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A STUDY OF UTAH'S NEW CENTURY SCHOLARSHIP (NCS) PROGRAM

by

Christine Kearn

A dissertation submitted in partial fulfillment
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Education
(Curriculum and Instruction)

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2012

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ABSTRACT

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Christine Kearn, Doctor of Philosophy

Utah State University, 2012

Co-Major Professors: Deborah Byrnes, Ph. D. ; Cathy Maahs-Fladung, Ph. D.
Department: School of Teacher Education and Leadership

This was a study about the New Century Scholarship (NCS) program offered to Utah high school students at commencement for earning an AA degree by the time they graduate from high school. The scholarship paid 75% of the remaining 2 years of tuition over a 5-year period. The goal of the program was to assist students to bachelor degree completion faster than the traditional time.

This program has been in Utah for the past 20 years, but no information about the program exists. Annually, the cost to taxpayers is approximately \$2 million. This study was conducted to determine if the NCS expedites bachelor degree completion and if so what variables on the career pathway assisted toward quicker completion.

Spring of 2012 the Utah System of Higher Education sent 613 surveys to graduates from the three cohort groups of high school graduates earning the NCS in 2004-2006. The response rate was 56%— high enough to generalize results.

Descriptive data, statistical analysis, and multiple-regression tests were run on the

data. The most significant discovery was the fact that the NCS does expedite bachelor degree completion for both males and females with an average time to completion of 3.57 years. Another important finding was the rate of completion with a bachelor degree at 83%. The variables that were significant in expediting graduation for the scholarship recipients were gender, major, and college selection. Variables such as ratings of high school counseling, GPA, and financial need were not significant predictors of time to graduation.

The workforce of the future will need to have more education than ever. In order to meet these demands Utah has a goal of 66% of the adult population ages 20-64 earning a postsecondary certificate or degree by 2020. The NCS program was successful in expediting graduation and the NCS recipients had a higher than average college graduation rate. It is one way Utah and perhaps other states can help students to gain faster access to a degree in higher education.

(164 pages)

PUBLIC ABSTRACT

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This program has been in Utah for the past 20 years, but little to no information about the program exists. Annually, the cost to taxpayers is approximately \$2 million dollars. This study was conducted to determine if the NCS expedites bachelor degree completion and if so for whom, and what variables on the career pathway assisted toward quicker completion.

The Utah System of Higher Education emailed and mailed 613 surveys to graduates from the three cohort groups of high school graduates earning the NCS from 2004-2006. The response rate was 56%. This response rate was high enough to generalize results.

Descriptive data, statistical analysis, and multiple-regression tests were run on the data. Perhaps, the most significant discovery was the fact that the NCS does expedite bachelor degree completion for both males and females with time to completion of 3.57 years on average. The significant variables in this study were: gender, choice of college major, and college selection. Females did complete their degree earlier than males by half a year and females tended to major in art, social science, and education, while males were more likely to major in business and STEM. Students could also graduate at least 1 year earlier depending on the college or university they selected to attend.

Another very important finding was the rate of completion with a bachelor degree. Eighty-three percent of the recipients who responded to the survey had completed their bachelor's degree. For this group of respondents, the matriculation rate from high school graduation to college was 100%.

Using multiple-regressions analysis, several additional variables were identified that expedited bachelor degree completion for these scholarship recipients. These variables were attending school full time, enrolling in and attending only one college, and the acceptance of the AA courses the student had completed by the college toward their bachelor degree. Variables such as quality of counseling, GPA, finances, and other life circumstances, with the exception of religious service were not significant in this study.

The workforce of the future will need to have more education than ever. In order to meet these demands Utah has a goal of 66% of the adult population ages 20-64 earning a postsecondary certificate or degree by 2020. The NCS program was successful in expediting graduation and the NCS recipients had a higher than average college graduation rate. It is one way Utah and perhaps other states can help students to gain faster access to a degree in higher education.

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I have dedicated this dissertation to my dear mother who instilled a love for learning as a child, and my father who took me to my first Utah State University basketball game at the age of 6 in the George Nelson Field House. I fell in love with USU and have been a fan ever since; completing my dissertation at USU has been a lifelong dream.

Christine Kearl

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CHAPTER I

INTRODUCTION

Concurrent enrollment programs and the New Century Scholarship (NCS) were first introduced in Utah in the mid-1990s. Under the leadership of Governor Mike Leavitt, legislation was passed in 1994 creating concurrent enrollment programs and NCSs for all Utah high school students (Utah Code 53A-15-101). Concurrent enrollment is a program that allows high school students to simultaneously earn college or vocational credit toward a postsecondary diploma, certificate, or degree at a Utah public institution of higher education and credit toward a high school diploma. High school students completing an Associate of Arts (AA) degree through concurrent enrollment are awarded, after application, the NCS. The NCS originally paid 75% of the remaining 2 years of college tuition at any higher education campus in Utah. In 2010, legislation changed the scholarship amount and capped it at \$5,000. A student with a NCS has 5 years to complete the remaining 2 years for a bachelor degree (Utah Code 53B-8-105). Extension waivers may be applied for through the Utah Systems of Higher Education (USHE).

Background and Significance

For most Utah students, concurrent enrollment courses are college or university classes taught predominately in the high school by high school teachers that have met hiring requirements for college and university adjunct faculty. Students register for the classes at both the high school and the college or university and a college transcript is generated. In order for a student to receive concurrent credit, the class must be listed in

the master list of courses (Utah State Office of Education [USOE], 2010). Course syllabi, text, tests, and requirements are the same at the high school campus as they are on the college/university campus. A great advantage for Utah high school students is they do not pay tuition. The Utah legislature annually funds concurrent enrollment at approximately \$50 per credit hour. Concurrent enrollment classes are generally taken by 11th- and 12th-grade students after having met college entry requirements.

Concurrent enrollment classes and the NCS offer advantages to high school campuses, colleges, students and families. The program has been offered formally in Utah for 18 years and has been embraced by both parents and students. While concurrent enrollment courses offer many advantages to students, parents, and the State, the advantages to colleges maybe significant as well. The following are advantages of concurrent enrollment policy that are frequently mentioned in the literature specific to the Utah program as well as to concurrent programs generally (Adelman, 2006; Hoffman, Vargas, Venezia, & Miller, 2007; USOE, 2010; USHE, 2010a),

- Concurrent enrollment courses provide a rigorous course of study, especially to students that are highly motivated or want to accelerate their college experience;
- Concurrent enrollment courses, offered online or via a broadcast system, provide a wider array of courses for high school students, especially in rural and remote locations where staffing is very limited;
- Concurrent enrollment expedites the college experience;
- Participation in concurrent enrollment saves families time and money that

normally would have been spent on college tuition;

- Concurrent enrollment credit is transferable in Utah from one higher education institute to another;
- Concurrent enrollment in Utah is a guarantee of college credit whereas, advanced placement and international baccalaureate courses do not always transfer for college credit;
- Concurrent enrollment faculty and teachers must meet the Utah System of Higher Education criteria for content expertise, thus providing credentials certifying greater content expertise;
- Concurrent enrollment gives students an understanding of college level course work while still in high school;
- Concurrent enrollment taught on the high school campus provides a safety net for students to be successful while taking college level courses;
- The more concurrent enrollment courses taken by a student the greater the chances are that the student will graduate from college.

While there is strong support for concurrent enrollment policy from the public education side of the equation, not all in higher education are supportive. Questions raised by higher education administrators and researchers are listed below (Adelman, 2006; Hoffman et al., 2007; USOE, 2010; USHE, 2010a):

- Is there a loss of revenue in offering credit at a reduced price?
- Is the rigor of the concurrent enrollment classes on the high school campus equal to the rigor on the college campus?

- Are faculty on the high school campus prepared and are they receiving the professional development and mentoring consistent with being college faculty members?
- Are students receiving the necessary counseling for smooth transitions to the college campus?
- Are students enrolled in concurrent enrollment completing their college education prior to their peers that did not participate in concurrent enrollment classes?

In the school year 2010-11 the number of participating concurrent enrollment students in Utah high schools was 26,170, with a total of 185,881 credits earned (USOE, 2010). Ninety-five percent of students enrolled in concurrent enrollment courses successfully completed their courses (USOE, 2010). Annually, a high percentage of students, 41% only take one concurrent enrollment course per year (USOE, 2010). Only 3% of students take eight courses or more (USOE, 2010).

Last year, over 1,500 NCSs were awarded (USHE, 2010b). In the year 2000 only 13 were awarded. While the number of NCS recipients has grown tremendously, questions about concurrent enrollment and the value of the scholarship have not been explored.

Problem Statement and Purpose

Utah's investment in the concurrent enrollment and NCS has been significant. Annually, the average cost to Utah taxpayers is approximately \$10 million to fund the

program, with two thirds of the funding going to public education and one third to higher education (Utah Code 53A-15-101). The cost of the NCS participation has increased over the past 18 years and costs taxpayers approximately \$2 million annually to fund scholarships (USHE, 2010a). This kind of investment warrants strict scrutiny. Students enrolled in the program should know they are receiving the preparation necessary to be successful at the next level in their educational career. If this is not occurring a disservice is being done to the students in their college preparation and taxpayer dollars are being wasted (Adelman, 2006).

Utah has invested a great deal of time and resources in the concurrent enrollment program and NCS. Discussions still persist on the effectiveness and efficiency of the program. Central to this discussion was the question of whether or not the scholarship assists students in graduating earlier. Research on dual enrollment programs suggests that students participating in a rigorous high school experience that includes college credit courses have greater retention, persistence and graduation rates (Adelman, 1999; Swanson, 2008). Earning college credit in high school assists students with getting a jump start on their college education. NCS students graduate high school with two years of college paying no tuition. This is similar to receiving a 2-year college scholarship. Theoretically, students who continue on with their higher education would graduate from college in 2 years putting them in the work force at the early age of 20 or 21.

Early graduation from college allows students to exit the system sooner with a degree and become gainfully employed, thus supporting the current tax base and contributing back to society. The student benefits from early graduation and the state

benefits from early graduation. Whether this is actually occurring in the State of Utah was unknown. This dissertation looked at the college experience of NCS recipients.

The purpose of this dissertation was to follow up with NCS graduates and document their career pathways and time to college completion. This dissertation was a statewide study of the of Utah high school students from 2004-2006 who graduated from high school with an associate's degree and qualified for the NCS. It describes what career pathway, college major, college choice and life circumstances occurred to those students receiving the NCS in terms of educational and professional outcomes. Findings inform state leaders as to the merits and/or problems of the NCS Program.

Research Questions

This study addressed the following questions.

1. Did the NCS expedite college graduation?
2. What life circumstances (i.e., financial, service, family, or health) were related to college graduation timing of NCS recipients?
3. Was the choice of major related to college graduation timing of NCS recipients?
4. Was the choice of college institution selected related to college graduation timing of NCS recipients?
5. Was the quality of high school advisement related to college graduation timing of NCS recipients?
6. Was grade point average (GPA) related to college graduation timing of NCS

recipients?

7. Was gender related to college graduation timing of NCS recipients?
8. Was ethnicity related to college graduation timing of NCS recipients?
9. What variables most influenced college graduation timing?

This study provided descriptive data regarding NCS recipient's experiences as well as findings regarding the relationship between several independent variables and the dependent variable, time to graduation. Legislators, the Governor, and other policy makers are very interested in the outcomes of the bivariate analysis as it will inform them as to which variables tend to expedite college completion and which variables tend to prolong college completion. The following conceptual framework was used to guide the research questions and methodology.

Conceptual Framework

The primary purpose of this study was to determine if the NCS scholarship expedited college completion. Earlier timing to college completion was a primary function for the legislation. The conceptual framework can be thought of as a set of ideas or concepts organized in a manner that makes them understandable (Ravitch & Riggan, 2012). The framework is tied to the ideas, definitions and research of others because it provides a map for showing a variety of paths that may be taken to get to a specific location defined as timing of college completion. Figure 1 illustrates the conceptual framework with which the researcher began.

All programs that could lead to earning the NCS typically become known to

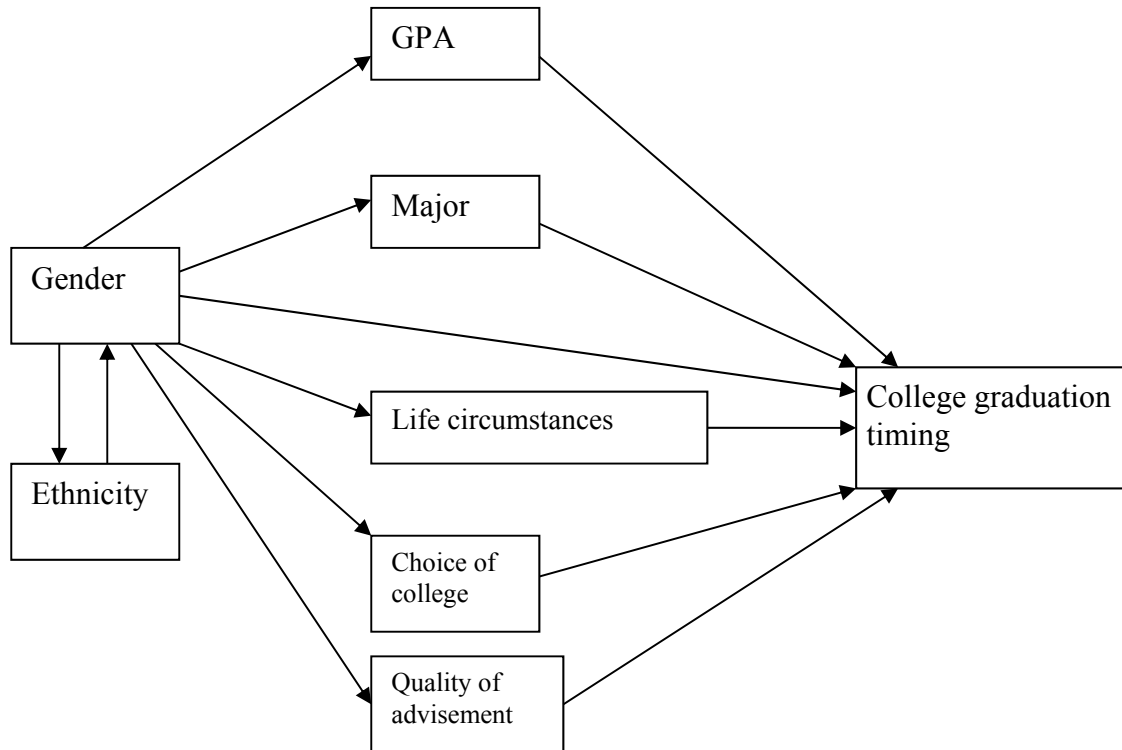


Figure 1. Research model-career pathways.

students through school counselors and advisors. High quality counseling of students is critical during the high school experience and is linked to increased retention and college completion (Adelman, 1999). Students wanting a NCS must carefully plan their high school experience to complete the sixty credits needed for the scholarship. Students participating in a well-planned concurrent enrollment program in Utah have the opportunity to earn an AA degree at the time of high school graduation. As shown in Figure 1, quality of high school advisement was considered to be an important variable as students who receive high-quality advisement are more likely to make appropriate concurrent enrollment choices in high school that hopefully lead to a satisfying college major.

NCS recipients had a decision to make on which college to attend to complete their bachelor degree and what their major of study would be. As shown in Figure 1, it was thought that students' decisions might be influenced by gender and ethnicity (Hoffman et al., 2007). It was unknown if NCS recipient's gender and ethnicity was impacted by their choice of major and their choice of college. This study sought to answer questions of NCS recipients and their choice of major and selection of college.

Some students may have chosen not to enroll in a 4-year college and be satisfied with their AA degree completion. However, this study was concerned with those who continued in higher education to earn their bachelor's degree. As shown in Figure 1, along the way at least some of these students were expected to experience life circumstances that would influence bachelor degree completion. These circumstances that may extend or delay higher education completion were potentially such things as financial problem, service (whether religious, military or personal), family issues, and health issues. The NCS program was designed to accelerate bachelor completion. This may or may not have been happening and was the subject of this research study. When expedited graduation was not occurring it would be helpful to know what particular barriers were related to the delay or to noncompletion.

Complete College America (2009) has done extensive research on college completion rates across the nation. Their research has indicated that the national average amount of time for a full-time student to complete a bachelor's degree is 4.7 years. A full-time student in Utah completing a bachelor's degree takes on average of 6.7 years. One reason that the time to completion is higher for Utah compared with other states is

that Utah has a unique cultural characteristic. Roughly 60% of the Utah population identify as Mormons (members of The Church of Jesus Christ of Latter-day Saints). Many young people of this faith at age 19 take time away from college to complete a 2-year mission for the Church. By collecting data on life circumstances, one of which is church service, the researcher was able to tease out the impact of church service from other variables that impacted the time to completion of NCS recipients.

Figure 1 represents the career pathway a NCS recipient may have taken upon earning their AA degree. Student's GPA, gender, ethnicity, quality of advisement, major, choice of college and life circumstances were explored as possible variables influencing college graduation timing. This study determined if the NCS expedited college graduation and if so for whom. It also illustrated what career pathways were most effective in expediting college graduation.

Positivist Paradigm

Given the research questions and the conceptual framework a positivist paradigm using quantitative data was selected as the preferred approach. A positive paradigm assumes that there is an objective reality and that it is measurable. Positivists generally put their focus on clarity, replicability, reliability and validity. Positivism is generally associated with quantitative research. Quantitative researchers attempt to explain relationships through the notion of causation and assist in providing an estimate of attempts at such explanations (Creswell, 1998).

Research Method

This study takes an evaluation research approach in that data collected from this research has the ability to influence future legislative funding and state policy recommendations of the NCS program through changes to Utah Code. The results of this study will be shared with key constituents so that current NCS policies such as amount of scholarship, number of years to complete a bachelor's degree, concurrent enrollment course offerings and funding of the NCS can be more effectively evaluated. The findings have the potential to influence the Governor's and legislators' actions regarding the NCS program.

Definitions of Terms

The following definitions are terms associated with accelerated learning and dual enrollment programs. Some terms define different programs and give specifics about each dual enrollment track. There are also many educational organizations and foundations that have done reports, research, and studies on dual enrollment programs. These organizations are listed in the definitions of terms along with their acronym and a brief explanation of their connection to dual enrollment studies. Definitions are followed by a table (see Table 1 following the definitions) that shows the accelerated learning programs offered across the nation. The chart compares and contrasts difference and similarities of accelerated learning programs. The definitions and literature review refer to the different accelerated learning programs. This chart provides additional information to the reader about how these programs are defined.

Associate of Arts Degree (AA): The degree is awarded for students successfully completing a defined set of arts and sciences courses as required for the first 2 years of a baccalaureate degree. These courses are referred to as general education completion courses. They include a minimum of 60 semester credit hours of general education credit courses and are acceptable transfer to completion of a bachelor degree.

Advanced placement: Accelerated learning opportunity courses for students to take during high school, depending on how students perform some of the courses may be transferred for college credit. Advanced Placement courses are courses compatible with the curriculum and assessments of the College Board.

American Youth Policy Forum (AYPF): A national organization to promote effective public policy for American youth. They make recommendations to policy makers on health and human services, education, early childhood and other government agencies.

