, married with children, hard working, and academically prepared individuals completing a bachelor's degree for career advancement. They have already completed a technically or occupationally focused AS degree at the community college, and they either currently work or intend to work in these chosen career fields after completion of the BSAS degree. They transferred to the

university with respectable academic performance at the community college, and they are performing even better at the university.

2. *How have AS transfer students engaged in their educational processes connected with their academic institutions?* AS students who transferred to the BSAS degree program at the university have only moderately engaged with the university using the standard measures of engagement. According to NSSE benchmarks comprised of measuring level of academic challenge, active and collaborative learning, student faculty interactions, enriching educational experiences, and a supportive campus environment, the BSAS population does not appear to be engaged. However, the NSSE was not designed to measure level of engagement for this unique student population. The BSAS students would rate highly on other measures of engagement associated to adult learners with adult responsibilities. The BSAS population is very engaged in their responsibilities to secure their family, their career and their future.

3. *Are AS transfer students succeeding at the university?* Yes, the AS students who have transferred to the BSAS degree program at the university are succeeding. They are performing well academically, and performing well as participants in the workforce earning significant incomes. The BSAS graduates are achieving their academic goals and continuing with their academic pursuits. Some have gone on to graduate school, law school, medical school or dental school. Although the BSAS degree program has only been in existence for about five years, some are already in doctoral programs.

Limitations

Although survey questions were designed to make them as easy to understand as possible, each person surveyed may have interpreted the survey questions differently or

they may have experienced difficulty crafting a coherent narrative response or selecting an accurate response on Likert scale items.

A limitation of the case study is its weakness regarding generalization. The study of a particular case may not generate results that correlate well to the peculiarities of another. However, as Stake (1995) points out, “we do not study a case to understand other cases. Our first obligation is to understand this one” (p. 4).

Delimitation: Generalizations are limited to the Florida community college system and transfer policies of Florida’s State University System. The Florida AS degree is not equivalent to other states’ AS degrees. It is comparable to many other states’ AAS degrees, but differences could preclude an accurate one-to-one comparison.

Implications for Practice

This research study revealed numerous implications for improvements in practice. An issue that students revealed in their responses to the survey was their sense of disengagement with the university environment. Over half of those surveyed indicated that they did not engage in extracurricular activities, only 28% felt that they had a good relationship with university faculty, only 61% stated that they had good relationships with their peers, only 28% indicated that they interacted with faculty beyond routine classroom requirements, and only about 34% responded that they engaged in collaborative studies at the university.

Although this research showed that the BSAS population is inherently disengaged due to their many obligations and responsibilities as adults, parents, and full-time workers, there is much that higher education can do to better serve their unique needs. The university does not offer a large number of online/weekend courses or co-curricular

activities during evening hours or on weekends. The vast majority of the BSAS students (91%) are full-time employees with little opportunity to engage in activities scheduled during their working hours. They are also unlikely to engage in things geared to the interests or schedules of the traditional student population. The university could do much more to arrange curriculum, as well as extracurricular and co-curricular events, that are scheduled at more opportune days and times for the adult student.

With the very low perceptions of student-faculty relations and faculty interaction revealed in this study, it appears that the institution needs to raise the awareness of active-collaborative learning techniques among faculty at the university. Many of these mature students are older and have greater life experience than their professors, which should create the opportunity for stronger interpersonal relationships between faculty and the BSAS students. The university should encourage students and faculty to create and embrace new opportunities for adult interaction and active collaboration in the teaching and learning arrangement, which may be quite different than the traditional arrangements experienced by both to date in the K-20 system.

The overwhelming success of BSAS students at the university provides the impetus for greater promotion of this pathway to the baccalaureate among community college advisors, university recruiters and admissions personnel. Regardless of the advancement of AS-to-BS articulation, there is still a stigma among many higher education personnel. that the technical/occupational two-year degree is less rigorous, less credible, and less transferrable. The practice of deterring students from pursuing an AS degree in favor of a liberal arts AA degree should be mitigated because of the new articulation policies and the proven success of such AS-to-BS programs, especially for

those students whom the AS is a more appropriate option. This study has revealed that the AS degree is viable for pursuing a lucrative career, and many of the technical and occupational specialties are projected to be in high demand across the workforce well into the future. To affect these changes in attitude and practice, educational leaders, faculty, staff, counselors and advisors must be informed of the AS-to-BS transfer opportunities and apprised of their contemporary value.

Legislative motivations to improve articulation policies for the K-20 “seamless” education system have encountered obstacles from the traditional mindsets of faculty, institutional leaders, and accrediting agencies. As Kasworm (1990) pointed out, there have been questions regarding the legitimacy of adults participating in undergraduate studies, and Boyer (1974) argued that higher education has historically perceived adult students as misfits or retreads in a kind of salvage operation.

Kasworm further recognized that some higher education leaders argue that these adult students have already had their chance and passed it up. According to Kasworm, early studies of adult students viewed them as an “image of implied deficiency” where the studies focused on examining adult students’ inferiority or their age as limiting factors to their cognitive performance (Kasworm, 1990).

It has taken us a very long time to make this degree of progress where we recognize that a two-year technical/occupational degree is worthy for transfer and credible for two years of higher education applicable toward the four-year baccalaureate. This study has provided evidence that the creation of the BSAS program was the right thing to do. It may also support the notion that further articulation of the two-year

Associate in Applied Science (AAS) as well as other community college coursework not currently recognized for transfer credit may be warranted.