Career pathway: The selection of courses and time to college completion taken by a high school student from high school to postsecondary education to career employment.

Concurrent enrollment: College courses taken by high school students, while still in high school. Students earn both high school and college credit simultaneously. Courses may be taken at the high school or on a college campus.

Council of Chiefs and State School Officers (CCSSO): A national organization supporting state superintendents. This organization provides professional development, best practice information, federal information, and many other educational resources to state leadership.

Career technical education (CTE): Technical education for college and career readiness, these are generally vocational and skills certification training. Generally, career technical education is earning a skills certificate demonstrating technical mastery of a vocational skill.

Dual enrollment or dual credit: College courses taken by high school students, while still in high school. Students earn both high school and college credit simultaneously. Dual enrollment and concurrent enrollment are used synonymously.

Early college high schools (ECHS): High school campuses that require high school students to take college courses. Many of these students complete their AA degree by the time of high school commencement, although this is not a requirement. The early college high school emphasis is on under-represented populations attending college, an emphasis on science, technology, engineering and math (STEM), first in family to go to college, and a rigorous high school curriculum preparing students for successful transition to college.

Education Commission of the States (ECS): A national organization representing all 50 states, including seven members from each state; they produce information on what all 50 states are implementing in terms of public policy and what public policies are producing results.

International baccalaureate (IB): Accelerated learning program offered to high school students and highly acclaimed. Students earning the IB degree have completed the most accelerated high school program offered in the US. The IB program does not offer dual enrollment or college credit. IB is a nonprofit education foundation.

Jobs for the Future (JFF): An independent education think tank on accelerated learning opportunities especially focusing on Early College High Schools research.

New Century Scholarship (NCS): A scholarship program offered to Utah High School students completing the requirements for an AA Degree. This scholarship program is redeemable at any institution of higher education in Utah including public and private institutions. The scholarship covers 75% of tuition of the remaining two years of college. Changes in 2010 capped the scholarship at \$5,000 dollars. This scholarship is unique to Utah and was created in Utah Code 53B-8-105 (2012).

National Alliance for Concurrent Enrollment Programs (NACEP): An organization that provides and conducts research on dual enrollment across the nation. NACEP does research studies, reports and statistics, on accelerated learning opportunities offered.

National Conference of State Legislators (NCSL): An organization that provides recommendations to state legislators on public policy, and provides resources and information at the request of legislators.

National Education of Longitudinal Studies (NELS): An organization recognizing studies, research, and reports in education that take place over a long period of time.

Office of Vocational and Adult Education (OVAE): An office within the US Department of Education that provides recommendations and policies in regard to vocational education and adult education.

Student Education Occupation Plan (SEOP): A written elementary through secondary school plan outlining the courses needed for postsecondary success for each

student. The SEOP process begins in the elementary school experience and is modified annually as the student progresses through the school experience and begins making career and postsecondary education decisions.

Secondary-Postsecondary Learning Options (SPLO): A model of dual enrollment in high school to postsecondary college learning opportunities. SPLOs are a type of dual enrollment and accelerated learning opportunities for high school students. The American Youth Policy organization studied dual enrollment in two states. One of the states called their dual enrollment SPLO.

Science, technology, engineering and mathematics (STEM): Some accelerated high school learning opportunities such as Early College High Schools require more classes in STEM. Students in these programs are required to complete additional credit in science, technology, engineering and math.

Tech prep: A student career pathway beyond high school to technical school preparation. The student completes 2 years of technical preparation in high school, followed by 2 years post high school in a technical school. This is generally a vocational or skills certification track.

Western Interstate Commission of Higher Education (WICHE): An organization of the western regional states providing current information on public policy in higher education.

Summary

Utah high schools, in collaboration with the Utah System of Higher Education, have had a strong state concurrent enrollment program. Annually, nearly 30,000 high

Table 1

Accelerated Learning Comparisons

Variables	Dual enrollment options				
	Concurrent enrollment	Advanced placement	International baccalaureate	Tech prep	ECHS
College partner	Yes	No	No	Yes	Yes
College courses required	Yes	May translate to college credit	May translate to college credit	Yes	Yes
AA degree completion	Yes not required	No	No	Yes Not required	Yes Not required
NCS scholarship earned	Yes, If AA	No	No	No	Yes, if AA
Courses delivered by	Higher education or high school	High school	High school	High school	Higher education or high school
IB, AP programs	No	Yes	Yes	No	Yes
STEM education	Yes	Not necessarily	Not necessarily	No	Yes
Under-represented populations	Yes	Not necessarily	Not necessarily	Not necessarily	Yes

school students participate in concurrent enrollment earning nearly 200,000 college credits. Students have the opportunity to earn an AA degree while still in high school qualifying for the NCS. This policy is unique to Utah. The scholarship pays \$5,000 for the remaining 2 years of college tuition.

The NCS was created to expedite college completion in earning a bachelor's degree. This research project examined 3 years of NCS recipients to determine if the NCS expedites college completion and if so for whom. This research project also looked at career pathways and barriers to college completion.

While there is no existing literature on the NCS program many studies have been conducted on concurrent enrollment and other accelerated learning programs. Without

such programs, the NCS would not exist. Therefore, the literature review for this dissertation focused on accelerated learning programs, dual and concurrent enrollment.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter reviews literature on dual/concurrent enrollment, accelerated learning opportunities, advanced placement, international baccalaureate, tech prep, early college high schools and other forms of rigorous course work and college courses offered in high school. These accelerated learning programs, especially dual and concurrent enrollment are fairly recent additions to the high school curriculum. Most of these programs, with the exception of AP and IB have been introduced to the high school curriculum in the past 15 years. Therefore, the research and reports available on this topic have been written during this time frame.

This chapter examines research and policy reports by the National Governor's Association, Department of Education in Washington, DC., Education Commission of the States, National Association of State Legislators, National Concurrent Enrollment Association, American Youth Policy Forum, Lumina Foundation, Gates Foundation, Jobs for the Future and other independent work done by institutes of higher education and interested researchers of dual enrollment and accelerated learning programs

The literature section is divided into five sections. First research studies on student based outcomes for students in dual enrollment programs are reviewed. Second, research on state programs and standards related to dual enrollment programs are shared. Third, policy reports on dual enrollment are reported . The fourth section provides a

summary of arguments as to the importance of postsecondary education. The chapter concludes with a summary and conclusion section.

Studies on Student-Based Outcomes of Dual Enrollment

Studies on student-based outcomes of dual or concurrent enrollment have been conducted at the national, multi-state, state, and individual school level. Some of these studies include longitudinal data. This section begins with the larger national levels studies, followed by several multi-state and state studies and ends with a school level study that looked carefully at outcomes for underperforming high school students enrolled in an ECHS program in New York.

National Studies on Student-Based Outcomes of Dual Enrollment

This first section is national studies on student outcomes based on dual enrollment. Adelman (1999) conducted both national and longitudinal studies on persistence and completion of academic credentials. He followed a cohort group of eighth-grade students through high school, high school graduation and college completion. He followed 19,893 students from 1980 to 1993. Students were approximately 30 years old at the conclusion of this research in 1993. He concluded that students enrolled in a rigorous high school program of study had greater college success and determination towards completing a bachelor degree, and that high school rigor was more important in degree attainment than socioeconomic status. The more concurrent enrollment courses students completed in high school the greater their success in

postsecondary education (Adelman, 1999).

Adelman (1999) concluded his research with pronouncements from the three themes of rigor, relevance and relationships. Adelman contended: (a) Student preparation in high school is paramount. Students taking rigorous courses and maximizing their high school experience tend to complete college at a higher rate. (b) Curriculum and attendance is of the utmost importance. Students must have advanced quantitative literacy skills. Students must complete their first year of college with a minimum of 20 credits to ensure future college success. Students should avoid noncredit classes and no credit repeats as these become detrimental to completion. (c) Quality advisement that assists the student toward college completion is critical. Students will experience ups and downs during their college experience. Students need to be viewed as responsible adults. Higher education has a responsibility to provide students the education they are paying for and assist them across the finish line of graduation.

Adelman (2006), in *Tool Box Revisited*, examined a second cohort group of students through high school and into college. This work is commonly referred to as the NELS 88/2000, National Education Longitudinal Study of eighth-grade students. The sample size of this longitudinal study was 12,000 students. He replicated the 1999 study to determine if changes may have occurred as two significant events had happened with the release of The Nation at Risk report and the new legislation of No Child Left Behind. Adelman (2006) noted that the two longitudinal studies conducted 10 years apart resulted in similar outcomes. Again his research supports students taking a rigorous high school course of study, capitalizing on as many rigorous courses as possible and the importance

of advisement. This second study reinforced the outcomes of his original study.

According to Adelman (2006), again a student completing 20 credit hours by the end of their first year of college is an important predictor of future success. Adelman recommends dual enrollment credits in high school as one way to help students meet that threshold. Students entering college with college credit already earned have a jump start on this goal. Student persistence and determination is a second critical factor, with students participating in summer semesters, earning more credit more quickly also leading to higher graduation rates. According to Adelman (2006), there are additional factors which support greater retention and completion rates of students. These factors include students entering college immediately after high school graduation, students attending college full time, students enrolled continuously, and student's transferring from a community college to a 4-year institution.

Swanson (2008) conducted research on the impact of high school concurrent enrollment course participation and student postsecondary academic success, student persistence and college completion. Her sample size consisted of 4,514 students from the Adelman (2006) work NELS 88/2000 study. This study included nationwide preexisting data. In her research she looked at differences between students participating in dual enrollment versus students not participating in dual enrollment. She compared the two groups and asked questions like does participation in dual enrollment affect college participation, how many credits need to be earned during the first year of college to assist with persistence and completion, and what was the college experience like? She found that students participating in dual enrollment had greater persistence and entered higher

education earlier than nonparticipants. She found that dual enrollment students whose parents were in higher SES families and had higher ACT scores entered college earliest. She concluded that students participating in dual enrollment had “academic momentum” and completed a bachelor degree at higher rates (Swanson, 2008). Her research also noted that “dual enrollment participation positively impacted students’ persistence, and positively affected students’ accomplishments in degree attainment at both the bachelor and graduate level” (Swanson, 2008, p. 6).

Swanson (2008) acknowledged several potential drawbacks to dual enrollment programs. She cautioned that academic rigor of high school concurrent enrollment courses needs to match the same expectations as a college campus. She also mentioned that funding of dual enrollment programs can be a drain to states, as funding in some states is significantly decreased when compared to the cost of college tuition and program delivery.

Multistate and State Studies on Student-Based Outcomes of Dual Enrollment

This next section reviewed multi-state and state level studies on student based outcomes of dual enrollment. Karp, Calagno, Hughes, Jeong, and Bailey (2008) conducted a study on dual enrollment and postsecondary outcomes of students in two states—New York and Florida. The New York data set included students who attended one of New York’s vocational high schools ($N = 2,303$ students). The Florida data set included all Florida students in public high schools ($N = 299,685$). Researchers asked questions about the short-term effects of students participating in dual enrollment

programs, college persistence, long-term effects and demographics of participants. They discovered positive outcomes in both states and recommended the following policies: expand opportunities for all students to participate in dual enrollment by making enrollment less restrictive; encourage students to take as many courses as possible that apply toward college completion; reach out to underserved populations such as ethnic minority members, low SES students, and women. The researchers concluded that students participating in dual enrollment courses were more likely to: graduate from high school, enroll in postsecondary education, have a higher grade point average, and demonstrate greater persistence in college. They found similar results for students participating in dual enrollment career technical education courses or Tech Prep.

A weakness in the research (Karp et al., 2008) was that students participating in these programs self-selected to participate in a more rigorous course of study in high school and therefore results may be related to factors such as academic ability and motivation rather than dual enrollment. No comparison was made to other high school students who were high achieving but did not take dual enrollment classes. Potentially, conclusions from many dual-enrollment studies may be about the characteristics of students who are motivated to engage in rigorous college courses while still in high school rather than about the dual enrollment classes themselves.

Hoffman (2005), funded by the Gates Foundation and JFF, published a policy brief on dual enrollment and state strategy to increase postsecondary success for underrepresented students. Analyzing preexisting data she created case studies for six states. Her case studies were based on 34,762 students in Florida; 23,384 students in

Utah; 14,170 students in New York; 20,405 students in Illinois; 13,915 students in Virginia; 15,610 students in the Running Start Program in Washington; and 13,690 students in the Washington's Tech Prep Program. Her work is known as “add and subtract,” adding courses during the high school experience, thus subtracting tuition in the total cost of getting a postsecondary degree. Her work examined all aspects and policies of dual enrollment programs in these six states; their policies to recruit underrepresented populations; and specific commendations to states that are doing it right, Utah was one of these noted states.

Hoffman's (2005) work provided guidelines and strategies to states for successful dual enrollment programs. She states that ensuring access for all students, including low socioeconomic status (SES) and underrepresented populations is critical. The collaboration between secondary and postsecondary institutions is also noted as essential. States need to establish K-16 or P-20 alliances, increasing secondary to postsecondary transition success. Hoffman's recommendations include ensuring funding policies that provide programs to students without harming higher education partners. She concluded her work with looking at three dual enrollment state policies. Utah was featured in her work. Some of Utah strengths were: service to a wide range of students including underserved populations, the ability students have to complete an AA degree, state funding policies, and state access and transferability of credit. Utah had 23,384 students in 2003-04 participating in dual enrollment earning 153,727 college credit hours with 270 students qualifying for the NCS.

Washington State Board for Community and Technical Colleges (2006) produced

a report called *Running Start* on a state program that allows high school juniors and seniors to take college courses at Washington's 34 community and technical colleges. This study included 162 rural area high school students who participated in dual-enrollment programs. These students did not pay tuition, but did purchase their own books and provide their own transportation. Students received both high school and college credit for these courses with the hope of accelerating college graduation. In this 2006 report researchers found: (a) Running Start reduced the amount of money spent on college education reducing costs to the student and the state; (b) Running Start students completed more of the credits they attempted than other new college students; and (c) one measure suggested that Running Start students earned better grades in college courses than their peers who did not participate in the program.

Brophy and Johnson (2006) analyzed additional data from the State Board for Community and Technical Colleges study of 162 rural high school students participating in Running Start dual enrollment program in Washington. They developed and utilized a survey instrument designed to ascertain why rural high school students participate in dual enrollment courses for college credit. They discovered that financial reasons were a reason why rural high school students participated in dual enrollment as tuition is paid by the state, thus saving students money for the rest of their college experience. Rural high school students also earned social capital as a result of participating in dual enrollment. The researchers note that dual enrollment students valued the opportunity to engage with mature college students and course work and the challenges associated with the higher expectations. Their research suggested that dual enrollment did prepare students for

college while still providing a safety net of assistance at the high school.

Morrison (2008) conducted a study of over 9,200 student records from 1996-2006 on early college opportunities for high school students. This study affirms that acceleration or dual enrollment has significant effects on educational attainment. He estimated that the odds that an accelerated student graduating with a degree compared to a non-accelerated student is 1.61 times greater and female students experienced the highest graduation probabilities. Accelerated students had higher GPAs and higher ACT scores. Accelerated students were more likely to be full time students than part time students. In his discussion of these findings the researcher states that “Successful acceleration raises student/family expectations for both high school and college performance. Early success in college courses for a high school student was a powerful motivator and it provided an enhanced self-concept” (Morrison, 2008, p. 20).

An economic analysis of Morrison’s policy implications showed that the State of Iowa saved \$21.7 million that would have been spent in funding students at more costly higher education campuses and it saved families \$30.7 million in college related expenses. Findings include that accelerated students experienced higher levels of academic achievement both in high school and college than their nonparticipating peers and that acceleration significantly impacts positive outcomes for students.

North and Jacobs (2010), in collaboration with the Oregon University System, Office of Institutional Research, the Department of Community Colleges and Workforce conducted a pilot study of dual enrollment programs in Oregon. Their study included 11,855 student in 2006, and 15,707 students in 2008 at Oregon high schools. The students

earned 108,913 and 133,193 college credits, respectively. They found that students participating in dual enrollment transitioned better to higher education whether the students took the classes at high school or a college campus. The study addressed two questions: (a) Do high school students who take dual credit courses succeed when they go on to college? and (b) Do students taking dual credit instruction in high school do as well as students in college situated instruction in terms of preparing them for subsequent college course work?

North and Jacobs documented data from 2005 to 2008. In reference to Question 1 their research indicated that there is an array of evidence that dual credit students do succeed. They documented that dual enrollment students have a higher college participation rate than high school graduates overall. Dual credit students who go on to college have greater persistence rates, have a higher GPA and earn more credit into the second year of college than nonparticipants of dual enrollment. Answering the second question the quick answer is yes. Dual enrollment students counseled into the appropriate prerequisite courses were as prepared as other college-situated students in being prepared and ready for the final course of the sequence with one exception. There were mixed reviews specific to the mathematics sequences that did warrant further scrutiny.

Single School Study on Student-Based Outcomes of Dual Enrollment

The final section is a single school study on student based outcomes of dual enrollment. Alaie (2010) was involved with an initiative established by the Gates Foundation. The Gates Foundation gave \$100 million to states for startup funding to

establish 160 Early College High Schools (ECHS) across the nation including Utah. The ECHS would offer a college experience to underserved students and assist these populations in getting 2 years of college credit while still in high school. Early College High School model schools are looking for students that may be under prepared and first in family to go to college and recruiting them to an accelerated program. Under performing students generally do not take a rigorous course of study or are not counseled into these programs and often find they are not prepared to be successful in rigorous dual enrollment courses (Alaie, 2010). The ECHS model sought to change this.

This is a specific study about an ECHS/college experience at an Urban College in New York (Alaie, 2010). The Gates Foundation gave \$400,000 to Urban High School, a school of 400 students. Eighty percent or more of the approximately 400 enrolled students in grades 9-12 scored at or below grade level on the eighth-grade reading and math tests. The sample size identified at Urban High School was 37 students. The ECHS opened in 2003 recruiting a majority of ethnic minority students and low SES students. There were concerns about these students success in a college biology class. Therefore, it was determined by staff that the students would attend the college biology class offered by the college, but would also receive three additional lectures and support by the faculty or their designee at the ECHS. Results of the study indicated that many of the ECHS students failed to attend the additional lectures, and ultimately 31 of 37 students failed the first exam, the second exam and finally the course. Only 9 of the 37 students transitioned to Urban College and most experienced a negative experience.

Following are the lessons learned from Alaie (2010). It is difficult to take students

who have traditionally performed below grade level, then enroll them into an ECHS without appropriate monitoring and expect them to be successful. The ECHS model needs to be one that will set students up for success and a positive experience.

Suggestions for a more successful experience include taking daily attendance, smaller class size, greater student preparation for the course and course difficulty, and increased support from teachers and counselors.

In summary, the research studies looking at outcomes for students taking college level courses in high school suggested that students who do so get a jump start on their college experience. Educators should be encouraged to support a rigorous course of study for high school students, including dual enrollment classes, in preparation for successful college transition. Students completing some college while still in high school tend to experience higher levels of college success than peers who have not done so. That said the students in these studies are generally a select group of motivated and academically able students. As can be seen from the Alaie (2010) study, marketing college credit to under prepared students is much less likely to result in a successful experience. Still, it is important to consider that for many students that are first in family to go to college, low income, or from underrepresented population, dual enrollment programs, with appropriate advisement and academic support, may provide a critical gateway to successful college transition.