Recommendations for Further Research

During the course of this study, the author found that there were few sources and many gaps in the existing body of research studying two-year technical and occupational transfer students. This is understandable, because the movement to create more standardized transfer processes and expanded articulation for these students is a relatively new phenomenon. Most of the prior research on nontraditional and adult students has focused on those who were entering or re-entering college to pursue a traditional college path for a traditional college degree. In contrast, AS-to-BS transfer students are coming to the university with technical/occupational AS/AAS degrees as nontraditional students pursuing a nontraditional path to a nontraditional degree.

This study provided an analysis of the BSAS student population at a single university. The research topic was thoroughly investigated and the analyses resulted in a rich and comprehensive description of this unique student population. The results of this study, however, left many unanswered questions about the nature of these students, policies and practices relating to these students, seamless education systems, and future workforce implications. The following relevant topics were beyond the purview of this study, but they are fertile areas for future research:

1. An area warranting further research on this technical/occupational transfer student population, is the success of students transferring from vastly different AS/AAS degree programs. Is the content of one AS degree/program better preparation for university-level studies than another? Are students in the differing academic areas

of study at the community college more likely to succeed than those from other disciplines? For instance, should we expect a student with an AS degree in Information Technology to be better prepared for university-level curriculum than a student with an AS degree in Early Childhood Development? Do students with an AS degree in Business Administration outperform students with an AS degree in Radiography? Or is content and subject matter of a students' two-year program irrelevant to their success at the university? There is a potential socio-cultural aspect to academic subject matter that could create distinct student populations within the general AS student population that unintentionally aligns students with classmates, occupational peer groups, or work environments. As much of the research on social-cognitive development reveals, the environment in which one exists plays an important role in his or her human development (Dewey, 1897; Bandura, 1977; Vygotsky, 1978; and Bruner, 1996).

2. As outlined in this study, many BSAS students recognized that their maturity was a contributing factor to their current academic success. A student's level of maturity is a certain determinant to their ability to cope well with the stresses of college, and the cumulative life experiences of an adult can contribute to their increased social-cognitive abilities (Tawney, 1920; Lindeman, 1926; Dewey, 1938; Rogers, 1969; Cross, 1981; and Knowles, 1984). An aspect of maturity as it relates to academic ability is the level or degree of maturity. In higher education we classify the adult, nontraditional student at a specific threshold such as 24 years of age or older. In the case of the BSAS student population in this study, that would leave an age range of 24 to 63 years of age. An interesting study would

be the analysis of “levels” of maturity associated with academic success. Do 35 year old students perform better than 25 or 45 year old students? Is there a significant difference or a correlation between ages (or age groups) and academic success? Is there a point where one actually becomes too old and set in his or her ways to successfully integrate into the university?

3. According to George Kuh and others, student engagement is a mutual arrangement between the student and their institution. The student component is generally a measure of the time and effort put forth toward their studies and other activities to achieve academic success. The institutional component is assessed by the way it allocates resources and arranges opportunities for students to participate in the educational processes (Kuh, et. al., 2005, pg. 9). This study revealed that the BSAS students are, in fact, applying themselves sufficiently to the demands of the curriculum, but they are not engaged in other academically enriching activities, nor are they creating bonds with their faculty, their peers or the university. No doubt, their disengagement with the university is partly due to their extensive work and family obligations, but I believe the university could do more to create an environment that accommodates and encourages active-collaborative learning and participation for the adult, nontraditional students which comprise a large portion of the student body. A worthwhile area of research would be an examination of university programs designed specifically for their adult populations. Potential areas of inquiry are: Does the university equally value their nontraditional and traditional student populations? Are there any university programs and services dedicated to the schedules of nontraditional/adult students?

What co-curricular and extracurricular activities are specifically geared to the adult/nontraditional students? Does the university create an active-collaborative learning environment for full-time working adults? Does the university encourage student-faculty interaction beyond the classroom or provide the space and forums to bring them together? I suspect that the study of institutional practices, resources and actual efforts put forth toward adult/nontraditional student engagement may reveal an inconvenient truth.

4. Issues of transfer and articulation continue to garner more attention by legislators, higher education policy-makers and institutional practitioners. More emphasis is being given to acceleration mechanisms to move citizens through P-16/K-20 systems more credit-wise efficiently, more rapidly, and more cost effectively.

In the last decade, legislatures have encouraged inter-institutional and statewide articulation agreements that provide efficient transfer of AS/AAS degrees to the baccalaureate. This trend will continue to gain steam as more states realize the positive, long-term impacts that these AS-to-BS graduates can have on workforce development and the economy. Debra Bragg (2001) notes that our changing economy has resulted in the proliferation of jobs at the subbaccalaureate level requiring a skill set much different than the vocational jobs of the past. These jobs offer substantial salaries because they require greater technical, analytical and problem solving ability. As the two-year technical and occupational programs are more broadly recognized for efficient transfer to the universities, there will be a greater demand at the front end. The majority of AS degree holders who have recently transferred into AS-to-BS degree programs did not begin their AS degree

with the intention of immediate transfer - they earned the AS, went to work, and later realized the need for a bachelor's degree. New students, however, are entering AS degree programs with the knowledge that they can immediately transfer, and in this new economy we might expect that they will begin doing so in much greater numbers. Future research on transfer and articulation policy and practice should focus first on states' economic, workforce and educational demands to ensure seamless educational systems provide efficient pathways to the education needed by its students, workers, and citizens. Why are certain rigorous curricula/programs at the community college still not recognized for transfer? Should community colleges continue to offer two-year degrees that aren't recognized as credible two-years of college by the universities? Are regional accrediting bodies preventing the efficient transfer of technical and occupational degrees? Should legislatures and educational governing bodies mandate statewide articulation of all publicly supported higher education? In the case of the BSAS degree, it may not exist today in Florida without the aggressive legislative actions that took place in 1998.

5. An emerging issue for AS-to-BS transfer programs is the awarding of the baccalaureate degree by community colleges. This topic relates to the previous topic in as much as it is a function of statewide articulation policy, but the more focused and interesting issue is that of a 2+2 program within the same institution without any "real" transfer or migration of students. This vertical extension of community colleges is the result of several institutional, geographic, demographic and legislative factors that will not be addressed here, but it is sufficient to note

that community colleges will probably continue to pursue new AS-to-BS options that meet the immediate needs of their communities and the workforce. Relevant research questions to consider are: What are the differences between AS-to-BS degree programs at the community college and the university? Are AS-to-BS transfer student characteristics similar or different between the community college and the university? Are students transferring with an AS from one community college to a baccalaureate program at another community college? Should AS-to-BS programs at the community college be limited to career-ladder degree programs? Should AS-to-BS programs at the university be limited to inverted capstone degree programs? Should students who have earned the AS degree be required to have a certain number of years in the workforce prior to being permitted to enter a career-ladder or inverted capstone baccalaureate program? If a level of maturity is deemed as a requisite for AS degree holders to be successful in baccalaureate programs, what is the optimum age for admission to such programs? Transfer admission policies, articulation policies, AS-to-BS program designs, limitations by accrediting bodies, limitations of resources, and the emergence of the community college baccalaureate degrees are all fertile areas for future research.

Summary Statement

The preponderance of existing sources analyzing student success have relied upon quantitative data about students' academic performance, attendance patterns and degree attainment, but few studies have examined the social, cultural or psychological variables that contribute to student success. Even fewer studies have focused on the qualitative

issues pertinent to adult/nontraditional student success. This study asked students to delve into their backgrounds and mindsets by asking them to reflect upon their past educational experiences to provide a rich and comprehensive qualitative description of who they are. Because the quantitative analyses “cannot provide full accounts of attitudes, beliefs, peer groups, mentoring or counseling, or social activities that may have played significant roles in the drama of their [pathway to] adulthood” (Adelman, 2005, p.1).

This study has purposely and earnestly examined BSAS students’ perceptions about their educational experiences through a more qualitative lens to comprehensively analyze and describe their characteristics, engagement and performance. The results of this research offer greater insight to this relatively new and unique population of undergraduate students at the university. The information contained herein is valuable to educational leaders and policy-makers as they consider future transfer and articulation policies and practices for these worthy students.

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Appendices

Appendix A

Florida Law, Statewide AS – BS Articulation and Administrative Rules

Excerpt: Florida Statute - 1007.23 Statewide Articulation Agreement

(1) The State Board of Education shall establish in rule a statewide articulation agreement that governs:

- (a) Articulation between secondary and postsecondary education;
- (b) Admission of associate in arts degree graduates from community colleges and state universities;
- (c) Admission of applied technology diploma program graduates from community colleges or career centers;
- (d) Admission of associate in science degree and associate in applied science degree graduates from community colleges;
- (e) The use of acceleration mechanisms, including nationally standardized examinations through which students may earn credit;
- (f) General education requirements and statewide course numbers as provided for in ss. 1007.24 and 1007.25; and
- (g) Articulation among programs in nursing.

(2) The articulation agreement must specifically provide that every associate in arts graduate of a community college shall have met all general education requirements and must be granted admission to the upper division of a state university except to a limited access or teacher certification program or a major program requiring an audition. After admission has been granted to students under provisions of this section and to university students who have successfully completed 60 credit hours of coursework, including 36 hours of general education, and met the requirements of s. 1008.29, admission shall be granted to state university and community college students who have successfully completed 60 credit hours of work, including 36 hours of general education. Community college associate in arts graduates shall receive priority for admission to a state university over out-of-state students. Orientation programs and student handbooks provided to freshman enrollees and transfer students at state universities must include an explanation of this provision of the articulation agreement.

Appendix A (Continued)

(3) The articulation agreement must guarantee the statewide articulation of appropriate workforce development programs and courses between school districts and community colleges and specifically provide that every applied technology diploma graduate must be granted the same amount of credit upon admission to an associate in science degree or associate in applied science degree program unless it is a limited access program. Preference for admission must be given to graduates who are residents of Florida.

(4) The articulation agreement must guarantee the statewide articulation of appropriate courses within associate in science degree programs to baccalaureate degree programs. Courses within an associate in applied science degree program may articulate into a baccalaureate degree program on an individual or block basis as authorized in local interinstitutional articulation agreements.

(5) The articulation agreement must guarantee the articulation of 9 credit hours toward a postsecondary degree in early childhood education for programs approved by the State Board of Education which:

(a) Award a child development associate credential issued by the National Credentialing Program of the Council for Professional Recognition or award a credential approved under s. 1002.55(3)(c)1.b. or s. 402.305(3)(c) as being equivalent to the child development associate credential; and

(b) Include training in emergent literacy which meets or exceeds the minimum standards for training courses for prekindergarten instructors of the Voluntary Prekindergarten Education Program in s. 1002.59.

History.--s. 348, ch. 2002-387; s. 105, ch. 2004-357; s. 15, ch. 2004-484.

Excerpt: State Board of Education, Administrative Rule (AS to BS)

6A-10.024 Articulation Between and Among Universities, Community Colleges, and School Districts. It is the intent of the Board of Governors and the State Board of Education to facilitate articulation and seamless integration of the education system by agreeing to the provisions of this rule. The authority to adopt and amend this rule aligns with the Constitutional power given the Board of Governors for the state university system and the statutory authority given the State Board of Education for the district school boards, the community college system, and the Department of Education.