Research on State Programs and Standards for Dual Enrollment Programs

Concurrent and dual enrollment programs are widespread throughout the nation.

This section reviewed two major studies that provide a picture of how extensive these programs are at the secondary education and postsecondary levels. This section also reviews a study specifically related to ECHS programs.

Waits, Setzer, and Lewis (2003) conducted a study on dual enrollment and exam based courses in US public high schools. This work was requested by the Office of Vocational and Adult Education as little was known about dual enrollment or accelerated learning opportunities on high school campuses. They mailed 1,499 questionnaires to public schools across the nation to gather data on dual enrollment in public schools. The principal at each participating school would select the most knowledgeable person on the campus to fill out the questionnaire, usually a high school counselor. Data were gathered from all 50 states. Questions that were asked in the survey were if the school offered dual enrollment, AP or IB.

Results from their survey were: most high schools offer dual enrollment or exam based courses, 71% offer dual enrollment, 67% offer AP, and 2% offer IB. They also concluded that the larger the high school population the more dual enrollment and credit based programs were available for students. Schools in rural areas were less likely to offer AP classes. Schools with more ethnic minority students were less likely to offer dual enrollment than high school populations with low minority rates. States located in the central region of the US were more likely to offer dual enrollment, while states in the northeast were more likely to offer AP courses. In 2002-03 there were an estimated 1.2 million students enrolled in dual enrollment, 1.8 million in AP and 165,000 students in IB (Waits et al., 2005).

Kleiner and Lewis (2003), using the Postsecondary Education Quick Information System (PEQUIS), mailed a questionnaire in 2004 to the 1,600 providers of degree-granting postsecondary institutions in all 50 States. The primary purpose of this research was to present national estimates on dual enrollment. At each institution of higher education a coordinator most knowledgeable about dual enrollment was given responsibility to fill out the survey. The response rate was 92%. These results provide a sense of the national involvement of postsecondary schools in dual enrollment courses during the approximate time when students in this proposed study were taking concurrent enrollment classes.

Survey respondents were asked to report on course taking by high school students at their institutions both within and outside of dual enrollment. Among institutions reporting information on dual enrollment programs additional information was collected on the characteristics of the program, course location, faculty or instructors, course curriculum, eligibility requirements and funding. If they had dual enrollment specifically targeted to students at risk then additional questions were asked.

These were their findings: during the 2002-03 school year 48% of postsecondary degree granting institutions offered dual enrollment to high schools, among all institutions a greater percentage of public 2-year institutions than public 4-year institutions had students enrolled in dual enrollment, approximately 680,000 took credit within dual enrollment.

The characteristics of dual enrollment produced the following results: 80% offered courses on the college campus while 55% offered courses on the high school

campus, of the courses taught at the high school 26% reported that the course was taught by college faculty, 86% reported same qualifications for college faculty as high school instructors, 48% of institutions reported that students took one course per year, with 19% reported students taking two courses, 94% of institutions with dual enrollment awarded college credit with 59% offering dual credit. Researcher findings in reference to looking at academic requirements for enrollment in dual credit programs: 85% had academic eligibility requirements and a higher percentage of 4-year than 2-year institutions had academic requirements. Many of these institutions also required a minimum GPA.

The eligible grade levels among institutions for dual enrollment were as follows: 96% allowed 12th-grade students to participate, 86% allowed 11th-grade students to participate, and only 28% allowed 10th-grade students to participate. The results for funding of dual enrollment programs reported the following: 64% of institutions reported that parents and students paid the tuition as part of the program, 38% reported indicating their own postsecondary institution paid the tuition, 37% reported that the high school and public school districts paid the tuition.

Questions were asked regarding dual enrollment programs for students at risk. Five percent had dual enrollment programs specifically targeted for high school students at risk; this was approximately 6,400 students. Those with programs geared to students at risk reported that the primary focus of the program was career/technical training, again reporting that at risk students took only one course per year, and of those offering programs to students at risk 66% provided extra assistance.

In summary, this study indicated that dual enrollment programs for students at

risk may provide a safety net for them as they transition to college. Dual enrollment courses offered on the high school campus provide an additional support system of greater access to teachers and counselors helping students persist in the accelerated learning programs. In addition, students have greater access to mentoring and tutoring available.

McKnight and Vargas (2004) funded by the Gates Foundation and Jobs for the Future, explored Early College High Schools. They collected data on four states and their policies and made recommendation on changing state policies to support Early College High Schools. According to McKnight and Vargas, a very important element in getting ECHS initiatives off to the correct start is gaining early support of key government, education, and community stakeholders and leaders. In addition, state officials need to be serious about creating secondary to postsecondary systems for high school students and they need to fund the cost of creating these ties. As states move forward with the implementation of ECHS the researchers implore them to collect data on what is working and be able to demonstrate to policy makers what is happening with these programs, who is being served, and what the outcomes are for students.

Policy Reports on Dual Enrollment

There are a plethora of reports from a wide variety of organizations that address concurrent enrollment and other early college access programs. Organizations such as CCSSO, The National Center for Public Policy and Higher Education, Institute for Educational Leadership, Stanford Institute for Higher Education, The James Irvine

Foundation, The Citizens League Report, Lumina Foundation and the American Youth Policy, to name a few have interest in accelerated learning opportunities in the states. In order to synthesize the work of these many organizations a table has been structured to summarize their reports. As would be expected, their reports generally reflect the research literature cited earlier in this chapter. Table 2 reports the organization and authors, purposes of the report, major findings and recommendations from these reports. The reports were organized alphabetically by sponsoring organization. A summary of these reports follows Table 2.

These reports provided insight into how various professional organizations and research centers are interpreting the research on dual enrollment programs. A common theme in many of these reports was the need for common metrics to be established nation-wide (Karp & Jeong, 2008; Lerner & Brand, 2006). Without these common metrics researchers and policy analysts state that it is difficult to collect data and measure it against information collected in other states. While some of the reports share promising evidence that dual enrollment leads to positive outcomes for students these same reports caution that much more needs to be done in gathering data on program effectiveness. In the Council of Chief State School Officers, Karp and Jeong directly stated that currently there is little evidence to support the contention that dual enrollment contributes to student college access or college completion.

Several of these reports stressed the need for rigorous high school curricula assisting students with a successful transition to postsecondary education (Citizens League Report on Higher Education in Minnesota, 2004; Golann & Hughes, 2008). The

Table 2

Table of Policy Reports

Organization & authors	Purpose	Findings and recommendations
American Youth Policy Forum Lerner & Brand (2006)	To identify, analyze, and summarize, programs, and policies on dual enrollment programs.	Very little data on students earning dual enrollment credit has been gathered past the first year of postsecondary education. There are many inconsistencies in terms of use and acceptance of concurrent enrollment credit. This may influence cost effectiveness and likelihood of earlier graduation. Dual enrollment does seem to have a positive effect on likelihood of earning a degree. To be successful, students also need good advising, tutoring, and financial assistance.
Citizens League Report on Higher Education in Minnesota (2004)	To conduct a report on postsecondary access for low income and underrepresented populations.	Recommendations from the report included rigorous course taking in high school (including dual enrollment and AP classes) in order to provide stronger college preparation for low income and underrepresented populations. They recommend stronger accountability in higher education with findings needing to be reported to taxpayers.
Council of Chief State School Officers Karp & Jeong (2008)	Report on effectiveness and investment merit of dual enrollment programs.	No common metrics for measuring success of dual enrollment programs exist across states. Given that students have not been adequately tracked little evidence exists that dual enrollment contributes to student college access or college completion. A call is made to collect data on participants.
James Irvine Foundation Golann & Hughes (2008)	To inform educators, policy makers, administrators, and researchers on dual enrollment polices in California High Schools	Their report states that students participating in dual enrollment program see benefits to taking rigorous courses in high school. Dual enrollment improves the transition to college and reduces the cost of a college education by earning credit while in high school. Students who may struggle with dual enrollment courses need to have greater access to teachers and advisors.
James Irvine Foundation Edwards, Hughes & Weisberg (2011)	To make recommendations regarding the development of high quality dual enrollment program.	Dual enrollment is an attractive option especially for students that are low income or are from underrepresented populations. Students taking college classes and experiencing success gain academic momentum and confidence, especially those first in family to attend college. Attending courses on a college campus, taking courses from highly qualified instructors, earning both high school and college credit, and selectivity in course enrollment are all recommended. Students in such programs gain academic momentum and confidence to persist.

(table continues)

Organization & authors	Purpose	Findings and recommendations
Jobs for the Future and WICHE Reindl (2006)	To make recommendations for accelerated learning opportunities for high school students.	They recommended that common metrics need to be established across states so that data on dual enrollment programs can be shared and compared. Longitudinal studies on cohort tracking of students from high school to college and to the workforce must be funded. Rigor of accelerated learning programs must be equivalent to the institute of higher education. Cost of tuition for dual enrollment courses must be addressed with an eye to the needs of low income and underrepresented populations.
Lumina Foundation & Western Interstate Commission for Higher Education (2006)	To produce a report to states on outcomes of students participating in accelerated learning opportunities.	They reported that no common metric for collecting data exists. They recommended national and state metrics need to be established. They recommended that states ensure access to accelerated programs and that states should recruit low SES and underrepresented populations.
National Center for Public Policy and Higher Education Institute for Education Leadership, & Stanford Institute for Higher Education Research; Callan, Finney, Kirst, Usdan and Venezia (2006)	Collaborated to develop a report on college readiness and success in postsecondary schools.	Lack of preparation for the rigors of college is the greatest challenge to success in postsecondary education. Advancing college work earlier through dual enrollment programs in high school is one way to better prepare all populations for the college experience.
National Conference of State Legislators' Blue Ribbon Commission on Higher Education (2006)	NCSL convened a group of 12 legislators to understand why the US is losing ground in college completion.	NCSL reported that low college completion rates may be due to increasing tuition rates and poorly prepared students. They recommended that state legislators take an active role in defining a clear pathway to increase rates of college completion.

reports stress that ensuring that dual enrollment courses were comparable or authentic to the college level courses is essential in preparation and transition to postsecondary education.

A third theme that emerges from these reports is the need for dual enrollment programs to serve underrepresented populations, first in family to attend college, ethnic minority, and low SES students (Edwards, Hughes, & Weisberg, 2011; Reindl, 2006). Many of these students are not traditionally viewed as transitioning to college, but dual enrollment programs have the potential to assist students with the preparation for and transition into postsecondary education programs. These reports emphasize that in

today's world it is important for all students to graduate from high school and receive postsecondary education. Dual enrollment and accelerated learning programs are vehicles that can make this a reality.

In summary, section four highlighted the attention that dual enrollment programs are receiving from many agencies concerned with providing high quality, accessible education for students at the postsecondary level. Dual enrollment is seen as a potential way of increasing the likelihood of college attendance, increasing college retention rates, and improving postsecondary graduation rates.

Importance of Postsecondary Education

This section addresses how the need for postsecondary education has increased and how concurrent enrollment programs can help address this issue. Central to this discussion is the premise that concurrent enrollment programs can make higher education more affordable.

When high schools were organized at the beginning of the 20th century their focus was preparation for the industrial revolution. Businesses needed workers for manufacturing, assembly lines and manual labor. This was the focus of high school preparation. One hundred years later the workforce needs of the nation are very different. Employers need trained technicians, specific sets of vocational and postsecondary skills and individuals with bachelors and graduate degrees. Most jobs today require some postsecondary education (USHE, 2011a). The high school model of the past no longer meets the workforce and college preparation needs of today (Carnevale, Smith, & Strohl,

2010). Students need more rigor in high school and greater opportunity for accelerated learning programs if they want to compete in today's colleges and the workforce.

Carnevale and colleagues (2010) of Georgetown University, Center of Education and the Workforce recently completed a watershed study on state economies and workforce shortages. By the year 2018 the United States will have a workforce demand of an estimated three million individuals needing training in postsecondary certificates and degrees (Carnevale et al., 2010). This demand is the latest indication of how important postsecondary education and training has become to the nation's economy. By the year 2018, 66% of the jobs in Utah will require postsecondary certification or a degree (Carnevale et al., 2010).

For a variety of reasons Utah is experiencing rising enrollment in postsecondary education and this is occurring at a time when state budgets are shrinking (USHE, 2011b). This has caused the cost of getting postsecondary degrees and certificates to rise. The average college tuition per year in Utah is \$4,374 (USHE 2012a). This is significantly lower than the national average but is still unaffordable for many students and families. The cost of higher education is consistently rising at the same time that the need to get a college degree is increasing.

No longer is a college education a luxury. It has become a necessity and with the rising cost of a higher education many students are enrolling in concurrent enrollment classes. These courses assist students in taking college classes while still in high school, getting credit toward high school graduation requirements and college credit. In addition, international baccalaureate (IB) and advance placement (AP) courses may also assist

students with college credit while still in high school. Given that tuition is not charged on concurrent enrollment courses taken in high school in Utah, this reduces the cost of getting a college degree. As discussed earlier in this chapter dual/concurrent enrollment and accelerated learning programs can help increase high school to college transition, improve academic preparations for college and motivate students to choose more rigorous high school classes prior to graduation (Bailey, Hughes, & Karp, 2002). Plus it gives students and families a break on the cost of a college education.

As shared earlier in this review the interest in concurrent enrollment programs is nationwide. Many state initiatives have targeted concurrent enrollment programs to enable high school students to earn college credit in course work offered by the nearest institute of higher education to the high school. The literature suggests that concurrent enrollment programs have the potential to address a number of critical education issues particularly the creation of more affordable higher education for many students, and the assisting of students with a smoother transition to postsecondary education.

Summary and Conclusions

Dual enrollment or accelerated learning programs have been in existence for many years. However, they have expanded greatly during the past 15 years with all states providing some form of accelerated learning opportunities, such as dual/concurrent enrollment, AP, IB, tech prep, ECHS and other models (Hoffman et al., 2007). This may be in some way related to rising cost of tuition in higher education and high school students viewing this as a way to get a jump start on post education, saving time and

money. This could also be due to students wanting greater access to a more rigorous curriculum and accelerated learning opportunities is that vehicle.

Some studies have claimed stronger preparation for higher education access and success, smoother transition to higher education, greater persistence and degree completion. Other studies warned many of the students participating in these programs self-select and outcomes may not be generalized to all populations.

A common theme in many of the research studies points to the importance of rigorous high school preparation. Student's participating in a rigorous course of study during high school, whether it is concurrent enrollment, AP, IB or others are better prepared for college. Many of the articles stated that rigorous high school preparation assisted students with recruitment, persistence and completion in higher education. One thing is clear, better data collection and common metrics systems need to be developed within states and across the nation.

There are some researchers that have empirical data on the success of dual enrollment programs showing that such programs support persistence and college graduation, but again it is unknown if these students self-selected or could only participate after entrance requirements were met to participate in the accelerated programs. One study recruiting underrepresented population documented negative experiences of the dual enrollment students. Many of these students experienced failure with dual enrollment courses at high rates.

How states choose to address implementation of accelerated learning opportunities varies as greatly as the states. There is evidence to support that some states

do have state-wide policies governing dual enrollment. Unfortunately, many states do not have state-wide policies governing dual enrollment programs, the offering of dual credit, transferability of credit, articulation agreements and cooperation between high schools and postsecondary institutes.

Research on the effectiveness of dual enrollment programs in terms of reducing the time it takes to graduate from college, thus reducing costs as well has not been conducted. This study's purpose is to answer the question on effectiveness of dual enrollment toward postsecondary transition, retention and ultimately college completion.

CHAPTER III

METHODOLOGY

Overview and Study Design

The purpose of this study was to examine the effectiveness of the NCS program in expediting graduation. The study investigated education pathways and identified barriers to early graduation. In an attempt to improve the NCS program this study clarifies what the most significant barriers are and strives to suggest ways to surmount these barriers. In order to address the research questions the researcher conducted a census survey of all NCS recipients from 2004-2006 since the data and funding for this survey were readily available. The USHE maintained these student's records and contact information and assisted with outreach to 613 graduates. This chapter includes the research questions, methodology, population, survey description, data sources, the collection process, data access and security, and plans for statistical analysis.

This is a quantitative evaluation research study where data collected is used to analyze a current state policy and funding stream. This study will be used to assist policy makers to determine whether the program is accomplishing its intended outcomes and, if not what can be done to achieve success with the NCS. This study will be used to inform legislators and the Governor on the outcomes of the program. Based on outcomes of the study the program funding may be increased to allow more students to participate, modified to improve outcomes of the NCS to reach intended outcomes of earlier college graduation or the statute and funding may be changed or redirected.

Many high school students have graduated with the NCS receiving a \$5,000 scholarship for the remaining two years of tuition. Policy makers want to motivate students to complete a bachelor degree more quickly than the traditional 4.7 years (Complete College America, 2009). This is the first study of this kind to determine if the policy is reaching the established goal of earlier college completion.

By conducting this research the researcher wanted to discover the impact of gender, ethnicity, GPA, college selection, college major, quality of advisement and life circumstances on the timing of college graduation. This study determined if any of these variables positively or negatively impact time to college completion for NCS recipients.

Population

The population for this study is all NCS graduates between the school years of 2004-2006. Table 3 shows the number of students who earned the NCS award (USHE, 2011a). USHE was willing to work with the researcher in getting the survey to these graduates. USHE has a strong interest in the results of this study and was willing to contribute time and resources to contact participants.

Table 3

Number of Students Earning the NCS Award

School year	Number of students
2004	154
2005	188
2006	271
Total	613

When conducting surveys the response rate of individuals in the study must be large enough to make generalizations to other students who have qualified or will qualify for the NCS. This study attempted to collect data from the entire population of students qualifying for the NCS during a three consecutive year time period. This time period was selected for the research as it provided enough time for students, even those with barriers, to graduate with a bachelor degree. The entire population consists of 613 students. It was anticipated that a major factor impacting return rates of the online survey was the accuracy of the contact information. As expected, the contact information such as email addresses, regular addresses, and phone numbers had not been updated since high school graduation so it was not possible to contact all students.

Pilot Study

A pilot of the survey was conducted during the summer of 2011 to test the questionnaire construction and response rate. The pilot consisted of 40 surveys; 32 individuals responded indicating an 80% response rate (see Appendix C). Minor changes were made to the survey. They included listing respondent's college major, high school where they graduated, year they completed their bachelor's degree. Questions were also added regarding whether or not the respondent was first in family to earn a bachelor degree and whether or not they received financial aid in addition to the NCS. The final revised instrument will be discussed in the next section.

Based on the pilot test and comments made by respondents it was ascertained that with a few minor revisions the instrument would be an appropriate tool for answering the research questions posed in this study. The high return rate was encouraging, suggesting

that recipients would be interested in giving feedback on their experience.