5) Associate in Science (A.S.) Degree. The associate in science degree is the career education degree of the community colleges. It is a two-year degree intended to prepare students for the workforce.

(a) The associate in science degree shall be awarded upon:

Appendix A (Continued)

1. Completion of the minimum number of semester hours of college credit courses in an established program of study as required in Rule 6A-14.030(2), FAC.,
 2. Completion of a minimum of fifteen (15) semester hours in the general education core curriculum in the subject areas of communication, mathematics, social sciences, humanities, and natural sciences which meet the Southern Association of College and Schools Commission on Colleges criteria. English and math courses must meet the requirements adopted by the State Board of Education in Rule 6A-10.030, FAC and the Board of Governors. No physical education credit will be included in the general education block of credit.
 3. General education courses not taught in accordance with the Southern Association of Colleges and Schools Commission on Colleges criteria for programs designed for college transfer shall not be included in the associate in science degree.
- (b) Appropriate courses within associate in science degree programs will articulate to baccalaureate degree programs.
1. Achievement of the minimum standards adopted by the State Board of Education in Rule 6A-10.0312, FAC. and the Board of Governors, will be required by the time the student earns 36 semester hours at the senior institution in upper division work.
 2. Completion of common prerequisites will be required for the baccalaureate degree or as otherwise outlined in program-specific statewide agreements.
 3. Courses taken as part of the associate in science degree to meet the general education requirements will transfer and apply toward the 36 credit hours required for the baccalaureate degree. No additional general education credit hours can be required except to complete the total 36 general education hours.
- (c) Capstone Degree Articulation Agreement. A capstone agreement that is entered into by a specific public or private postsecondary institution provides for the acceptance of a specific associate in science degree from any Florida community college and applies it as a block of credit toward a specified baccalaureate degree. The quality and content of the associate in science degree is respected as the technical component of the baccalaureate degree and the remainder of the program is designed to complete general education requirements and provide management skills to assist in job progression. Every associate in science degree graduate of a Florida community college program that articulates with a capstone degree program in a specific Florida public or private postsecondary institution shall be guaranteed admission to that program except for limited access programs and those requiring specific grades on particular courses for admission. All associate in science degree graduates who articulate under the capstone agreement shall be treated equally, regardless of the community colleges from which they receive their degrees. The

Appendix A (Continued)

general education component of the associate in science degree shall be accepted in total as a portion of the general education requirement upon transfer to the capstone program in a specific Florida public or private postsecondary institution.

(d) Career Ladder Degree Articulation Agreement. The Career Ladder agreement integrates specific associate in science degree programs with identified baccalaureate degree programs statewide. Each associate in science degree program must meet specific requirements as prescribed in the agreement and public postsecondary institutions are required to honor the transfer of credit toward the specified baccalaureate degree. Graduates of a Florida community college associate in science degree program with an agreement that is documented and maintained by the Articulation Coordinating Committee shall be granted admission to a public postsecondary institution in the program designated to articulate with their degree, except for limited access programs and those requiring specific grades on particular courses for admission. Admission to the student's preferred public postsecondary institution is not guaranteed. Each State University System institution shall develop admissions criteria to ensure that associate in science degree students are evaluated on an equal basis with associate in arts degree graduates and native university students for admission into Career Ladder programs designated as limited access and those requiring specific grades on particular courses for admission.

1. The associate in science degree shall be awarded based on all of the requirements contained in subsection (5)(a) of this rule and in accordance with the articulation agreement provisions maintained by the Articulation Coordinating Committee.
2. The statewide associate in science to baccalaureate degree program articulation agreements between public postsecondary institutions shall be documented and maintained by the Articulation Coordinating Committee. The Department of Education, in consultation with institutions, shall review periodically, as necessary, but no more than once a year, the provisions of the state articulation agreements and the prescribed curricula to ensure the continued effectiveness of the articulation between the A.S. and B.A./B.S. programs. Any recommendations for revisions to the state articulation agreements will be forwarded to the Articulation Coordinating Committee for review. The revisions may be approved after the Board of Governors and the State Board of Education make independent determinations that the recommended revisions are consistent with board policies.

Source: The Florida Senate at www.flsenate.gov

Appendix B

USF Bachelor of Science in Applied Science (BSAS) Degree Program

A Bachelor's degree program designed specifically for Associate in Science (A.S.) degree graduates from a Florida public community college.

The BSAS degree is designed to serve Florida's A.S. graduates who desire a bachelor's degree for self-enrichment, advancement in their current career or to qualify for higher-level employment in other settings. A.S. graduates looking for a flexible Bachelor's degree program will find the BSAS degree recognizes the value of academic work already completed, and requires only 60 additional credit hours beyond the A.S. degree.

Students admitted to the BSAS will have an A.S. degree from a public Florida community college and will have completed a minimum of 18 credit hours of transferable General Education coursework, which should include writing and math courses that meet Gordon Rule requirements.

The A.S. degree will transfer as a complete "60 credit hour package" to USF (applicable only to the BSAS program). Technical coursework will transfer as a 42 credit hour technical block. The remaining 18 credit hours of General Education coursework from the A.S. will be matched against USF requirements to determine which courses remain outstanding for the fulfillment of the University's 36 credit hour General Education requirement.

Summary of the Four-Year BSAS Program:

Community College General Education (Transferred from A.S.)	18
Community College Block Credit (Transferred from A.S.)	42
<u>USF General Education</u>	18
<u>USF Exit Courses</u>	9
USF Area of Concentration	18
USF Electives	15
Total BSAS Credit Hours	120

Within the above 60 credit hours beyond the A.S., BSAS students will complete:

- a minimum of 48 credit hours of upper-level (3000-4000) courses
- at least 30 hours of the last 60 credit hours at USF
- CLAST requirements
- foreign language requirement (can be satisfied by two years of high school foreign language credit or 8 college credit hours in a single foreign language)

Appendix B (Continued).

Areas of Concentration: American Sign Language, Behavioral Healthcare, Criminal Justice, Early Child Development, Environmental Policy, General Business, Gerontology, Hospitality Management, Industrial Operations, Information Technology, Public Administration, Public Health, and Urban Studies

Source: <http://www.ugs.usf.edu/bsas.htm>

Appendix C

BSAS Transfer Student Survey

Measurement Legend:

- FMS = Frequency, Mean and Standard Deviation (descriptive)
- COR = Comparison of Responses (analytical)
- MED = Median (descriptive)
- CAT = Categorization (descriptive)

GENERAL DEMOGRAPHIC & ACADEMIC INFORMATION

Please respond to the following questions as accurately as possible:

1. What is your marital status? (FMS)
 - Married
 - Single
2. How many children to you have? (FMS)
 - none
 - 1
 - 2
 - 3
 - 4
 - 5 or more
3. What is your estimated annual household income? \$_____ (MED)
4. How would you assess your current socioeconomic status? (CAT)
5. Are you the first person in your family (parents/siblings) to attend college? (FMS)
 - Yes
 - No
6. What is your father's education level? (FMS)
 - less than h.s. diploma
 - h.s. diploma
 - Associate's
 - Bachelor's
 - Master's
 - Doctorate
7. What is your mother's education level? (FMS)
 - less than h.s. diploma
 - h.s. diploma
 - Associate's
 - Bachelor's
 - Master's
 - Doctorate
8. What is your spouse's education level? (FMS)
 - less than h.s. diploma
 - h.s. diploma
 - Associate's
 - Bachelor's
 - Master's
 - Doctorate
9. What is/was your father's occupation? (CAT)
10. What is/was your mother's occupation? (CAT)

Appendix C (Continued)

11. Are you currently working? (FMS)
 Yes No
- If yes,
12. Are you working in an occupation related to your associate's degree? (FMS)
 Yes No
13. How many hours do you work per week? ___# hours (FMS) (MED)
14. How long is your commute from home to work? ___# minutes (FMS) (MED)
15. How would you describe your overall past attitude toward higher education?
(narrative) (CAT)
16. How would you describe your current attitude toward higher education? (narrative)
(CAT)
17. I am competent and capable in college-level math. (FMS)
 strongly disagree disagree neither agree/disagree agree strongly agree
18. I am competent and capable in college-level English composition. (FMS)
 strongly disagree disagree neither agree/disagree agree strongly agree
19. I am confident in my college-level communication skills. (FMS)
 strongly disagree disagree neither agree/disagree agree strongly agree
20. I am confident in my college-level reading skills. (FMS)
 strongly disagree disagree neither agree/disagree agree strongly agree
21. I understand and communicate in a Foreign language. (FMS)
 strongly disagree disagree neither agree/disagree agree strongly agree

HIGH SCHOOL REFLECTIONS

Reflect upon your high school experience for the following questions:

22. What was your estimated high school grade point average? (FMS)
23. What is your general assessment of high school experience? (narrative) (CAT)
24. What occupation(s) did you intend to pursue while in high school? (narrative) (CAT)
25. I was generally pleased with the high school I attended. (FMS) (COR 25,47,79)
 strongly disagree disagree neither agree/disagree agree strongly agree

Appendix C (Continued)

26. My high school curriculum was relevant to my personal goals. (FMS) (COR 26,48,80)
strongly disagree disagree neither agree/disagree agree strongly agree
27. I had a good relationship with my high school faculty. (FMS) (COR 27,49,81)
strongly disagree disagree neither agree/disagree agree strongly agree
28. I had a good relationship with my high school peers. (FMS) (COR 28,50,82)
strongly disagree disagree neither agree/disagree agree strongly agree
29. I regularly engaged in high school institutional/extracurricular activities. (FMS) (COR 29,51,83)
strongly disagree disagree neither agree/disagree agree strongly agree
30. What factors contributed to your performance in high school? (narrative) (CAT)
31. I performed well academically in high school. (FMS) (COR 31,58,88)
strongly disagree disagree neither agree/disagree agree strongly agree
32. I am satisfied with my academic performance in high school. (FMS) (COR 32,59,89)
strongly disagree disagree neither agree/disagree agree strongly agree
33. I put forth a significant effort in high school. (FMS) (COR 33,60,90)
strongly disagree disagree neither agree/disagree agree strongly agree
34. Did you engage in peer study or study groups in high school? (FMS) (COR 34,61,91)
 Yes No
35. My interaction with high school counselors/academic advisors was adequate. (FMS) (COR 35,62,92)
strongly disagree disagree neither agree/disagree agree strongly agree
36. I routinely interact(ed) with high school faculty beyond classroom requirements. (FMS) (COR 36,63,93)
strongly disagree disagree neither agree/disagree agree strongly agree
37. I conscientiously completed high school reading and homework assignments. (FMS) (COR 37,64,94)
strongly disagree disagree neither agree/disagree agree strongly agree
38. I felt capable of performing in the academic setting of high school. (FMS) (COR 38,65,96)
strongly disagree disagree neither agree/disagree agree strongly agree

Appendix C (Continued)

39. I was competent in using library resources for research in high school. (FMS) (COR 39,66,97)

- strongly disagree disagree neither agree/disagree agree strongly agree

COMMUNITY COLLEGE REFLECTIONS

Reflect upon your community college experience for the following questions:

40. What was your estimated community college grade point average? (FMS)

41. What is your self-assessment of your community college environment? (narrative) (CAT)

42. Why did you choose to attend a community college? (narrative) (CAT)

43. How many credits hours per semester did you normally take in community college? ___ hours (FMS) (MED)

44. At what age did you began pursuing your associate's degree? ___# years (FMS) (MED)

45. At what age did you complete your associate's degree? ___# years (FMS) (MED)

46. What occupation(s) did you intend to pursue while in community college? (narrative) (CAT)

47. I was generally pleased with the community college I attended. (FMS) (COR 25,47,79)

- strongly disagree disagree neither agree/disagree agree strongly agree

48. My community college curriculum was relevant to my personal goals. (FMS) (COR 26,48,80)

- strongly disagree disagree neither agree/disagree agree strongly agree

49. I had a good relationship with my community college faculty. (FMS) (COR 27,49,81)

- strongly disagree disagree neither agree/disagree agree strongly agree

50. I had a good relationship with my community college peers. (FMS) (COR 28,50,82)

- strongly disagree disagree neither agree/disagree agree strongly agree

51. I regularly engaged in community college institutional/extracurricular activities. (FMS) (COR 29,51,83)

- strongly disagree disagree neither agree/disagree agree strongly agree

Appendix C (Continued)

52. What factors contributed to your performance in community college? (narrative) (CAT)
53. My study habits were better in the community college than my study habits in high school. (FMS)
strongly disagree disagree neither agree/disagree agree strongly agree
54. I participated in remedial English courses at the community college. (FMS)
 Yes No
55. I participated in remedial Math courses at the community college. (FMS)
 Yes No
56. What motivated you to complete your associate's degree? (narrative) (CAT)
57. Who were your mentors/supporters for completing your associate's degree? (narrative) (CAT)
58. I performed well academically in community college. (FMS) (COR 31,58,88)
strongly disagree disagree neither agree/disagree agree strongly agree
59. I am satisfied with my academic performance at the community college. (FMS) (COR 32,59,89)
strongly disagree disagree neither agree/disagree agree strongly agree
60. I put forth a significant effort in community college. (FMS) (COR 33,60,90)
strongly disagree disagree neither agree/disagree agree strongly agree
61. Did you engage in peer study or study groups in community college? (FMS) (COR 34,61,91)
 Yes No
62. My interaction with community college academic advisors was adequate. (FMS) (COR 35,62,92)
strongly disagree disagree neither agree/disagree agree strongly agree
63. I routinely interacted with community college faculty beyond classroom requirements. (FMS) (COR 36,63,93)
strongly disagree disagree neither agree/disagree agree strongly agree

Appendix C (Continued)

64. I conscientiously completed community college reading and homework assignments. (FMS) (COR 37,64,94)

- strongly disagree disagree neither agree/disagree agree strongly agree

65. I felt capable of performing in the academic setting of the community college. (FMS) (COR 38,65,96)

- strongly disagree disagree neither agree/disagree agree strongly agree

66. I was competent in using library resources for research at the community college. (FMS) (COR 39,66,97)

- strongly disagree disagree neither agree/disagree agree strongly agree

UNIVERSITY REFLECTIONS

Reflect upon your university experience for the following questions:

67. At what age did you transfer to the university? ___# years (FMS) (MED)

68. What occupation(s) do/did you intend to pursue while in the university? (narrative) (CAT)

69. When do you normally attend university classes? (FMS)

- daytime evening both day and evening weekends online

70. How long is your commute to the university? ___# minutes (FMS) (MED)

71. Do you now attend more than one campus to take needed classes? (FMS)

- Yes No

72. Approximately, how many credits do you routinely take per semester at the university? ___# credit hours? (FMS) (MED)

73. Approximately, how many credit hours have you completed toward your bachelor's degree? ___# credit hours (FMS) (MED)

74. Approximately, how many hours per week do you spend on coursework or class assignments outside of class? ___# hours (FMS) (MED)

75. University courses are more difficult compared to those at the community college. (FMS)

- strongly disagree disagree neither agree/disagree agree strongly agree

76. Have you encountered any problems within the university? (narrative) (CAT)

Appendix C (Continued)

77. Have you had any outside conflicts with studying or attending school? (narrative) (CAT)
78. Why are you pursuing the BSAS degree? (narrative) (CAT)
79. I am generally pleased with the university I am attending/attended. (FMS) (COR 25,47,79)
strongly disagree disagree neither agree/disagree agree strongly agree
80. My university curriculum is/was relevant to my personal goals. (FMS) (COR 26,48,80)
strongly disagree disagree neither agree/disagree agree strongly agree
81. I have/had a good relationship with my university faculty. (FMS) (COR 27,49,81)
strongly disagree disagree neither agree/disagree agree strongly agree
82. I have/had a good relationship with my university peers. (FMS) (COR 28,50,82)
strongly disagree disagree neither agree/disagree agree strongly agree
83. I regularly engage(d) in university institutional/extracurricular activities. (FMS) (COR 29,51,83)
strongly disagree disagree neither agree/disagree agree strongly agree
84. What factors contribute(d) to your performance in the university? (narrative) (CAT)
85. My study habits in the university are/were better compared to my study habits in the community college. (FMS)
strongly disagree disagree neither agree/disagree agree strongly agree
86. What motivates/motivated you to complete your baccalaureate degree? (narrative) (CAT)
87. Who are/were your mentors/supporters for completing your BSAS degree? (narrative) (CAT)
88. I perform(ed) well academically at the university. (FMS) (COR 31,58,88)
strongly disagree disagree neither agree/disagree agree strongly agree
89. I am satisfied with my academic performance at the university. (FMS) (COR 32,59,89)
strongly disagree disagree neither agree/disagree agree strongly agree