Survey Instrument

The revised survey instrument contained 28 questions (see Appendix B). The questions asked students about choice of major, choice of college, time to completion, high school advisement, life circumstances that may have prolonged college completion, career satisfaction, AP and IB participation, high school attended, AA course acceptance, full or part-time course load, summer school attendance, and demographics. The purpose of the survey was to identify career pathways to timing of college graduation. This research examined variables that expedite and variables that extend college completion. Data was collected on the events that occurred between high school graduation at the time students were awarded the NCS to the time the student graduated from college. The effectiveness of the NCS scholarship program was measured by the dependent variable “college graduation timing.” The independent variables in this study were gender, ethnicity, GPA, college selection, college major, high school counseling, life circumstances, attending full or part time, summer school attendance and AA course acceptance (see Appendix A).

Administration of the Survey

All NCS students graduating between 2004 and 2006 were asked to participate in a 28-question survey. Responses were voluntary and anonymity was assured. Graduates between the years of 2004-2006 were contacted by email and mail. Where USHE had email addresses recipients were contacted by email with a link to the survey. Where

USHE did not have email addresses recipients were contacted by mail using a postcard with an easy link to the tool on Survey Monkey. Two weeks after the initial email and mailing a second reminder was sent out to all 2004-2006 NCS respondents.

Power and Effect Size

A power analysis was performed to estimate how many respondents would be needed to adequately represent the population. G*Power 3.1 software was used to perform this estimation (Erdfelder, Faul, & Buchner, 1996). It was determined that a sample size of 270 respondents or 44% of the population would be a representative sample to achieve a medium effect size.

A linear multiple-regression was used to analyze the data with significance set at .05. A one-tailed test to detect time to college completion was proposed for this a priori estimate. Results of the survey would be reported using IBM/SPSS statistical analysis Version 20.

Research Questions

Based on the objectives of this study, the following research questions were addressed.

The first eight research questions examined the bivariate relationship between the independent variables, life circumstance, choice of major, choice of college, quality of high school advisement, GPA, gender, ethnicity and the dependent variable college graduation timing. The ninth research question examined which variables were most important in determining college graduation timing.

1. Did the NCS expedite college graduation?
2. What life circumstances (i.e., financial, service, family or health) are related to NCS recipients and college graduation timing?
3. Was the choice of major related to college graduation timing of NCS recipients?
4. Was the choice of college institution related to NCS recipients and college graduation timing?
5. Was the quality of high school advisement related to college graduation timing of NCS recipients?
6. Was GPA related to NCS recipients and college graduation timing?
7. Was gender related to college graduation time of NCS recipients?
8. Was ethnicity related to college graduation timing of NCS recipients?
9. What variables most influenced college graduation timing?

Question 9 required a multivariate analysis and examined the relationship between some of the independent variables listed above. They also included full or part time attendance, summer school attendance, AA course acceptance, advanced placement participation, international baccalaureate participation, and AA course acceptance and the dependent variable, college graduation timing.

Evaluation Research

This evaluation study was designed to gather data on the effectiveness of the NCS program and used quantitative data collection and analysis methods using a positivistic

approach to research. Evaluation research was chosen as the best fit for this research. Information gathered on the NCS informed ways to expand, improve or terminate the program. The researcher was interested in conducting this study to clarify if the money going towards the scholarship program was resulting in expedited graduation.

The first step in evaluation research is to identify the problem. In this study, each NCS recipient's career pathway to timing of college completion was at the core of this work. The second step in evaluation research is to decide what data to collect and how to collect the information. In this study only NCS recipients could participate. The researcher selected NCS high school graduates between the years of 2004-2006. In the years prior to 2004 the annual number of NCS recipients was very small. Selecting participants who graduated after 2006 would not allow enough time for some of the NCS recipients to have completed college. NCS graduating classes of 2004-2006 would have between six to eight years after high school graduation to complete college. Data was collected via an anonymous survey, using Survey Monkey, to determine career pathways and timing of college completion. The third step in evaluation research is to collect and evaluate data collection from NCS recipients. After collecting the survey data, descriptive data, association and correlation statistics as well as multiple-regression analysis were used to examine the data. The fourth step in evaluation research is to describe the use and application of the data. The fifth step of evaluation research is to report the findings. Results will be shared with the Governor, legislators and USHE as they will be very interested in the results of this project. My role as the researcher was to remain detached and objective and report the results.

Survey Research

Survey research has changed significantly since the advent of the internet. It is much quicker, less expensive, provides immediate feedback and is more convenient for both respondents and researchers. Dillman (2007) referred to current survey methodology as tailored design. Tailored design is the development of survey processes that creates respondent trust, interest and perceptions of increased rewards and reduced costs for being a respondent. This also takes into account the ability to reduce survey errors since data is directly entered by NCS recipients. Some elements of the survey research as they relate to this study are outlined below.

Create Respondent Trust

Dillman (2007) noted that trust is a critical component to survey participants who may question whether or not it is worth their time to complete this survey. They may also question whether or not it will really make a difference. The survey link that was sent to respondents explained to them that this study was about the NCS program they were awarded. It was expected that most recipients would be very proud of this accomplishment. It was also sent from the Governor's Education Director with a link to the researcher's email if they would like to contact the researcher or follow up on results of the study. There was no request to obtain personal information, and responses were anonymous, voluntary, and confidential.

Perceptions of Increased Rewards

Students qualifying for the NCS worked very hard to earn this scholarship. Peers

and younger siblings in many families see the rewards for older siblings and also want to aspire to the same level. NCS participants in this study had the opportunity to respond and influence policy recommendations for the future. Their responses have the potential to affect future NCS applicants.

Survey Monkey was the survey tool used to email the survey to the 2004-2006 NCS respondents. NCS recipients completing the survey were required to answer all questions before they could submit the questionnaire. IP addresses were recorded with Survey Monkey and excluded respondents from responding more than one time.

Dillman (2007) stated that when survey respondents are addressed on a more personal level response rates increase and participants feel rewarded. Students were asked to participate. They were informed that their response has the potential to shape future funding and policy recommendations for the NCS program. Students participating in the survey were thanked for their participation. Students were also given a number to call if they had questions. The survey was designed to avoid inconvenience and to be quick, short and easy to complete.

Reduced Cost

Reduced cost is referring to reducing concerns such as risk of identification of participants, the amount of time a survey takes and the reduced cost of doing an electronic survey for both the researcher and respondents. The invention of web based surveys has created a wonderful opportunity to collect information immediately and with very little cost. In the past there were the expenses not only of time, preparation and printing, but of paper and postage.

The method for conducting surveys has changed exponentially in the past 10 years (Dillman, 2007). The survey efforts the researcher implemented are aligned with the tailored design approach of establishing trust, increasing rewards, reducing costs and fitting the survey to the population. As previously noted, trust was built and social costs reduced by not placing individual respondents at risk for individual identification. The possibility of rewards was increased by participants feeling empowered to influence funding and policy of the NCS.

Sensitivity to Data Collection and Reporting

Responses were voluntary, anonymous and confidential. Respondents could not be linked to their responses. Responses are reported collectively in this dissertation. The survey took approximately 2 minutes to complete.

Statistical Analysis

This evaluation study examined the relationship between college graduation timing (the dependent variable interpreted as semesters or years to graduate with a bachelor's degree) and several independent variables: life circumstance (financial, family, service and health), choice of major, choice of college, quality of high school advisement, GPA, gender, and ethnicity. Other variables included full or part-time attendance, summer school attendance, AA course acceptance, advanced placement participation and international baccalaureate participation. See Appendix D for a codebook of each variable used in the study. Statistical analysis included the following techniques listed in order of analysis.

Descriptive Statistical Analysis

Descriptive analysis, consisting of frequency distributions and percentages describe the demographics of the respondents and provide an overview of how respondents answered each question. The demographics of the respondents were also compared descriptively with the overall population of NCS recipients; where appropriate, means and standard deviations are shared for some variables.

Determining Bivariate Association

Where appropriate, the Pearson's chi-square statistic (Wallis, 2010) was used to test for goodness of fit and tests of independence. Goodness of fit tests whether the observed distribution differs from the hypothesized distribution. A test of independence assesses whether paired observations on two nominal or ordinal variables, expressed in a contingency table, are independent of each other or whether they are associated—for example, whether gender and financial hardship are independent of each other. Results were used to show whether there is a relationship between two variables in a contingency table.

Examination of the Bivariate Relationship Between Variables in the Study

A zero order Pearson correlation coefficient (Howell, 2002) was used where appropriate to determine how highly correlated the interval level variables were in this study as well as to determine if any variables are multicollinear. Significant relationships at the .05 level were noted and reported. Correlations between variables that are 0.7 or higher indicating multicollinearity were examined and reported since two variables that

are highly multicollinear often explain the same relationship. Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple-regression model are highly correlated (Howell, 2002).

Multiple-Regression Analysis

Linear multiple-regression analysis (Draper & Smith, 1998) was used to examine the effects of gender, multiple college attendance, full or part time attendance during college, attendance during summer sessions, acceptance of college credit, advance placement and international baccalaureate courses on years to graduation. Although these variables do not include all variables that were examined they met the requirements for regression analysis and some do indeed influence graduation timing. Regression analysis is a statistical technique for estimating the relationship among variables. The focus of regression analysis was on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable changes when any one or more of the independent variables is varied, while the other independent variables are held fixed. Regression analysis estimates the conditional expectation of the dependent variable given the independent variables while also determining which variables explain the most variation in the dependent variable. IBM/SPSS Version 20 was used for descriptive statistics, correlation and regression analysis.

Constant Comparison Qualitative Analysis

Constant comparison analysis technique was used to ascertain patterns that

occurred in the comments shared by participants regarding their experiences with the program. Most questions allowed respondents to make comments. However, only a few questions received a significant number of comments that added meaning and richness to the survey findings. In these cases the comments were collected and analyzed using qualitative analysis.

Summary

This section has explained the methodology used to examine the effectiveness of Utah's NCS program. This study examined cohorts of three consecutive years of NCS recipients and their educational pathways and timing to college graduation. This was an evaluation research project designed to investigate what factors expedite or extend college completion for NCS recipients. The survey asked questions about choice of major, choice of college, time to completion, high school advisement, life circumstances, full to part time attendance, summer attendance, AA course acceptance, multiple college enrollment, advance placement, international baccalaureate, participation and what may have prolonged completion. Student participation in the survey was voluntary and anonymity was assured.

The first eight research questions examined the bivariate relationships between the independent variables and the dependent variable of college graduation timing. Analysis included descriptive statistical analysis. Where appropriate, Pearson's chi-square statistics was used to test for goodness of fit. Zero order Pearson correlation coefficients were used to determine if there is a bivariate relationship between ordinal

and/or interval variables. Linear multiple-regression analysis was used to examine the effects of gender, multiple college attendance, full or part time attendance during college, attendance during summer sessions, AA acceptance of college credit, advance placement and international baccalaureate courses on years to graduation on timing of college completion.

CHAPTER IV

FINDINGS

This evaluation research study addressed whether the NCS decreased the traditional 4-year college completion time for New Century Scholarship recipients. In addition, it examined their career pathways. Institutional Review Board clearance for the study was granted spring of 2012. A survey was then immediately launched by the Utah Systems of Higher Education on June 1, 2012. E-mails were sent to recipients of the NCS who graduated from high school in 2004, 2005, and 2006 that provided a URL with instructions to respond to a survey regarding the NCS. Postcards were sent to recipients with only a physical address. A second request was sent early July 2012. By July 31, 2012, 352 NCS recipients had responded to the electronic survey. This is a response rate of 56%; a response rate that satisfies the requirement for a representative sample.

***N* Size Determination**

Before discussing the findings of the study it is important to clarify why the *N* for the various analyses that were conducted is not 352. It was important for this study to follow the career pathway toward bachelor degree completion of NCS respondents that had completed a minimum of a bachelor degree at an institute of higher education in Utah. Not all of the 352 respondents had completed a bachelor degree. Nine of the 352 respondents did not complete the survey, apparently logging in but not responding leaving a total of 343 completed surveys.

Question 2 asked respondents to specify where they attended higher education. Of

the 343 respondents there were 29 respondents that specified “other college” with a written response. These responses were coded, in-state, out of state and private for profit. Of the 29 responding, 16 of those students attended higher education out of state, 9 attended higher education institutions in-state and four attended in-state private for profit institutions. The nine students attending in-state higher education institutions were included in the study for their respective school they wrote in the comment box. The four attending in-state private for profit institutions were not included in this study as the sample size was too small and it was unclear if they completed a comparable 4-year bachelor degree. The 16 out-of-state responses have been excluded from the survey as the scholarship opportunity is only applicable to Utah students and this research is focused on their experience with the NCS. This leaves an *N* size of 323. This number includes respondents in the three cohort groups, graduating from Utah high schools earning the NCS and attending higher education in Utah’s higher education schools public and nonprofit. Of the 323 respondents, 55 had not finished their bachelor’s degree or had no intention of finishing their bachelor’s degree at the time of this study. Therefore, the *N* size includes only NCS recipients who had completed their bachelor’s degree by July 2012 at Utah public or nonprofit institutions, leaving a total *N* size of 268. Descriptive data and statistical analysis was limited to NCS bachelor degree completers of *N*=268.

The findings for this study are reported in the four sections below. Section one will report the descriptive data, sharing a picture of these scholarship respondents based on their responses to each survey item. Section two will describe the findings of the bivariate analysis and the multiple-regression analysis used to answer the research

questions outlined in Chapter 1. Section three will share comments made by NCS recipients on some of the survey questions and section four will review the overall findings of the study,

Descriptive Data

This section describes participants and their responses for each of the survey questions. A copy of the survey completed by respondents is available in Appendix B.

The demographic information from the respondents revealed that the sample consisted of 52.2% male and 47.8% female, with 94.8% Caucasian, 2.6% Asian, 1.9% Hispanic, and 0.7% Pacific Islander (see Tables 4 and 5). This reflects a similar demographic population as reported by the USHE database on total NCS recipients from 1999-2011, of 44% male and 56% female, with 81.5% Caucasian, 2.4% Asian, 2.7% Hispanic, 0.7% Pacific Islander, 0.4% Black, 0.3% American Indian, 12.0% unknown. A majority of the respondents, 50.7% graduated from high school in 2006, with 28.4% graduating in 2005 and the remainder (20.9%) in 2004. Given numbers in the original pool, graduates from 2006 are somewhat overrepresented. Graduates from 2006

Table 4

Demographic Information

Item	Frequency	Percentage
Caucasian	254	94.8
Asian	7	2.6
Hispanic	5	1.9
Pacific Islander	2	0.7
Total	268	100.0

N = 268.

Table 5

Gender

Item	Frequency	Percentage
Male	140	52.2
Female	128	47.8
Total	268	100.0

N = 268.

represented 44% of the pool of recipients, who received the NCS survey, but represent 50.7% of the respondents who completed the survey. This may have occurred because their contact information was more current than those graduating in 2004 and 2005 and thus they were more likely to receive the survey. Following is Table 6 with the year of high school graduation for NCS respondents earning a bachelor degree.

There were 268 self-reported responses to the question on high school grade point average (GPA). A majority, 66.8%, self-reported their high school GPA to be between 4.0-3.8, with 26.1% between 3.7-3.5 (see Table 7). Remaining respondents had GPAs between 3.4 and 2.3. Many respondents (62.3%) reported taking AP courses while less than 1% reported taking IB courses.

All respondents completing the survey (*N* = 343) attended college after receiving their associate's degree. Respondents were asked to check all institutions of higher education they attended. Of the responses, 27.14% said they attended Brigham Young University, 26.22% said they attended the University of Utah, 20.43% attended Utah State University, 9.45% attended Utah Valley University, 7.01 attended Southern Utah University, 5.18 attended Weber State University (see Table 8). The remaining

Table 6

Year of High School Graduation

Item	Frequency	Percentage
2004	56	20.9
2005	76	28.4
2006	136	50.7
Total	268	100.0

N = 268.

Table 7

Student GPA

Item	Frequency	Percentage
4.0-3.8	179	66.7
3.7-3.5	70	26.1
3.4-3.2	13	4.9
3.1-2.9	5	1.9
2.8-2.6	0	0.0
2.5-2.3	0	0.0
Below 2.3	1	0.4
Total	268	100.0

N = 268.

respondents said they attended Dixie State College, Snow College, and Westminster.

It should be noted that students were asked to check all institutions of higher education they attended. Two hundred thirteen attended only one Utah public or nonprofit college, 48 attended two colleges, 5 attended three colleges, and 1 attended four colleges.

For Question 3, more than two thirds of the respondents (69.4%) report that they did not pursue additional higher education at the institution where they earned their

Table 8

Colleges Attended

Item	Frequency	Percentage
Brigham Young University	89	27.14
University of Utah	86	26.22
Utah State University	67	20.43
Utah Valley University	31	9.45
Southern Utah University	23	7.01
Weber State University	17	5.18
Westminster	9	2.74
Dixie State College	5	1.52
Snow College	1	0.31
Total	328	100.0

N = 328.

associate's degree. One third (30.6%) did pursue higher education at the same institution where they earned their associate's. Comments volunteered by respondents regarding these choices will be shared in section 3 of this chapter.

Question 4 asked about degree completion. Two hundred sixty-eight of the NCS recipients (83.2%) had minimally completed a bachelor's degree (see Table 9) by the time of this study. A master's degree had been earned by 13.8%. Another 3.0% reported having earned a doctorate.

Question 5 asked what year your bachelor degree was completed. Responses on year of attainment ranged from 2006 to 2012 with the highest percentage in 2010 at 18.7%, followed by 2011 and 2012 both with 18.3% and 2009 with 17.9%. Slightly over 26% graduated in 2008 or earlier. Responses to this question will be used in conjunction with the date of high school graduation to ascertain whether NCS expedited graduation.

Table 9

Type of Degree Attainment

Item	Frequency	Percentage
Bachelor	223	83.2
Masters	37	13.8
Doctorate	8	3.0
Total	268	100.0

N = 268.

Question 6 asked about first in family to obtain a bachelor degree. Responses to Question 6, were a strong majority of students (79.9%), were not the first in their family to obtain a 4-year degree. Only 20.1% reported being the first in their family to obtain a 4-year degree.

Question 7 asked students to identify their college majors. Some recoding was necessary for this question as social science was inadvertently left out of the selection so many respondents had to write this in the comment section of the question. The college major with the highest number of responses was STEM (science, technology, engineering, and math; 30.2%), followed by business (19.8%), social science (17.9%), health related majors (11.6%), education (11.2%), and art (6.3%). Three percent of the respondents marked agriculture or national resources (see Table 10). The high percentage in STEM may be related to the ECHS initiative in Utah that has resulted in an increase in graduation requirements in math, science and technology; encouraging students to pursue their higher education in STEM related fields.

Most students, 85.1%, attended school full time with only 14.9% attending part time. When questioned about attending summer school 22.8% never attended summer

Table 10

Bachelor Degree Major

Item	Frequency	Percentage
STEM	81	30.2
Business	53	19.8
Social science	48	17.9
Health	31	11.6
Education	30	11.2
Arts	17	6.3
Agriculture & natural resources	8	3.0
Total	268	100.0

N = 268.

school, 31.7% attended one summer session, 26.5% attended two summers and 19% attended more than two summers.