Appendix C (Continued)

90. I put forth a significant effort in the university. (FMS) (COR 33,60,90)
strongly disagree disagree neither agree/disagree agree strongly agree

91. Do/did you engage in peer study or study groups at the university? (FMS) (COR 34,61,91)
 Yes No

92. My interaction with university counselors/academic advisors is/was adequate. (FMS) (COR 35,62,92)
strongly disagree disagree neither agree/disagree agree strongly agree

93. I routinely interact(ed) with university faculty beyond minimum classroom participation requirements. (FMS) (COR 36,63,93)
strongly disagree disagree neither agree/disagree agree strongly agree

94. I conscientiously complete(d) university reading and homework assignments. (FMS) (COR 37,64,94)
strongly disagree disagree neither agree/disagree agree strongly agree

95. From whom do you seek assistance with academic assignments (narrative) (CAT)

96. I feel/felt capable of performing in the academic setting of the university. (FMS) (COR 38,65,96)
strongly disagree disagree neither agree/disagree agree strongly agree

97. I am/was competent in using library resources for research at the university. (FMS) (COR 39,66,97)
strongly disagree disagree neither agree/disagree agree strongly agree

98. What is your anticipated grade point average upon graduation from the university? #___ (FMS)

99. Additional comments regarding past academic engagement. (narrative) (CAT)

100. Additional comments regarding current academic engagement (narrative). (CAT)

Appendix D

Career Ladder Agreements

List of Articulated Programs and Hours

The following Associate in Science degree programs shall articulate into a baccalaureate degree in the designate university programs under the provisions of Rule 6A-10.024 – Articulation Between Universities, Community Colleges, and School Districts and the career ladder agreements contained herein:

AS Degree Program	University Degree Program	Total Hours
Radiography CIP 1317020900	Radiologic Technology CIP 51.0907	132
Nursing CIP 1318110100	Nursing CIP 51.1601	128
Hospitality & Tourism Mgmt CIP 1206079900	Hospitality Admin/Mgmt in programs not accredited by AACSB CIP52.0901	124
Electronics Engineering Tech CIP 1615030301	Electronics Engineering Technology CIP 15.0303 Engineering Technology General CIP 15.1101 Track 2: Electrical	134
Business Administration CIP 1506040102	Business, General CIP 52.0101 Business Admin & Mgmt CIP 52.0201	132
Regionally Accredited AS Degree Programs	Bachelor of Science in Applied Science (BSAS) CIP 24.0105	120
Computer Engineering Tech CIP 1615040200	Information Systems Technology CIP 15.1202	134
Technology Education CIP 1924010100	Technology Teacher Education CIP 13.1320	129
Areas of Emphasis: Construction Tech Graphics Communication Tech Drafting and Design Tech Transportation Tech		
Criminal Justice Technology CIP 1734010300	Criminal Justice CIP 43.0104	130

Source: Office of K-20 Articulation, Division of Strategic Initiatives, Florida DOE

Appendix E

Email to Focus Group Participants

From: Collins, Jerry
Sent: Wednesday, July 25, 2007 11:57 AM
To: Collins, Jerry
Subject: BSAS Survey

Dear BSAS Student,

As partial fulfillment of my Ph.D. requirements, I am conducting a focus group to identify the characteristics, engagement and success of AS-BS transfer students.

The purpose and intent of this focus group is to discuss your experiences as a BSAS student and to help me refine a survey instrument that will be executed by the BSAS student population.

Your anonymity will be protected, and all information you provide in the focus group will be held in strict confidence. You will not be identified or associated with any information or responses provided in the focus group discussions, and your personal identity or participation will not be revealed to others.

The focus group is scheduled for Thursday, August 14, 2008 at 3:00pm and will last approximately one hour. Please respond to this email about your availability and willingness to participate in the focus group.

Sincerely,

Jerry C. Collins, Director
Undergraduate Studies
University of South Florida
4202 E. Fowler Ave, SVC2002
Tampa, FL 33620

Appendix F

Email to Survey Participants

From: Collins, Jerry
Sent: Wednesday, August 20, 2008 10:02 AM
To: Collins, Jerry
Subject: BSAS Survey

Dear BSAS Student,

As partial fulfillment of my Ph.D. requirements, I am conducting a survey which focuses on the student characteristics, engagement and success in the BSAS degree program.

Please click the below link to read the purpose and intent of the survey and to validate the Informed Consent form:

http://www.surveymonkey.com/MySurvey_EditorPage.aspx?sm=mUxW%2fTAKedTPH3J0vlgGwJKtSQAtADLy5925yNh1OhE%3d

Note that your anonymity will be protected, and all information you provide in this survey will be held in strict confidence. You will not be publicly identified or associated with any of the information or responses provided in this survey, and your personal identity will not ever be revealed to any other party.

Your participation is a very important step for gathering relevant information about BSAS students and the degree program. By completing this survey, you will contribute to the future advancement of BSAS transfer policies and articulation.

I greatly appreciate your time and effort to complete the survey.

Sincerely,

Jerry C. Collins, Director
Undergraduate Studies
University of South Florida
4202 E. Fowler Ave, SVC 2002
Tampa, FL 33620

Appendix G

Informed Consent

Informed Consent

Social and Behavioral Sciences
University of South Florida

Information for People Who Take Part in Research Studies

The following information is being presented to help you decide whether or not you want to take part in a minimal risk research study. Please read this carefully. If you do not understand anything, ask the person in charge of the study.

Title of Study: BSAS Transfer Student Survey

Principal Investigator: Jerry C. Collins

Study Location(s): USF College of Education

You are being asked to participate to provide information for dissertation research on characteristics, engagement and success of AS-to-BS transfer students which may be important to future institutional and statutory policy.