When asked, “If more than 2 years passed between your associate’s degree and your plans to complete your bachelor’s degree please indicate which of the reasons below are relevant to your experience.” The most frequent marked response was “required additional course work,” followed by “religious service” (see Table 11). This is not surprising in the state of Utah where many young people serve religious missions for the Church of Jesus Christ of Latter-day Saints during their college years. Other checked responses in order of frequency were, “changed major,” “chose to take additional course work,” “work,” “travel,” “family responsibilities,” and “financial.” Very few marked “health” problems, “humanitarian,” or “military” service. Respondents were allowed to check more than one response.

As shown by responses to Question 12 (see Table 12), the majority of the course

Table 11

Reasons for Taking Longer to Complete Bachelor Degree

Item	Frequency	Percentage
Required additional course work	115	27.71
Religious service	103	24.82
Changed major	63	15.18
Chose additional course work	57	13.73
Work	32	7.72
Travel	12	2.89
Family	11	2.65
Finances	11	2.65
Health	7	1.69
Humanitarian	3	.72
Military	1	.24
Total	415	100.0

N = 268.

Table 12

Institute of Higher Education Accepted Course Work Completed for AA Degree

Item	Frequency	Percentage
All courses were accepted	164	61.2
Almost all courses were accepted	77	28.7
More than half accepted	9	3.4
Half accepted	5	1.9
Less than half accepted	6	2.2
Very few accepted	7	2.6
Total	268	100.0

N = 268.

work previously done in obtaining the AA degree was accepted by the institutions of higher education from which respondents graduated. Sixty-one percent of the respondent's indicated that "all courses were applied to their bachelor's degree programs," 28.7% marked that "almost all courses were applied to their bachelor's degree programs." Between these two responses, 89.9% responded that "all" or "almost all" courses completed during the high school AA degree were accepted for credit toward their bachelor's degree.

In answering Question 13, a majority of students (87.3%) reported receiving additional financial aid (grants, loans, and institutional scholarships) beyond the NCS. Only 12.7% reported not receiving additional financial aid.

When asked about the helpfulness of their high school counseling experience in Question 14, a majority of the respondent (68.7%) checked "extremely helpful" or "helpful." "Not very helpful" and "extremely poor" were checked by 31.3% (see Table 13). Respondents' comments for this question will be discussed in section 3 of this chapter.

Respondents were asked to give feedback on how the NCS could be improved in Question 15. Respondents could mark more than one item. By far the most frequently marked item was "better counseling and advisement about the NCS program in high school." This was followed by, in order of frequency, "better informed college advisors regarding the NCS program," "better articulation between concurrent enrollment programs and institutions of higher education," "more rigorous instruction in the concurrent enrollment courses taken for the associate's degree," and "improved communication with parents of students who are in the NCS program" (see Table 14).

Table 13

Was the Counseling You Received in High School Helpful in Earning the Scholarship?

Item	Frequency	Percentage
Extremely helpful	80	29.85
Helpful	104	38.81
Not very helpful	50	18.65
Extremely poor	34	12.69
Total	268	100.0

N = 268.

Table 14

How Could the NCS Program Be Improved? Check All That Apply

Item	Frequency	Percentage
Better high school counseling	168	32.75
Better informed college advisors	100	19.50
Better articulation between PE and HE	97	18.91
More rigorous concurrent enrollment instruction	74	14.42
Improved communication with parents	74	14.42
Total	513	100.0

N = 268.

Respondents' comments for this question will be discussed in section 3 of this chapter.

The respondents for Question 16 were asked if they would recommend the NCS program to other high school students. A large majority (73.9%) responded saying "yes" they would absolutely recommend the scholarship. Another 24.3% marked "yes, but with some reservations." Less than 2% checked "probably not" or "definitely not."

Respondents' comments for this question will be discussed in section 3 of this chapter.

On Question 17, respondents shared that they were “generally satisfied with the major they selected for their AA degree.” Approximately 80% (81.3%) checked “very satisfied” or “somewhat satisfied.” There were 14.6% who checked “satisfied” and 4.1% checking “unsatisfied” (see Table 15). Respondents’ comments for this question will be discussed in section 3 of this chapter.

According to responses on Question 18, a majority of respondents are currently employed with 80.6% checking “yes” and 5.2% checking “no, but currently seeking employment.” The remaining respondents (14.2%) selected “not seeking employment at this time.” (Tables 16 and 17 show career employment and career satisfaction responses.)

Table 15

Satisfaction With AA Selection

Item	Frequency	Percentage
Very satisfied	155	57.8
Somewhat satisfied	63	23.5
Satisfied	39	14.6
Unsatisfied	11	4.1
Total	268	100.0

N = 268.

Table 16

Are You Currently Employed?

Item	Frequency	Percentage
Yes	216	80.6
No, currently seeking employment	14	5.2
No, not seeking employment	38	14.2
Total	268	100.0

N = 268.

Table 17

Are You Satisfied With Your Career Selection?

Item	Frequency	Percentage
Yes, definitely	162	60.5
Yes, generally satisfied	84	31.3
Somewhat satisfied	18	6.7
Not satisfied	4	1.5
Total	268	100.0

N = 268.

Judging from the responses to Question 19, the respondents appear to be quite happy with the careers they selected. The vast majority of respondents (91.8%) marked that they were “definitely” or “generally satisfied” with their career selection. However, when asked in Question 20 if respondents were employed in their career areas in where they completed their most recent degree only 61.2% responded “yes.” Almost one third of the respondents (27.6%) responded “no” and 11.2% checked “not applicable.”

Question 28 was an open ended question for NCS respondent’s to offer any comments they would like to make. There were 152 (6 wrote “no comment”) or 44% of respondent’s commenting on their experience with the NCS. A majority (88%) of the comments were very positive and complimentary of their NCS experience. Seven percent made comments on their counseling experience which in most cases was negative. Respondents’ comments for this question will be discussed in section 3 of this chapter

Statistical Analysis

This section will examine the research questions and interpret the findings as

gathered in the survey. All calculations computed for the statistical analysis were done using IBM/SPSS Version 20. Following are the nine research questions used in this study.

1. Did the NCS expedite college graduation?
2. What life circumstances (i.e., financial, service, family, or health) were related to college graduation timing of NCS recipients?
3. Was the choice of major related to college graduation timing of NCS recipients?
4. Was the choice of college institution selected related to college graduation timing of NCS recipients?
5. Was the quality of high school advisement related to college graduation timing of NCS recipients?
6. Was grade point average (GPA) related to college graduation timing of NCS recipients?
7. Was gender related to college graduation timing of NCS recipients?
8. Was ethnicity related to college graduation timing of NCS recipients?
9. What variables most influenced college graduation timing?

Chi-square analysis was conducted where nominal or ordinal data was measured to determine if there was an association (Nicol & Pexman, 2007). A *t*-test analysis or correlation analysis was conducted on interval variables to determine if there were relationships between independent variables and the dependent variable. A multiple-regression was run for research Question 9 on the variables expediting college

completion. The appropriate tests will be identified for each question. The final question was assessed using multiple-regression.

Definition of Years to Graduation for this Study

This study examined what influences graduation rates for NCS recipients. Traditionally, college completion with a bachelor's degree has required 4 years. Complete College America's (CCA, 2009) latest calculation version has done extensive research on college completion rates across the nation. Their research indicates that the national average in years to completion of a bachelor's degree is 4.7 years. According to CCA, a full-time student in Utah completing a bachelor's degree takes an average of 6.7 years. CCA calculated the chronological amount of time from high school graduation to bachelor degree completion when they compute this figure not seat time.

Chronological time begins at high school graduation. All time between high school graduation and bachelor degree completion is counted. Seat time only counts the semesters the student is actually enrolled in higher education. Working and not attending school would be counted in chronological time, but not in seat time. It is documented in the survey results that a significant percentage of NCS recipients 103 (38.4%) took additional time to complete their degree because of religious service. This is common in Utah, especially for men, but also for some women. According to documents published by The Church of Jesus Christ of Latter-day Saints (LDS Mission, 2012) men's religious service is 24 months or 2 years and women's religious service is 18 months or 1.5 years.

Calculation for Religious Service

The CCA (2009) calculation for Utah is 2 years longer than the national average. This may be due to so many young adults completing religious service (LDS Mission, 2012). In order to make comparisons and draw similar degree completion conclusions for men and women in this study both LDS and non-LDS, the recipient's response on bachelor degree completion that checked religious service as a reason extending their bachelor's completion have been adjusted. Each male checking religious service has 2 years subtracted from degree completion time. Each female checking religious service has 1½ years subtracted from degree completion time. This is how the researcher calculated the dependent variable for males and females checking religious service.

Research Questions: Analysis

Research Question 1: Did the NCS expedite college graduation?

NCS did expedite college graduation. The average for NCS graduates in this study was 3.57 years indicating the NCS did expedite college graduation. The mean was calculated from a base using recipient's high school graduation year and bachelor completion year minus time for those engaged in religious service (see Table 18).

The original intent of the NCS by Governor Leavitt in 1994 was to graduate students with a bachelor's degree earlier, possibly as early as 2 years duration (see Table 19). Only 16.1% graduated in two years or less, with an additional 31.9% in three years and 37.1% in 4 years equaling a total of 85.1% graduating in 4 years or less. There were 14.9% of respondents that took 5-8 years to graduate with their bachelor's degree.

Table 18

Time to Graduation

Item	Mean	SD
Time to completion	3.5709	1.17105

N = 268.

Table 19

Years to Graduation

Item	Frequency	Percentage	Cumulative
Two years or less	43	16.1	16.1
Three years	85	31.9	48.0
Four years	99	37.1	85.1
Five years	22	8.2	93.3
Six years	14	5.2	98.5
Seven years	3	1.1	99.6
Eight years	1	0.4	100.0
Total	267	100.0	100.0

Note. Missing value = 1.

Research Question 2: What life circumstances (i.e., religious service, required additional course work, changed major, chose additional course work, work, family, finances, travel, health, humanitarian or military) were related to college graduation timing of NCS recipients?

Respondents were asked to check what life circumstances extended their time to bachelor degree completion. All respondents could check more than one response to this question, thus the number of responses each category received was recorded.” Required additional course work” (42.9%) was the category most often checked followed by

“religious service” (38.4%) and “changed major” (23.5%). Other responses identified were “chose to take additional course work” (21.3%), “work” (11.9%), “travel” (4.5%), “family” (4.1%), “finances” (4.1%), “health” (2.6%), “humanitarian” (1.1%), and “military” (0.4%).

Multiple response analysis was run on these research questions cross tabulating by gender. When the analysis was run by gender there were differences in life circumstances (see Table 20).

Males were more likely than females to choose “religious service” as a reason for extending their bachelor degree completion. Both males and females indicated

Table 20

Life Circumstances by Gender

Item	Male (<i>n</i> = 140)		Female (<i>n</i> = 128)	
	# of responses	%	# of responses	%
Required additional course work	68	25.56	47	31.50
Religious service	101	37.96	2	1.34
Changed major	29	10.90	34	22.80
Chose additional course work	30	11.30	27	18.10
Work	18	6.80	14	9.40
Travel	4	1.50	8	5.40
Family	3	1.12	8	5.40
Finances	7	2.60	4	2.70
Health	3	1.11	4	2.70
Humanitarian	2	0.75	1	0.66
Military	1	0.40	0	0.00
Total	266	100.00	149	100.00

N = 268.

“required additional course work,” “changed major,” and “chose additional course work,” were most likely to delay degree completions. Males chose “work” more than females and females chose “family” more than males.

Research Question 3: Was the choice of major related to college graduation timing of NCS recipients?

The answer to this research question was yes, college major does make a difference. NCS recipient’s average time to completions ranged from 2.8 years in agriculture and natural resources to the longest amount of time for STEM related majors of 3.9 years to completion (see Table 21).

Students were able to complete degrees in agriculture, art, education, social science and business in 3.5 years or less. Students in health and STEM took slightly longer, but still, on average completed before 4 years.

Table 21

Does College Major Make a Difference in Time to Completion?

Item	<i>n</i>	# Male	# Female	Mean	<i>SD</i>
Agriculture and natural resources	8	2	6	2.81	1.31
Arts	17	3	14	3.17	0.88
Education	30	6	24	3.36	0.99
Social science	48	18	30	3.40	1.31
Business	53	32	21	3.50	1.15
Health	31	14	17	3.64	1.14
STEM	81	65	16	3.91	1.15
Total	268	140	128		

There are differences in gender when it comes to major selection. In order to run a chi-square calculation between years to graduation and gender, years to graduation needed to be collapsed into workable categories which reflected the number of years reported. For this question years to graduation were collapsed into four categories: 0-2 years, 3-3.5 years, 4-4.5 years, and more than 5 years. This association was significant ($p = .045$, $df = 18$, chi-square 29.312). There are more males selecting majors in business and STEM, while females outnumber males in arts, education and social science.

Research Question 4: Was the choice of college institution related to college graduation timing of NCS recipients?

The answer to this question was yes, refer to means Table 22. The institutions taking the least amount of time to completion of a bachelor's degree listed in ascending order by means were Westminster (2.78 years), Utah State University (3.48), Southern Utah University (3.52), Weber State University (3.58), and Brigham Young University

Table 22

Does College Institution Make A Difference In Time To Completion?

Item	Frequency	Mean	SD
Westminster	9	2.78	1.71
Utah State University	67	3.48	1.22
Southern Utah University	23	3.52	1.12
Weber State University	17	3.58	1.06
Brigham Young University	89	3.59	1.00
University of Utah	86	3.72	1.31
Utah Valley University	31	4.00	1.15
Dixie College	5	4.20	0.84
Total	327	3.57	

(3.59). The institutions taking the most time to completion were the University of Utah (3.7) and Utah Valley University (4.0). Two institutions recorded 5 and 6 years to completion, but the observations were too small to report, $p = .000$, $df = 10$, chi-square = 31.841.

Students were asked to check all higher education campuses they attended. Eighty percent of students attended only one institute of higher education, 17.9% attended two, 1.8% attended three, and one student attended four (0.3%) campuses. A shortcoming of this study was if students attended more than one campus it was unknown from which campus they obtained their bachelor's degree.

There was a trend for years to graduation to increase with the number of colleges attended. As shown in Table 23 students attending one college completed in 3.5 years, but a student attending more than one college tended to take longer to complete their degrees.

Students attended between one to four colleges while receiving their bachelor's degree. There were differences between males and females. For females 84.4% of females only attend one college, while 75.7% of males only attend one college (see Table 24).

Research Question 5: Was the quality of high school advisement related to college graduation timing of NCS recipients?

The answer to this questions was no. Quality of advisement and counseling was not significant in this study. A chi-square analysis was calculated at $p = 0.452$, $df = 30$, chi-square 30.261. The responses on this question were varied. There was no association

Table 23

Mean to Graduation When Attending One or More Colleges

Item	<i>n</i>	Percent	Mean	<i>SD</i>
One college	213	79.86	3.51	1.15
Two colleges	48	17.91	3.67	1.17
Three colleges	5	1.86	4.80	1.48
Four colleges	1	.37	5.00	—
Total	267	100.0		

Missing value = 1.

Table 24

Attending Multiple Colleges by Gender

Item	Male %	Female %
One college	75.7	84.4
Two colleges	22.1	13.3
Three colleges	1.4	2.3
Four colleges	.8	0.0
Total	100.0	100.0

between years to completion and advisement. Some students checking extremely helpful (30.0%) took 5 to 7 years to complete their degree with the most completing in 3 to 4 years. Some students checking extremely poor (12.7%) completed in 2 to 4 years. Overall, 69.0% of respondents reported their counseling experience was “extremely helpful” or “helpful” (see Table 25).

Research Question #6: Was grade point average (GPA) related to college graduation timing of NCS recipients?

Table 25

Crosstabulation Years to Graduation and Counseling

Item	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years
Extremely helpful	2	13	22	31	8	3	1	0
Helpful	1	14	37	37	7	6	2	0
Not very helpful	0	5	20	17	4	3	0	0
Extremely poor	0	8	5	14	1	3	2	0
Total	3	40	84	99	20	15	5	0

$N = 266.$

$p = .452.$

$df = 30.$

Chi-square = 30.261.

Missing values = 2.

The answer to this question was no. There was no association between self-reported high school GPA and years to graduation. While a high GPA is an indicator of academic success, there was no relationship between GPA and bachelor degree completion time in this study (chi-squared association value $p = 1.0$, $df = 40$, chi-square = 16.539). There were 179 of 268 (67%) respondents who self-reported reported their high school GPA to be between 4.0-3.8. Seventy (26%) students reported a GPA of 3.7-3.5. Only 19 (7%) students reported a GPA below 3.5.

Research Question #7: Was gender related to college graduation timing of NCS recipients?

An independent sample t test at .05 indicated that the relationship between gender and years to graduation is statistically significant ($p = .000$, $df = 265$, $t = 3.789$; see Table 26). A t test was used to determine whether a sample mean differs from a theoretical underlying distribution or whether two samples differ significantly from the other NCS recipients in this study (Nicol & Pexman, 2007). Females completed their degree earlier

Table 26

Independent Samples t-Test Table for Gender

Years to graduation for males and females	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>
Males and females	.52	.14	265	3.789

$p = .000.$

$df = 265.$

$t = 3.789.$

than men. When rates were adjusted for religious service for gender the mean for males was 3.83 and the mean for females was 3.31 (see Table 27).

Research Question 8: Was ethnicity related to college graduation timing of NCS recipients?

The respondents in this study were not ethnically diverse. There was no way to collapse groups in order to run the analysis because Caucasians were 94% of the total population of this study. All other ethnic groups combined totaled 14 students (6%). This is representative of the population in the NCS program according to USHE (2012b). Of the 268 students completing their bachelor's degree, 94% were Caucasian, 2.6% were Asian, 1.9% Hispanic, and 0.7% Pacific Islander.

Research Question 9: What variables most influenced college graduation timing?

This questions purpose was to determine which, if any, of the independent variables that were deemed important in earlier analysis were significantly related to college graduation timing. In other words, based on the variables in the regression equation, which variables most influenced college graduation timing? Seven variables were entered into the regression equation. They were gender, attending multiple colleges, full or part-time status, attending summer school, AA course acceptance, advanced

Table 27

Gender and Years to Graduation

Item	<i>N</i>	Mean	<i>SD</i>
Male	139	3.83	1.12
Female	128	3.31	1.13
Total	267		

Missing value=1.

placement courses taken, and international baccalaureate courses taken. With the analysis we have calculated we were able to determine that three variables were significant.

College major, college selection and gender were related to time to college completion.

College major and college selection are categorical variables. We also know that the quality of high school counseling, life circumstances and GPA do not make a difference in time to college completion. Ethnicity totals were too small to run the analysis. We also have determined that 83% of NCS recipients in this study did complete their bachelor's degree. These NCS recipients did so in less than 4 years at an average of 3.57.

Multiple-Regression Results

Since we have already assessed the relationship of several variables we know their relationship to the dependent variable. Linear multiple-regression analysis was used to examine the effects of gender, multiple college attendance, full or part time attendance during college, attendance during summer sessions, AA course acceptance, advance placement and international baccalaureate courses on years to graduation. Although these variables do not include all factors that were examined they met the requirements for regression and some do indeed influence graduation timing.