General Information about the Research Study

The purpose of this research study is to support a Ph.D. dissertation and provide information to about the population of AS occupational/vocational transfer students in the Bachelor of Science in Applied Science (BSAS) at the University of South Florida. Personal identity and private information obtained through this study will not be revealed to the public or any third party.

Plan of Study

Respondents will participate in a paper or online survey requiring scaled and narrative responses. The survey will take approximately 45 minutes to complete.

Payment for Participation

You will not be paid for your participation in this study.

Benefits of Being a Part of this Research Study

By taking part in this research study you will be providing important information that is of interest to many higher education administrators and policy makers. Your participation will provide valuable information to the public about unique aspects of the BSAS degree

Appendix G (Continued)

program, the BSAS student population which may impact possible future advancement of vocational/occupational transfer policies.

Risks of Being a Part of this Research Study

There are no anticipated risks for participation in this research study.

Confidentiality of Your Records

Individual Responses : Individual responses to the survey **will** be anonymous and coded to hide respondent's identity. The public **will not** be able to access a participant's responses.

Summary Results: The summary results of this study may be published in a journal format. If so, the data obtained from you will be combined with data from others completing the survey. The published summary results **will not** include your name or any other information that would personally identify you in any way.

Volunteering to Be Part of this Research Study

Your decision to participate in this research study is completely voluntary. You are free to participate in this research study or to withdraw at any time.

Questions and Contacts

- If you have any questions about this research study, contact Jerry C. Collins at (813) 974-0525.
- If you have questions about your rights as a person who is taking part in a research study, you may contact the Division of Research Compliance of the University of South Florida at (813) 974-5638.

Consent to Take Part in This Research Study

By participating in this study I agree that:

- I have fully read or have had read and explained to me this informed consent form describing this research project.
- I have had the opportunity to question one of the persons in charge of this research and have received satisfactory answers.
- I understand that I am being asked to participate in research. I understand the risks and benefits, and I freely give my consent to participate in the research project outlined in this form, under the conditions indicated in it.
- I have been given a signed copy of this informed consent form, which is mine to keep.

Appendix G (Continued)

Signature of Participant Printed Name of Participant _____
Date

Investigator Statement

I have carefully explained to the subject the nature of the above research study. I hereby certify that to the best of my knowledge the subject signing this consent form understands the nature, demands, risks, and benefits involved in participating in this study.

Signature of Investigator Jerry C. Collins _____
Printed Name of Investigator Date of authorized research

Investigator Statement:

I certify that participants have been provided with an informed consent form that has been approved by the University of South Florida's Institutional Review Board and that explains the nature, demands, risks, and benefits involved in participating in this study. I further certify that a phone number has been provided in the event of additional questions.

Signature of Investigator Jerry C. Collins _____
Printed Name of Investigator Date

Appendix H

High School Career Intentions of BSAS Students

BSAS students were asked to reflect about the career they had intended to pursue while in high school. The following alpha list shows distributions and percentages of responses from the surveyed population (n=164).

<u>Career</u>	<u>Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
accounting	6	3.7	3.7
actor	1	.6	4.3
architect	1	.6	4.9
artist	2	1.2	6.1
automotive technician	2	1.2	7.3
banking	1	.6	7.9
bartender	1	.6	8.5
business	3	1.8	10.4
cashier	1	.6	11.0
child care	1	.6	11.6
clerical	1	.6	12.2
computers	9	5.5	17.7
conservation	1	.6	18.3
cook	1	.6	18.9
cosmetology	2	1.2	20.1
dentist	1	.6	20.7
designer	1	.6	21.3
doctor	10	6.1	27.4
education	17	10.4	37.8
electronics	2	1.2	39.0
engineer	6	3.7	42.7
environmental	1	.6	43.3
farmer	1	.6	43.9
forest ranger	2	1.2	45.1
graphic artist	1	.6	45.7
hospitality	3	1.8	47.6
human resources	1	.6	48.2
journalism	4	2.4	50.6
law enforcement	5	3.0	53.7
lawyer	8	4.9	58.5
military	9	5.5	64.0
nursing	9	5.5	69.5
occupational therapist	1	.6	70.1
oceanography	1	.6	70.7
ophthalmologist	1	.6	71.3

Appendix H (continued)

<u>Career</u>	<u>Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
paralegal	1	.6	72.0
photographer	1	.6	72.6
physical therapy	3	1.8	74.4
psychology	1	.6	75.0
robotics	1	.6	75.6
scientist	2	1.2	76.8
secretary	1	.6	77.4
stock broker	2	1.2	78.7
unknown	30	18.3	97.0
veterinarian	3	1.8	98.8
waitress	1	.6	99.4
writer	1	.6	100.0

About the Author

Jerry Collins was drafted into the military in 1971, and subsequently spent the next 22 years in uniform. During his military career, he attended the Defense Language Institute in Monterey, CA on four separate occasions to learn Russian, Czech, Slovak, and Arabic. When not in school as a student, most of his military duty assignments were in intelligence schools as an instructor, curriculum developer, or training NCO. He completed his Bachelor's degree while on active duty.

Upon his military retirement in 1994, he attended the University of South Florida to earn a Master's degree in International Relations with clear intentions of re-entering government service to work for the Department of State, or Department of Defense.

While pursuing his Master's degree, however, he began working at the university helping adult and transfer students with their transition into the university, and found the university environment to be a very enjoyable place to work and a most rewarding endeavor. He now serves as the Director of Undergraduate Studies at the University of South Florida overseeing Community College Relations, Articulation, and Applied Science Programs, and serves as Chair of the Leadership Studies department.