Regression analysis is a statistical technique for estimating the relationships among variables. The focus of regression analysis is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable changes when any one or more of the independent variables is varied, while the other independent variables are held fixed. Regression analysis estimates the conditional expectation of the dependent variable given the independent variables while also determining which variables explain the most variation in the dependent variable (Draper & Smith, 1998).

In order to determine what other variables most influenced timing to bachelor degree completion three multiple regressions were run, one for all participants in the study ($N = 268$), one for males ($N = 140$), and one for females ($N = 128$).

Multiple-regressions: All participants. When the regression was calculated for the entire population three variables were significant in predicting college graduation timing. They were: (a) gender ($t = 3.228, p = .001$), (b) full or part time ($t = 2.912, p = .004$), and (c) AA course acceptance ($t = 3.994, p = .000$). The regression equation explained approximately only 13% of the variation in college graduation timing ($R^2 = .132$). Although only 13% of the variation in college graduation timing is explained, the equation was none the less significant at the .01 level ($F = 6.764, p = .000, df = 266$; see Table 28).

Multiple-regressions: Males. When the regression was calculated for males only one variable was significant in predicting college graduation timing, AA course acceptance ($t = 3.472, p = .009$). The regression equation explained approximately 12%

Table 28

Regression Analysis Summary for the Entire Population in the Study

Variable	<i>B</i>	<i>SE</i>	Beta	<i>t</i>	Sig.
Years to graduation (constant)	3.67	1.552		2.367	.019
Gender	-.440	.136	-.191	-3.228	.001**
Multiple colleges	.238	.140	.101	1.706	.089
Full or part time	.497	.171	.171	2.912	.004**
Summer school	.041	.065	.037	.628	.531
AA course acceptance	.245	.061	.234	3.994	.000**
AP	.191	.140	.080	1.363	.174
IB	-.535	.767	-.040	-.698	.486

$p = .000.$

$df = 266.$

$R^2 = .132.$

$F = 6.764.$

** $p < .01.$

of the variation in college graduation timing ($R^2 = .120$). Although only 12% of the variation in college graduation timing was explained, the equation was none the less significant at the .01 level ($F = 3.010$, $p = .009$, $df = 138$; see Table 29).

Multiple-regressions: Females. When regressions were calculated for females, three variables were significant in predicting college graduation timing: (a) multiple colleges ($t = 2.592$, $p = .011$), (b) full- or parttime attendance ($t = 3.258$, $p = .001$), and (c) AA course acceptance ($t = 2.682$, $p = .008$). The regression equation explained approximately 20% of variation in college graduation timing ($R^2 = .204$). The regression explained more variation for females than for males. Like the results for males, the regression was significant at the .01 level ($F = 5.173$, $p = .000$, $df = 127$; see Table 30).

Summary Regression Results

The three regression analyses provided important information for this analysis. Each regression revealed significant variables for their respective populations.

Table 29

Regression Analysis Summary for the Males in the Study

Variable	<i>B</i>	<i>SE</i>	Beta	<i>t</i>	Sig.
Male (constant)	2.569	2.166		.724	.470
Multiple colleges	.039	.181	.018	.215	.830
Full or part time	.259	.226	.098	1.149	.253
Summer school	-.079	.094	-.071	-.836	.405
AA course acceptance	.275	.079	.290	3.472	.001**
AP	.370	.204	.150	1.815	.072
IB	.567	1.090	.043	.520	.604

$R^2 = .120$.

$df = 138$.

$p = .009$.

$F = 3.010$.

** $p < .01$.

Table 30

Regression Analysis Summary for the Females in the Study

Variable	<i>B</i>	<i>SE</i>	Beta	<i>t</i>	Sig.
Female (constant)	3.599	2.136		1.685	.09
Multiple colleges	.552	.213	.216	2.592	.011*
Full or part time	.837	.257	.275	3.258	.001**
Summer school	.135	.087	.129	1.549	.124
AA course acceptance	.256	.096	.222	2.682	.008**
AP	.081	.187	.036	.430	.668
IB	-1.365	1.053	-.107	-1.296	.197

$R^2 = .204$.

$df = 127$.

$p = .000$.

$F = 5.173$

* $p < .05$.

** $p < .01$.

AA course acceptance. First, AA course acceptance was an important predictor of college graduation timing in all three analyses. In the regression analysis for all respondents AA course acceptance was one of three significant predictors of college graduation timing ($p = .000$). In fact, it was the most important predictor ($\beta = .234$). For males AA course acceptance was the only significant predictor ($\beta = .290, p = .001$). Finally, for females it was one of three important predictors ($\beta = .222, p = .008$).

Attending full- or part time. Attending college full time or part time was a significant predictor. Attending college full time was significant for all respondent's as well as in the regression for female respondents (all respondents: $\beta = .171, p = .004$); female respondents ($\beta = .275, p = .001$).

Gender. Gender was an important predictor of college graduation timing. The regression analysis for all respondents indicated this as well as our descriptive and bivariate analyses. The regression for all respondents indicated that gender was a significant predictor of college graduation timing ($\beta = -.191, p = .001$). This is why a regression was calculated for males and then for females. The investigation revealed a different pattern for both genders.

Survey Comments

Many of the 2004-06 NCS recipients in this survey took time to make responses on the survey. Comment sections were available for nearly all of the questions. This section focuses on the comment section of several of the survey questions where the responses help develop a better understanding of their experiences as a NCS recipients.

The comment section will include responses from all individuals completing the survey ($N = 343$).

Survey Question 3 Comments

The first comment section to be discussed is for Question 3: *Did you work on your bachelor's degree at the same institution of higher education where you earned your associate's degree?* There has been an assumption that concurrent enrollment students matriculate to the institute of higher education where they earned their AA degree. As mentioned in part one of this chapter. Nearly 70% did not pursue their bachelor's degree at the same institution where they earned their AA degree. Of the 343 students who completed this section, 124 took the opportunity to make a comment about their selection.

Using the constant comparison analysis technique, three major categories of responses emerged from the comments made in this section. The three categories were: (a) I wanted a 4-year school, (b) I wanted a different school, and (c) I wanted greater course offerings.

Forty-four respondents made comments about wanting to enroll in a 4-year school. A few typical response from this category were, "Transferred to Utah State out of the community college," "The school did not offer a bachelor's program," and "SLCC did not offer a bachelor's program."

Another major reason given in the comment section about not attending the school where I earned my AA degree was "I wanted greater course offerings." Thirty-two respondents specifically mentioned the need for more course offerings. Here are a few of

the students' comments. "The program I wanted to study wasn't available at my first college selection," "They don't have a bio-medical engineering program," "Didn't have the courses I wanted," and "The degree I was seeking was not offered."

The last category of responses on question three about AA schools versus bachelor degree completion school selection was "wanted a different school." Thirty respondents made specific mention that they switched because they wanted to go to a different school. Some of the students responses were, "I wanted a different school," "I wanted to go to a different school and try new things," "I had some friends I wanted to be around at BYU."

The remaining eight comments were sprinkled across issues like "I moved" "cheaper tuition," and "institution accepted my AA credit." There were not sufficient numbers of comments in any one of these areas to create a theme.

Survey Question 14 Comments

Question 14 in the survey asked if the counseling received in high school was helpful to earning the NCS. Sixty-two respondents took the opportunity to make comments. Although a majority of students (68.7%) checked "extremely helpful" or "helpful," there was still 31.3% checking "not very helpful" or "extremely poor." This is over 30% of students checking they had a "not very helpful" or "extremely poor" counseling experience. Thirty-nine of the 62 comments made on this item came from students who experienced poor or negative counseling. Eleven of these 39 comments included mention of family members (particularly moms) and friends (or family friends) being of more help than high school counselors. Another seven mentioned receiving

stronger counseling from their higher education institution, specifically mentioning “Weber State,” “UVU,” and “SLCC.” The remainder of comments from those with poor counseling experiences clarified their survey rating with more specific information. Some respondents mentioned that their counselors used poor judgment in advising students with college and career choices by making comments as “My counselor told me I wouldn’t be able to complete it in the time I had,” “My counselor from high school was more than useless,” “Counselor discouraged and didn’t inform,” “I had to fight against my school counselor in order to do the coursework to earn it in the first place,” and finally, “The school counselors weren’t helpful, but the program was great.”

Survey Question 15 Comments

Survey question 15 asked how the NCS program could be improved. Students were allowed to check any that apply. There were 50 comments made in this section. Of the comments made, 30 were about high school counseling problems.

Some of the written student counseling problems were, “I figured most of the classes and course work on my own, the UVSC distance counselors were much more helpful than the high schools counselors,” “The program needed more tools and resources for students to understand exactly what was required to earn the degree. I would love to see more structure and guidance available for students with necessary qualifications to participate in the program,” “I think the scholarship is wonderful and perfect for excelling driven scholars, however I caution towards pushing this scholarship on high school students who are unprepared for the rigor of college,” and finally, “Counseling needs to focus on life after NCS so that students are advised to take classes that will actually help

them in their bachelor degree program.”

Isolated comments included such things as “It’s become more difficult for students to obtain the NCS by limiting when they can begin taking classes and which classes are available. NCS could be improved by making it possible for more students to obtain it. It made the world of difference to me and my education. I can’t imagine the setback I would have had without having my associates when I did,” “It was the best opportunity I ever had,” and “I think the colleges are well informed about the NCS, but high schools don’t really push it. I was taking concurrent enrollment and ed-net classes broadcast so I wouldn’t have to pay for them once I went to college. I feel pretty blessed to have had someone tell me about the NCS. It saved my family and me quite a bit on money.”

Survey Question 16 Comments

On question 16, “*Would you recommend the NCS to other high school students?*” Seventy-four percent of the respondents checked “yes, absolutely,” they would recommend the NCS program to high school students. The other 26% checked “yes, but with some reservations,” “probably not,” or “definitely not.”

This survey question had 51 comments written by respondents. Twenty of the written comments were very positive about their experience and supported the strong positive response to the survey item itself. However, there were 31 comments written that included reservations about recommending the program. These NCS recipients’ written comments expressed concerns about rigor, motivation, and post-secondary maturity too early in life. The student’s comments mentioned concerns that students were not prepared

for the rigorous expectations of the NCS program. Examples of their comments were, “My only reservation is for students that are less motivated. It takes a certain level of motivation and hard work to achieve,” “Not everyone wants or should spend 2 years during high school finishing an associate’s degree. I would recommend it to those who have the desire, but if people don’t have the desire, then they shouldn’t because it could set them up to hate college for life,” “Students who try for the scholarship need to have a level of maturity and willingness to put in the extra effort,” and “It was a lot of work and looking back did not benefit me other than the scholarship money.”

In summary, the students checking “yes, but with reservations,” or “probably not,” generally had concerns about the rigorous experience required to achieve the NCS. Their comments appear to be more concerned for others and not for themselves. Their comments generally indicated they would still complete requirements for the NCS, but are not sure they would recommend it to others that may not be prepared for the commitment and rigor of the program. The one person marking “probably not” did not make a comment.

Survey Question 17 Comments

Responses to Question 17, “*Were you satisfied with the major you selected for your AA degree?*” were informative in that they shed light on the lack of AA major choices available to these respondents when they were in high school. As reported in section 1, most respondents were “very satisfied,” “somewhat satisfied,” or “satisfied,” with their AA major. Only about 4% on both the $N = 268$ and $N = 343$ checked unsatisfied with their AA major. Interestingly, however, is in 40 comments made 29

respondents mentioned they did not have a choice of AA selection. Many students never knew they had options with their AA degree selection and thought taking general education classes were their only option. It is possible that for some rural and remote high schools concurrent enrollment options are very limited.

Comments written by the students were, “I didn’t know you could choose anything other than general studies,” “I really had no choice in the major for my Associates, I just got generals done.” “The focus of the charter school I attended was for biotechnology. It would have been great if there were more charter schools and majors to choose from,” “I wasn’t sure I could choose a major,” and “I wish my classes could have been applied towards engineering.”

The student comments on this question may come back to counseling/advisement or class choice options. Maturity and direction may also play a roll. Whatever the case there were 29 respondents who mentioned they were unaware about options for AA degrees other than general education courses.

Survey Question 28 Comments

The final question of the survey asked NCS respondents to share comments about the NCS program. There were 152 (43%) respondents taking time to comment, although six of those wrote “no comment” or left the space blank, leaving 146 responses. Many of the responses were very lengthy at 150+ words. The two strongest themes that emerged were that the NCS was a great/good program and the need for better counseling. A few students also mentioned restore funding, needs to be a stronger preparation for college, students need more time to complete the NCS, and there should be more course offerings.

However, the frequency of the later mentioned responses were in single digits. Therefore, only the two major themes will be discussed below. Due to the fact that students' comments were so lengthy, they often, as shown below, mentioned both themes in their comments.

The second most prevalent theme was "better counseling." Of the 146 valid responses, 27 students mentioned the need for better counseling. Of the 27 mentioning the need for better counseling, these comments tended to be couched within an overall positive evaluation of the NCS program. Following are some of the responses mentioning the merits of the program, but problems with counseling. "It is a great program, but never would have completed it without the help of my mom. My younger brother did the program 3 years later and had the same problem at a different school. Thanks to Jane Doe (pseudonym) my counselor at UVU, she was amazing." "I knew before going to college that I was going to be 100% responsible for paying for it. The NCS helped me get through my bachelor degree with no student loans. I would highly recommend this scholarship to anyone. I do wish my high school counselor would have been more knowledgeable about the scholarship, had I not heard about the scholarship from a neighbor at the time I would have never known about the NCS. Aside from those problems I was very satisfied with the program." "It's really helpful, but there needs to be more communications between the students, programs and universities. The only time I ever was contacted by the program was because my transcript hadn't been sent to them and for this survey."

The final part of the comment section will focus on the theme mentioned with the

highest frequency on the last question “the NCS was a great program.” Within the 146 responses on this question, it was mentioned 129 times. The comments were overwhelmingly positive about their experience with the NCS program, in some cases life altering. Many shared they were able to get their bachelors without student debt and at an accelerated rate. Here are some of their comments. “The NCS helped me so much. I regret not thanking anyone at the time for the generous money that helped me with my last couple years of school. Thank you for assisting me in completing school with help from the NCS.” “The NCS was absolutely instrumental in reaching my career goals, because I completed early I also earned a master’s degree.” “This scholarship was awesome for providing assistance for earning my BS degree.” “It was well worth the extra effort in high school, because it allowed me to get through most of my remaining college without loans. Wonderful program!” “This program is amazing and I hope that it will continue to be offered, I would not have been able to finance my education without it. It was a lifesaver.” “This was the only way I could have afforded my BA.” “A lot of classes are being taken away, making it harder for students to get their associates now. More classes should be made available for them. The scholarship helped a ton and it put me ahead in school.” “The scholarship absolutely changed my educational trajectory, completing a master’s and getting ready for a doctorate.” “Thanks for helping me get through college! Neither of my parents are college graduates and I come from a family of seven, so there was no support from them in paying for my schooling. I have a wonderful job and was able to get my master’s degree at the age 21,” “I never would have finished college without doing this. It saved me so much time and money. I would go back and do

it all over again.”

These comments continue. The comments from these NCS recipients on this last question reflect the overall positive findings for this survey regarding the value of the NCS program.

Summary of Findings

This was the first study on the NCS program. It was the intent of the researcher to share information on the NCS program and to ascertain whether or not it is accomplishing its intended purpose. This section of Chapter IV highlights the major findings of this study.

The total number of recipients in the 3-year cohort groups (2004-2006) in the study was 613. There were 343 recipients who completed the survey. The total number of respondents completing the survey who had completed their bachelor degree was 268. From this sample, 83% of the recipients went on to complete their bachelor's degree and some even completed masters and doctorate degrees. This is a high graduation rate.

The most important finding of this research is that the NCS does expedite college graduation. It may not be as soon as 2 years to bachelor degree completion, but it is on average less than 4 years or the CCA (2009) national average calculation of 4.7. After adjustments are made for religious service, time to graduation was less than the national mean (mean = 3.57 versus the national mean of 4.7). Females tended to graduate earlier than males even after time out for religious service was adjusted. There was not sufficient variation in the pool of respondents to examine ethnicity as an independent variable.

The research questions also provide information to future NCS recipients about major and selection of college. NCS recipients were able to complete their degrees even earlier depending on major chosen and college selection. NCS recipients majoring in STEM, health related, or business fields took longer to complete college than those majoring in other fields such as the social sciences, education, and the arts. Depending on the selection of major NCS recipients could finish their bachelor degree a year or more sooner. Notably there were differences in major selection by gender. Females were more likely to select education, arts, social science and health as majors.

The largest number of respondents attended BYU followed by the University of Utah, Utah State University, Utah Valley University, Southern Utah University, Weber State University, Westminster, and finally Dixie. With respect to difference in time to completion based on what college was attended, the school with the shortest time to completion was Westminster (2.7 years) followed by USU (3.4 years), but, even attending BYU (3.5 years), or the University of Utah (3.7 years) expedited earlier graduation. According to this study Utah Valley University graduates completed in 4 years, which is still sooner than the national average. Since the NCS scholarship is redeemable at all public institutions and nonprofit institutions in the state to include BYU and Westminster, students should consider which institution may give them the best advantage or positioning with respect to early completion.

A number of NCS recipients attended multiple institutions to complete their bachelor's degree. Males were more likely to attend more than one college than females. Attending multiple colleges was significant in the multiple regressions for females. For

males and females, the more institutions of higher education attended, the longer the time to bachelor degree completion.

A majority of the NCS recipients in this study attended school full time (85.1%). This was a significant variable in the regression for total population and females. Attending school full time facilitated early completion of college for NCS recipients.

Interestingly, only 31% pursued a degree at the same institution where they earned their associate's degree. This is likely due to the fact that several institutions in the state that were popular with the respondents do not offer an AA degree. Thus, students were not able to take credit at their high schools from these institutions.

AA course acceptance as a factor in expediting graduation was found to be significant in the multiple regressions run for total population, males and females. While most respondents reported that they were successful in getting their AA courses accepted into their bachelor's degree program, the greater the success the more quickly they tended to graduate. AA course acceptance may be a particularly important variable to consider when selecting a college.

In this study, variables that did not make a difference in time to completion for male and female NCS recipients were high school GPA, quality of high school counseling and many of the life circumstances that were explored (i.e., changed major, chose additional course work, work, family, finances, travel, health, and military).

With respect to reasons for delays in graduation that were reported by recipients, the most frequent reason for delayed graduation was religious service for men. Religious service did extend college completion for males by a minimum of 1.44 years. The need

for additional required course work was the most frequently reported reason by women (this was also high for men as well). Differences in the reporting of life circumstances that delayed graduation was statistically significant by gender.

In conclusion, the NCS program does expedite college completion. It is also worth noting that the NCS program respondents in this study had a very high graduation rate of 83%. Variables that were associated with expedited bachelor degree completion are gender, major, college selection, attending school full time, attending only one college, and AA course acceptance toward bachelor's degree programs. If policy makers are looking for a program that increases college completion, they may want to focus on the NCS.

CHAPTER V

DISCUSSION

This research study was about the NCS program. This is a scholarship given to students at high school graduation upon earning an AA degree. The rationale of the program was to expedite bachelor degree completion in less than the usual 4 years to BS completion.

This chapter is divided into four parts. The first part discusses research questions and interesting patterns that surfaced in the analysis. The second part discusses possible improvements and areas of commendation in the NCS program. The third part of this chapter looks at implications for future research. The last section looks at the future of the NCS program in Utah, policy implications for the governor, legislators and other policy makers.

Research Question Variables and Interesting Patterns

In the first section of this chapter, the researcher would like to draw attention to some of the data collected or patterns established. Discussion of the information will inform policy makers on program improvement, but many are personal convictions on the impact of personal success with the scholarship and their degree attainment.

What Life Circumstances Relate to College Graduation Timing of NCS Recipients?

The three reasons NCS recipients checked that extended time to college completion were: religious service, degree in my major required additional course work,

and changed my course of study or major. These were the strongest by a wide margin. Finances did not appear as a significant reason for delayed graduation in this study. This is surprising since according to USHE (2011b) finances are the number one reason students take more time to complete or drop out. A high percentage of students in this study (87.3%) received additional financial aid beyond NCS. Perhaps the additional financial aid with the NCS assisted these students in completion so that working or dropping out were not necessary for these NCS students.

The additional financial aid may have worked as an incentive not just for tuition, but also because there is an expiration time limit if the degree is not completed by a certain time or in the case of the NCS 5 years. It could have been that more financial aid means they also had more time to commit to going to school as they did not have to seek out employment.

Was the Choice of Major Related to College Graduation Timing of NCS Recipients?

For this group of NCS recipients major selection made a difference in time to completion. There were also differences in time to completion by gender. It could be that females were more likely to complete earlier than males because they chose majors (art, education, and social science) that allowed for quicker completion. Males were more likely to major in business and STEM both of which seemed to lead to longer completion times.

The good news, STEM majors in the NCS program are at a greater percentage than would be expected when compared to peer groups. More students in this study were

in STEM than other majors.

Although STEM majors took the longest time to complete, they still completed in less than the traditional 4 years. This may be because there were more prerequisites for their major, more coursework in general education, or the course work required for their major is less demanding. The shortest time to completion selected majors in agriculture and natural resources (2.8), arts (3.2), and education (3.4).

Was the Choice of College Related to Graduation Timing of NCS Recipients?

A great success of the NCS program in this study would be the high number of students with a bachelor's degree (83%). When compared to students who are not NCS recipients, but have a similar high school GPA, generally the percentage is 28%, as reported by USHE (2010a). Granted these students are highly motivated to begin with as they have had the motivation and fortitude to complete an AA as part of their high school studies. Still, this high rate of college completion is an important outcome of this study and must be shared with policy makers working to improve completion rates in Utah. Adelman (1999, 2006) and Swanson (2008) similarly found that dual enrollment courses in high school predicted greater college completion rates.

The regression and the descriptive analysis suggest that another variable that may play a role in early graduation for females was their tendency to only attend one college. Female students tended to stay at the same institution where they enrolled after completing their AA degree in high school and were usually full time students. It would make sense that if female students were enrolled continuously at the same institution, and

attending full time that their college graduation would be expedited. This, along with the differences in major may help to explain the .5 earlier completion rate females have over males.

AA credits and graduation timing of NCS recipients. Not surprisingly, males and females benefit from having their AA courses accepted by the college or colleges they attend. AA course acceptance was significant in all three regression calculations. There was an assumption by individuals in higher education that the AA work completed was not being applied to bachelor degrees. This assumption does not seem to be warranted. According to the respondents “all” or “almost all” (for a total of 89.9%) of the AA course work was accepted by the various institutions of higher education. Notably this included private institutions and institutions that do not offer AA degrees themselves. This jumpstart on a college education was noted by Adelman (1999, 2006) and Swanson (2008) in assisting students toward completion.

AA match with bachelor’s institution. As mentioned previously, the largest percentage of NCS students enrolled at BYU or the U of U, both universities do not recognize the AA degree or offer an AA degree. Between the two campuses 53.36% of recipients in this study attended one of these two institutions while working on their bachelor’s degree. An assumption regarding the NCS was that most recipients would continue on with the institution where they received their AA degree. This was not the case. In all, 68.8% of the NCS recipients did not work on their bachelor’s degree at the same institution of higher education where they earned their associates. That said, institutions, even those not granting AA degrees themselves, seem to honor the college

coursework taken in for the NCS.

Was the Quality of Advisement Related to College Graduation Timing of NCS Recipients?

Over two thirds of the NCS recipients report in Question 14 of the survey that the counseling they received in high school was “helpful” or “extremely helpful.” But in Question 15, the most frequent response in terms of what would improve the program was “better high school counseling,” (62% checked this option). In terms of ways to improve the program, “better high school counseling” was followed by “better informed college advisors” (37%), and “better articulation between concurrent enrollment and institutions of higher education” (36%). Students’ comments on Questions 14 and 15 verify that high school counseling was more problematic than college advisement. Many students mentioned the counseling they received from higher education about the NCS was better from college faculty than high school counselors. Interestingly, 11 students responded that the best counsel they received came from their mother or another family member or friend.

Given that high school advisement was the most frequently recommended improvement and that it was frequently addressed in the open-ended comment section, one would think that it would relate to students success in completing their bachelor’s degrees in a timely fashion. However, despite some concerns in this study about high school advisement, it did not influence time to graduation. Advisement will be discussed further in the program improvement section of this chapter.

**Was GPA Related to College Graduation
Timing of NCS Recipients?**

Many NCS students in this survey self-reported they had a high GPA. However, GPA was not found to be significant in this study. That said, there was not much variation in GPA among NCS recipients since district GPA entry requirements for participation in concurrent enrollment programs are often in place.

**Was Gender Related to College Graduation
Timing of NCS Recipients?**

There were significant gender differences throughout the study. Gender differences in time to college graduation were significant. When religious service was accounted for, females still finish one half year earlier than males. As discussed earlier, females could be graduating earlier than male peers because they are more likely to be full time students and to attend only one institution of higher education. For men, the only important variable in the regression model looking at what variables expedited graduation was AA course acceptance. This variable was significant for women as well.

When looking at the descriptive data, males were more likely than females to check that religious service, major required additional course work, chose additional course work and work as reasons for delay. Males were also more likely to select majors such as business and STEM which took more time to complete on average at 3.8 years to bachelor degree completion. The rigors or organization of these majors may require more time and courses necessary to complete graduation requirements than majors such as arts, education, and social science which were more likely to be chosen by female recipients.

These gender differences are of interest for several reasons. While females

completing college early is a positive thing it is disappointing that more women were not represented in the STEM professions. The recruitment of women into STEM related professions needs continued work and study. For males, it is important that they receive more advisement about the advantages of not changing colleges, as in this study that tended to extend bachelor degree completion.

Was Ethnicity Related to College Graduation Timing of NCS Recipients?

The ethnic diversity population in this study was too small to allow for the intended analysis. The demographics of this sample, however, were representative of the past 12 years of data collected on the NCS recipients according to USHE (2012b). However, the fact that this sample is representative of NCS recipients generally suggests that diverse populations (populations that were more likely to be first in family to attend and more likely to be in need of financial support) were not being served by the NCS.

What Variables Most Influenced College Graduation Timing?

The regression was useful in that it helped us understand which variables contribute the most to expedited graduation. The single most important variable in timing to college completion for this study was gender. It surfaced throughout this study and was significant ($t = -3.228, p = .001$), in the regression that addressed the entire population. College major when paired with gender in contingency tables was also significant. Attending only one college was significant in the regression for females ($t = 2.592, p = .011$). Attending full time was significant for total population and females. AA course

acceptance appeared in the regression model for total population, male and females.

Calculation for total population was significant at $t = 3.994$, $p = .000$, males $t = 3.472$, $p = .001$, and females at $t = 2.682$, $p = .008$. The more courses accepted from the AA degree program the greater the influence on graduation timing.

In summary, this study informs us that females tend on average to graduate early by half a year. Since one cannot change one's gender this was interesting but not helpful in application of a treatment to assist males with the same graduation timing. More helpful was the finding that NCS recipients should enroll in a single institution and continue their education full time. It is also helpful to recognize just how important the number of AA courses that are accepted by the bachelor's degree granting institutions can be. In addition, students need to clearly recognize that some majors and some colleges will require more time for completion than others. These factors should be taken into consideration as they plan for their college years.

NCS Program Improvements

The second section of this chapter discusses both good aspects of the NCS as well as areas for improvement. This section will discuss elements of the NCS that are working particularly well and discuss areas where the program could be improved. A review of positive findings will be reviewed first followed by areas for improvement.

Areas of Commendation

Graduation rates. Learning that the college graduation rate of this 3-year cohort groups of NCS recipients was 83.2% was encouraging information. The NCS graduation

rate is 3-4 times higher than other Utah higher education institution cohort groups. At a time when bachelor degree rates are stagnant or declining, this is a program with a high graduation rate. It is even higher than many high school graduation cohort groups. It is currently higher than Utah's high school graduation rate of 79%. Obviously, something is working with this program.

Finances/tuition. When NCS recipients were asked about life circumstances that prolonged degree completion only 20 (7.4%) checked that it was due to financial issues. These students did qualify for the scholarship, which at that time paid 75% of the remaining 2 years of tuition. This is significant savings on college education for these students. Embedded in the final survey comment question many students mentioned the financial implications of the NCS. There were numerous comments about the hard work it took to obtain the NCS, but that it was worth the benefits in tuition. Students shared they would do it again. Many commented they could not have gone to college if not for the NCS while others commented that because of the NCS they had no student debt.

Many of the students did mention receiving additional financial aid. The NCS scholarship coupled with grants, loans and other scholarships allowed over 90% of the NCS recipients in this study to go to college without the worry of financial issues.

College selection. The choice of college to attend in Utah may accelerate bachelor degree completion by as much as 1.5 years. This is definitely something to consider when registering for college. With the exception of Dixie College (for which only five students reported attending) and UVU where NCS recipients took the traditional 4 years, all other 4-year institutions of higher education had accelerated graduation rates

for NCS recipients. What a bargain, back in 2004-06, those attending Westminster with a much higher tuition rate still had 75% of that tuition paid by the scholarship. Utah has a reputation for having an economical and competitive rate of tuition. On average, the years to completion were 3.57 in this study with an 83% graduation rate. There were some very good outcomes for those participating in the program.

STEM majors. Seldom does STEM selection lead the list of major selection. One in three students in this study graduated in a STEM related field. Most of these students were males. This is an important finding of the study. The current demand for STEM graduates in Utah is over 2000+ job openings. Employers in our state are recruiting STEM graduates out of state, out of the nation or outsourcing to fill the openings. The current USHE (2010b) graduation rates in STEM related fields are 7%. It was suggested earlier, that the large number of STEM majors in this study may be due to the ECHS that focus on STEM. Upon further investigation it was found that of the $N = 268$ only 6% of those students attended an ECHS. Thus, while the ECHS recipients of the NCS had some impact they made up less than a tenth of those listing this major ($N = 81$). It is unknown what accounts for the high number of STEM majors among the NCS recipients. This would be an interesting area for further research.

Full-time students. Attending full time was significant for male and female students in terms of expediting graduation. In the descriptive statistics 85.1% of the students in this NCS survey attended college full time. Given this expedites college completion this is a good thing. The scholarship allows or motivates students to go full time by lessening the need to work long hours in order to pay for tuition. As planned,

there is also a built-in incentive with the scholarship to complete one's degree quickly. The scholarship expires after 5 years, regardless of college completion. Students can apply for an extension for religious service, but few other appeals are granted. Students rightly feel some pressure to get their degree as quickly as possible, which means making plans to go full time. Having to take on less work obligation to pay tuition and knowing the NCS tuition benefit is a time-sensitive resource seems to increase the odds that students will go full time.

AA course acceptance. As was mentioned earlier, most AA courses were accepted by the colleges students selected to attend after completing high school. This was a significant variable for total population, male students, and female students. The AA degree jumpstart along with the scholarship may have been the tipping point for NCS recipients in obtaining their bachelor's degree (Adelman, 2006; Swanson, 2008).

Areas of Improvement

Counseling and advisement. High school counseling and advisement was a very strong theme throughout the study. While overall most students felt they received good advisement, there was a vocal minority who commented that they succeeded in spite of the advisement (or lack of advisement) they received. High school advisement was also the most frequently marked area where the program could improve followed by better informed college advisors.

Another area for improvement which is related to counseling is career selection with their AA course of work. Although most NCS recipients on survey Question 17 said they were satisfied with their career, many comments told about a missing story. The

comments made by students were about not knowing they had a choice of selection of AA degree. A number of NCS recipients commented on the survey that they thought their only option was a prescribed order of general education classes. There was also mention of just taking the classes that were offered and some complained they could not get the classes they needed.

Lack of diversity. Unfortunately, the ethnicity populations in this study were too small to analyze. Utah does have an increasingly diverse population. Many of the inner city schools in Salt Lake City area are minority majority. Latino students, especially, are underrepresented among NCS recipients. Efforts need to be made to advise more minorities about the opportunities available in programs such as the NCS. This responsibility needs to be met at the high school level by well trained and culturally responsive advisors.

The NCS recipients in this study seemed to have succeeded in spite of sometimes having less than stellar advisement. Better advisement is an area of needed improvement. With improvement in that area new ways to inform, recruit, and advise students who are minorities, low SES, and potentially first in family to attend colleges should be explored.

Implications for Future Research

Future studies are needed to better understand the effectiveness of the NCS program. This section of Chapter V delineates potential research directions that would be helpful.

Return on Investment

The NCS program was designed to expedite bachelor degree completion. This study has confirmed that the NCS program does expedite bachelor degree completion. But is the program worth the return on investment to Utah taxpayers? Legislators, the governor, and policy makers want to know this answer.

A future study should include an analysis of the cost to the state of funding the students graduating with the NCS compared to the cost to the state associated with typical completion of a bachelor's degree. How long does it take for the NCS recipient to pay back to the state in the form of taxes (especially income taxes dedicated to education funding the NCS) a return on the investment made on NCS recipients? How can this be compared to students not graduating with the NCS and their investment in taxes? Is the cost of the program worth the investment?

Over the course of the past 2 years changes have been made to the NCS program as mentioned earlier. These changes occurred to bring the NCS program in line with another scholarship program sponsored by USHE, called the Regents Scholarship. It will take time with these changes to understand the ramifications. What would be interesting would be to take another 3-year cohort group after the changes have had time to be implemented and students have had sufficient time to complete their bachelor degree programs and compare and contrast the differences with the old policy against the new policy.

Process of Recruitment into the NCS Program

The lack of ethnic diversity and financial need of students in this study was worth noting. Obviously, the vast majority of students in this study were Caucasian and financial challenges were reported as minimal by these NCS recipients. It is unknown if the students most in need of this kind of financial assistance are being encouraged early in their high school careers to seek out the NCS. How can we encourage highly motivated low SES students and ethnic minority students into this program or programs like it? This scholarship could make a college education possible for students who typically wouldn't go to college. Exploring the issue of diversity as it related to the NCS program would provide additional important information.

First in Family to Earn a Bachelor's Degree

This topic for future research is similar to the question mentioned above. How do we get more students who are first in family to get a bachelor's degree participating in the NCS program? This scholarship has the potential to break the chain of poverty and transform student's lives with a scholarship to assist them through their bachelor's degree. Students' number one reason for dropping out of college is not due to academic success, but financial problems. The NCS could help many low SES and ethnic minority students become first in family to get a bachelor's degree.

Why Did 17% of the Students in the 3-Year Cohort Group not Finish or Drop Out?

Receiving a scholarship that pays 75% of the remaining 2 years of tuition over the

next 5 years is a wonderful opportunity. But why did 17% of these recipients never complete or at least not complete by June 2012? What were the barriers that prevented these NCS recipients from completing? We know from the survey responses that they matriculated to higher education, but the reasons for not completing are unknown.

Policy Implications and the Future of the NCS

The NCS program had been in existence in Utah for nearly 20 years. In that time there has never been any outcome information gathered about the program to share with policy makers about what is working or what parts of the program could be improved. Legislators do not know what changes should be made in code to improve the program for students, their families, or the state's economy. Very little information on the outcomes of programs is shared with legislature with the exception of the number of students qualifying and the cost to the state.

Informing Legislators About the NCS

Policy makers need to understand the benefits of the NCS program and that certain variables such as institution attended and college major enhance the outcomes for students in terms of expedited graduation. Policy makers write the laws, but seldom do they ever know the outcomes of their legislation. For example, students in this study were more likely to have expedited graduation when they attended one of Utah's universities versus one of Utah's colleges.

A concern facing our nation and the state is the need for more STEM graduates. Utah is currently recruiting out of state and out of country to fill STEM jobs. There is

currently a STEM initiative underway at USHE to improve graduation rates in STEM. Almost one in three NCS recipients in the study were STEM majors. Investing more in the NCS program, or making improvements to the scholarship could be an investment in more STEM graduates in Utah. If our legislators, business leaders, local chambers, and employers want more STEM graduates they need to know that the NCS program has a proven track record of success in producing more STEM graduates and in less time than other STEM graduates.

Better Counseling

This is not a policy recommendation for the legislature, but for our state board of education and counseling and leadership associations. There were many things that could be improved with this program that require no legislation. What was important was if students have good information it not only benefits them, it benefits Utah and our future economy.

An area for improvement was counseling and advisement. This is the strongest lesson learned from the data in this study. Utah needs to do a better job of informing high school students about the NCS program, the benefits, challenges and what the scholarship means to their future success. The Utah School Counseling Association needs to implement a better state-wide program to inform students about the NCS program. Not all Utah students will be interested or sufficiently skilled or motivated to complete an AA degree while in high school. That said, all students need to be told about the program and provided with accurate information so that they can make good decisions about their future. Special efforts should be made to assure that traditionally underrepresented

populations in college are aware of the NCS opportunities.

Related to counseling, there are a number of AA degrees NCS students may earn depending on the track they have chosen for their bachelors, but students are not always aware of these. This problem will also be solved if advisors and students have better information and communication.

Technology expansions are offering more and more courses online. Utah colleges and universities have complete AA and BS degrees that can be earned online. With high quality advisement the NCS program will allow for access to these classes and an increasing diversity of AA degrees.

Addressing these counseling challenges could be as simple as informing the statewide director over counselors about the information contained in this study. Similarly, school administrators should be informed so that they can also assist in assuring that their counselors are well informed about the program. Information is a powerful tool. Fixing these program problems is not difficult. It is just sharing the data of this study with the right people and letting them know to get information to students, support them, and allow them to make decisions with their parents based on what they believe to be in the best interest of their student.

These recommendations could improve access to the program, expand enrollment and equip future NCS recipients with information beneficial to participating. Utah is embarking on a significant education goal of having 66% of all adults in Utah, ages 20-64 with a post-secondary certificate or degree. The focus of educators and legislators in the state needs to be centered on policy that moves the needle closer to accomplishing this

goal. The NCS scholarship program has merit in assisting policy makers toward reaching the 66% goal.

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APPENDICES

Appendix A
Variables in the Study

Variables in the Study

The dependent variable in the study is:

- Years from high school graduation to college completion. This will be calculated by the difference in Questions 5 and 23. Also, in addition to years to college completion, semesters to graduate with a bachelor's degree—this is referenced in survey Question 10. Students responses begins with less than two year, 2 years, 2½ years, 3 years, 3½ years, 4 years, 4½ years, 5 years, 5½, 6 years, 6½ years, 7 years or more, or still working toward bachelor degree. Complete College America (2009) national average for years to college completion is 4.7, CCA average Utah at 6.7 years to completion. This question is extremely important as it gets to the core of this dissertation, the NCS recipients and timing to college completion.

Independent Variables in the study are:

- GPA-This question is asked in the survey in Question 24. Answers are numerical and are a 0.3 point interval as follows: 4.0-3.8, 3.7-3.5, 3.4-3.2, 3.1-2.9, 2.8-2.6, 2.5-2.3, and below 2.3. Many of the students in the pilot were in the top two categories. Student GPA is important as mentioned in the research indicating high GPA and dual enrollment participation have a high correlation. It was also mentioned in the research that many of the students participating in concurrent enrollment self-select. Student success in concurrent enrollment may be due to adequate college and career preparation from participation in accelerated learning programs.
- Quality of advisement in high school-this independent is answered in Question 14 in the survey. NCS respondents may answer that the advisement they received in high school was extremely helpful, helpful, not very helpful or not helpful.
- Life circumstances-this independent variable is very important to this study as life circumstances extend time to college completion. This independent variable will be measured with the following responses: service, financial, family or health.
- Gender-this is a dichotomous question as gender is important to timing to college completion. This is a nominal question with male or female as answers.
- Ethnicity-this is a categorical question to identify ethnicity of NCS recipients. Choices for ethnicity are coded by African American, American Indian/Native Alaskan, Asian, Caucasian, Hispanic/Latino, and Pacific Islander.
- Major-this is addressed in Question 7. This question is coded with agriculture, arts, business, career technical education, engineering, family life humanities, natural resources, prelaw and premed.

- College attended-This is a categorical question and Question 2 in the survey. It is coded with the following responses: Brigham Young University, Dixie State College, Snow College, Southern Utah University, University of Utah, Utah State University, Utah State University College of Eastern Utah, Utah Valley University, Weber State University and Westminster. Utah Code specifies institutions in 53B-8-105-6 the scholarship may be used at private, nonprofit college or universities in the state, as well as USHE baccalaureate institutions.

Appendix B

NCS Survey

NCS Survey

1. Have you attended college since receiving your associate's degree in high school?

- Yes
- No-go to question #14

Comment (please specify)

2. After receiving your associate's degree, where did you attend college? Check all that apply

- Brigham Young University
- Dixie State College
- Snow College
- Southern Utah University
- University of Utah
- Utah State University
- Utah State University College of Eastern Utah
- Utah Valley University
- Weber State University
- Westminster

Other (please specify)

3. Did you work on your bachelor's degree at the same institution of higher education where you earned your associate's degree? Check one

- Yes
- No

If no please comment why

4. What is the highest degree you have completed? Check one

- Bachelor
- Masters
- Doctorate
- Still working on completion a bachelor degree
- Do not plan to complete my degree

Comment (please specify)

5. What year did you graduate with your bachelor's degree?
- 2006
 - 2007
 - 2008
 - 2009
 - 2010
 - 2011
 - 2012
 - Still working towards bachelor's degree
- Comment (please specify)
6. Are you the first person in your family to obtain a four year college degree?
- Yes
 - No
 - Still working towards bachelor degree
- Other (please specify)
7. I plan to complete or have completed my bachelor degree in:
- Agriculture
 - Arts
 - Business
 - Career Technical Education
 - Education
 - Engineering
 - Family Life Humanities
 - Health Care
 - Information Technology
 - Natural Resources
 - Nursing
 - Pre Law
 - Pre Med
- Other (please specify)
8. While working toward your bachelor's degree were you a full-time or part-time student?
- Full time student
 - Both full-time and part-time student (it varied by semester)
 - Part-time student
- Other (please specify)

9. While working toward your bachelor's degree how often did you take courses during summer semester?
- Never
 - One Summer
 - Two Summers
 - More than two summers

Comment (please specify)

10. After graduating with your associate's degree how many years passed before you completed your bachelor degree? Check the one that is closest- rounding up if needed
- Less than two years
 - Two years
 - Two and a half years
 - Three years
 - Three and a half years
 - Four years
 - Four and a half years
 - Five years
 - Five and a half years
 - Six years
 - Six and a half years
 - Seven years
 - Still working toward bachelor degree

Other (please specify)

11. If more than two years passed between your associate's degree and your plans to complete your bachelor's degree please indicate which of the reasons below are relevant to your experience. Check all that apply
- Degree in my major required additional coursework beyond two years
 - Chose to take additional coursework
 - Changed course of study or major
 - Took time off for travel
 - Took time off for work
 - Military service
 - Humanitarian service (for example Peace Corps)
 - Religious service
 - Health problems
 - Family responsibilities

- Financial issues
- Not applicable

Other (please specify)

12. Did the institution of higher education where you completed or plan to complete your bachelor's degree accept the college courses you had already completed for your associate's degree? Check one

- All courses were applied to my bachelor's degree program
- Almost all courses were applied to my bachelor's degree program
- More than half of the courses were applied to my bachelor's degree program
- Half of the courses were applied to my bachelor's degree program
- Less than half of courses were applied to my bachelor's degree program
- Very few or none of the courses were applied to my bachelor's degree program

Other (please specify)

13. Did you receive additional financial aid (scholarship, grants or student loans) beyond the New Century Scholarship?

- Yes
- No

Other (please specify)

14. In hindsight, was the counseling you received in high school helpful in assisting you to earn the NCS? Check one

- Extremely helpful
- Helpful
- Not very helpful
- Extremely poor

Other (please specify)

15. From the list below how could the New Century Program be improved? Check all that apply

- Better counseling and advisement about the NCS Program in high school
- Improved communication with parents of students who are in the NCS Program
- Better informed college advisers regarding the NCS Program
- More rigorous instruction in the concurrent enrollment courses taken for the

- associate's degree
- Better articulation between concurrent enrollment programs and institution of higher education

Other (please specify)

16. Would you recommend the NCS program to high school students?

- Yes, absolutely
- Yes, but with some reservations
- Probably not
- Definitely not

Comments

17. Are you satisfied with your AA or college major?

- Very satisfied
- Somewhat satisfied
- Satisfied
- Unsatisfied

Comments

18. Are you currently employed?

- Yes
- No, currently seeking employment
- No, not seeking employment at this time

Other (please specify)

19. Are you satisfied with your career selection?

- Yes, definitely satisfied
- Yes, generally satisfied
- Somewhat dissatisfied
- Not satisfied

Comments

20. Are you employed in the career area in which you completed your most recent degree?

- Yes
- No
- Not Applicable

Other (please specify)

21. Demographic information – Gender

- Male
- Female

22. Demographic information – Ethnicity

- African American
- American Indian/Native Alaskan
- Asian
- Caucasian
- Hispanic/Latino
- Pacific Islander

Other (please specify)

23. I graduated from high school in

- 2004
- 2005
- 2006

Other (please specify)

24. My high school GPA was between:

- 4.0-3.8
- 3.7-3.5
- 3.4-3.2
- 3.1-2.9
- 2.8-2.6
- 2.5-2.3
- Below 2.3

Other (please specify)

25. Please type in the name of the high school from which you graduated.

26. Did you take and complete Advanced Placement courses in high school?

- Yes
- No

Other (please specify)

27. Did you take and complete international baccalaureate courses in high school?

- Yes
- No

Other (please specify)

28. Is there other information about the NCS program that you would like to share? If yes please comment below

- Yes
- No

Other (please specify)

Appendix C
NCS Pilot Survey Results

Results for survey: New Century Scholarship Survey

Survey Invitations

Invitations Sent:	0
Invitations Accepted:	0
Untracked Responses:	32
Total Completed Surveys Received:	32
Total Incomplete Surveys Received:	0
Total Responses Received:	32

Options

- Display completed surveys only ?
- Show all questions as raw values ?
- Show all responses
- Show Marked responses
- Hide Marked responses

[Update results](#)

Results filtering

[Add Filter](#)

[View invitations & send reminders](#)

Page: 1/1

Question 1

Have you attended college since receiving your associate's degree in high school?

Yes	32	100.00%
No - No go to question #11	0	0.00%

[Pop-up](#)

Question 2

After receiving your associate's degree, where did you attend college? Check all that apply

Brigham Young University	17	43.59%
Dixie State College	1	2.56%
Snow College	0	0.00%
Southern Utah University	2	5.13%
University of Phoenix	0	0.00%
University of Utah	5	12.82%
Utah State University	7	17.99%
Utah State University College of Eastern Utah	0	0.00%
Utah Valley University	6	15.38%
Weber State University	1	2.56%
Westminster	0	0.00%

ID	View	Survey	Other
3966596	View	College of Eastern Utah on a separate scholarship	
4647810	View		SLCC

[Pop-up](#)

Question 3

Did you work on your bachelor's degree at the same institution of higher education where you earned your associate's degree? Check one

Yes	18	46.25%
No	14	33.75%

ID	View Survey Comments
3933580	View Yes, but it was only one semester before I transferred.
4064502	View Currently working on bachelor's at UVU.

[Pop-up](#)

Question 4

What is the highest degree you have completed? Check one

Bachelor	15	53.33%
Master's	2	6.67%
Doctorate	0	0.00%
Did not complete a degree beyond my associate's degree - skip to item #11	12	40.00%

ID	View Survey Comments
3874105	View BA as of April 2011
3875361	View I am currently working towards my bachelors degree
3877365	View I'm graduating with my bachelor's in April
3966596	View I am in my last semester of Bachelor's
4064490	View In process of completing Bachelors
4064502	View Still completing
4065120	View will graduate in one year
4066293	View I'm still working towards higher degrees.

[Pop-up](#)

Question 5

I completed by bachelor degree in:

This question has no answers

Question 6

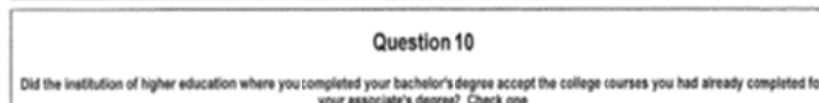
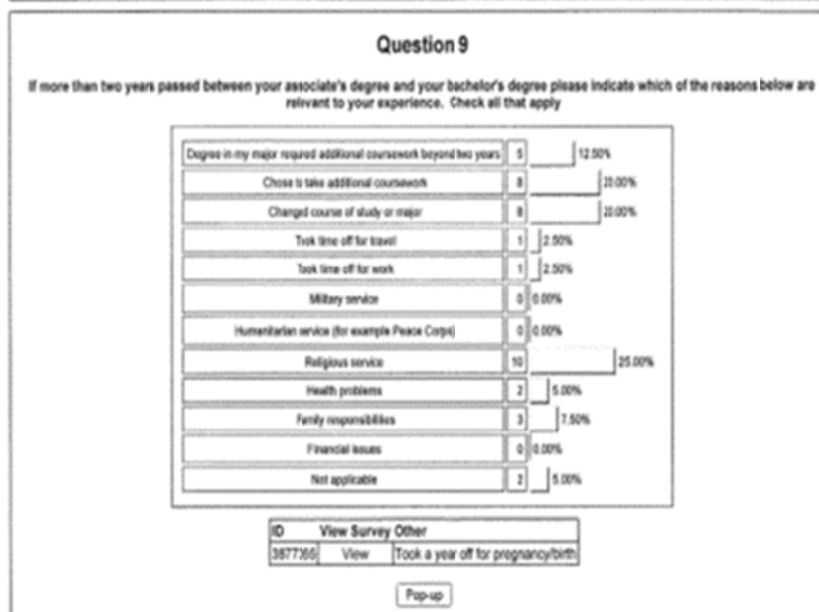
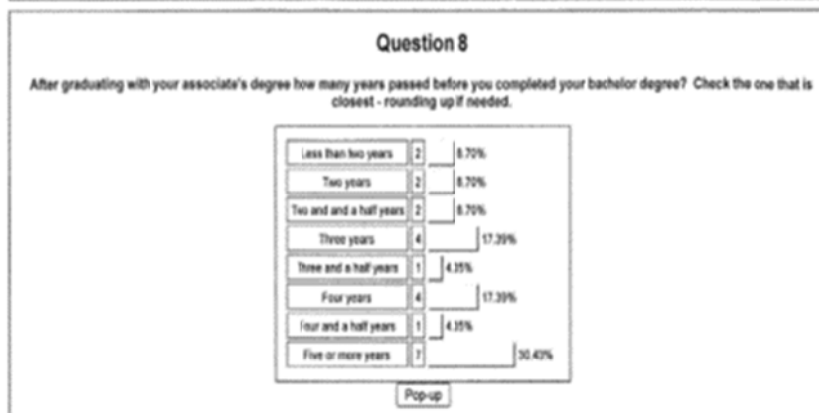
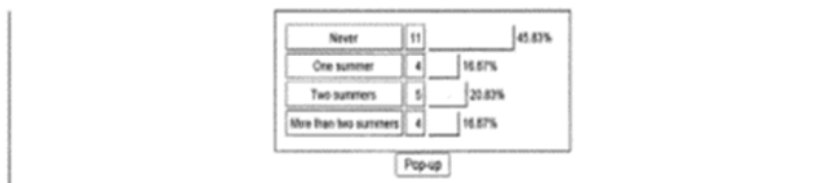
While completing your bachelor's degree, were you a full-time or part-time student?

Full time student	17	70.83%
Both full time and part-time student (it varied by semester)	7	29.17%
Part time student	0	0.00%

[Pop-up](#)

Question 7

While completing your bachelor's degree how often did you take courses during summer term?



All courses were applied to my bachelor's degree program	12	50.00%
Almost all courses were applied to my bachelor's degree program	12	50.00%
More than half of the courses were applied to my bachelor's degree program	0	0.00%
Half of the courses were applied to my bachelor's degree program	0	0.00%
Less than half of the courses were applied to my bachelor's degree program	0	0.00%
Very few or none of the courses were applied to my bachelor's degree program	0	0.00%

ID	View	Survey	Comments
3874105	View		All GE courses!!! None of the others were anything besides dead weight
3966596	View		Well all the generals were covered
4065120	View		They only covered generals, but all were applied

Pop-up

Question 11

In hindsight, was the counseling you received in high school helpful in assisting you to earn the New Century Scholarship? Check one

Extremely helpful	9	26.13%
Helpful	14	41.75%
Not very helpful	7	21.88%
Not helpful	2	6.25%

ID	View	Survey	Comments
3874105	View		Counseling... meaning high school counselor? Helpful is a stretch... my answer really lies more in the somewhat helpful range that isn't an option.
3933586	View		I received very little, it was my Mom that found out about it. At the same time I didn't really seek counseling from my high school.
4065120	View		I never heard anything

Pop-up

Question 12

From the list below how could the New Century Program be improved? Check all that apply

Better counseling and advisement about the New Century Program in high school	22	37.50%
Improved communication with parents of students who are in the New Century Program	5	8.52%
Better informed college advisors regarding the New Century Program	13	22.41%
More rigorous instruction in the concurrent enrollment courses taken for the associate's degree	7	12.07%
Better articulation between concurrent enrollment programs and institutions of higher education	11	18.97%

ID	View	Survey	Other
3875361	View		Instead of lowering the amount of money promised to those who had already obtained the 75% tuition, they should have had the 75% scholarship remain in effect for those who were awarded the scholarship expecting the 75% tuition and lowered the scholarship for those beginning to work towards the new century scholarship who hadn't been awarded a scholarship of 75% tuition.
3875777	View		better counseling on how to choose a major
3877365	View		I happened to hear about the program. I think it should be advertised more.
4064300	View		Also tuition is due on the last day of class in the fall semester, grades are not posted for another week, then it takes a couple of weeks to get the scholarship money. It would be nice if there was a way around this problem.
4064490	View		Completing my Associates degree initially has made my schedule a bit more difficult later on since they are all upper division courses in my major. I would perhaps have required 2 years college completion as opposed to completion of an Associate's degree.

Pop-up

Question 13

Would you recommend the New Century Scholarship program to high school students?

Yes absolutely	23	74.19%
Yes but with some reservations	8	25.81%
Probably not	0	0.00%
Definitely not	0	0.00%

ID	View Survey Comments:
4064490	View For those wanting to attend a high ranked institution, especially one outside of Utah, it is probably not worthwhile

[Pop-up](#)

Question 14

Are you satisfied with your AA or college major?

This question has no answers

Question 15

Are you currently employed?

Yes	22	76.67%
No currently seeking employment	6	21.43%
No not seeking employment at this time	0	0.00%

ID	View Survey Comments
3966596	View paid internship but temporary (grant work)
4065120	View will be

[Pop-up](#)

Question 16

Are you satisfied with your career selection?

Yes/definitely satisfied	17	56.67%
Yes/generally satisfied	13	43.33%
Somewhat dissatisfied	0	0.00%
Not satisfied	0	0.00%

ID	View Survey Comments
3875361	View working while still going to school

[Pop-up](#)

Question 17

Are you employed in the career area in which you completed your most recent degree?

Yes	10	33.33%
No	5	16.67%
Not applicable	15	50.00%

ID	View Survey Comments
3877365	View I chose Behavioral Science after I got pregnant. My career choice is to be a stay at home mother
3933586	View Haven't completed yet, but it is in the same field.
3966596	View internship is in the field

Pop-up

Question 18

Demographic information
Gender

Male	19	61.29%
Female	12	38.71%

Pop-up

Question 19

Demographic information
Ethnicity

African American	0	0.00%
American Indian/Alaskan	0	0.00%
Asian	0	0.00%
Caucasian	30	96.77%
Hispanic/Latino	1	3.23%
Pacific Islander	0	0.00%

Pop-up

Question 20

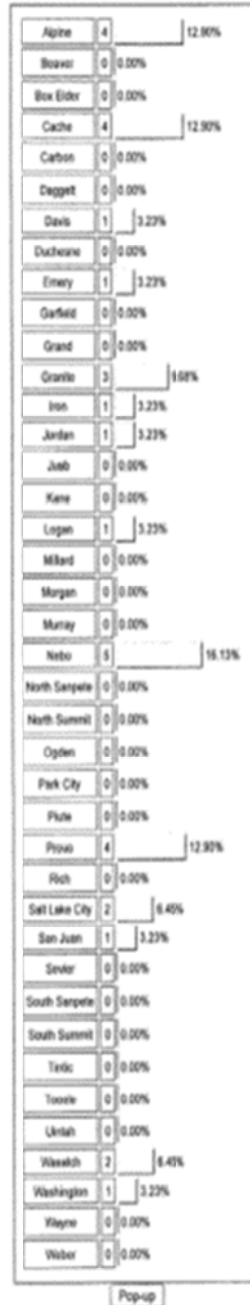
I graduated from high school in:

2000	0	0.00%
2001	0	0.00%
2002	0	0.00%
2003	0	0.00%
2004	0	0.00%
2005	0	0.00%
2006	31	100.00%

Pop-up

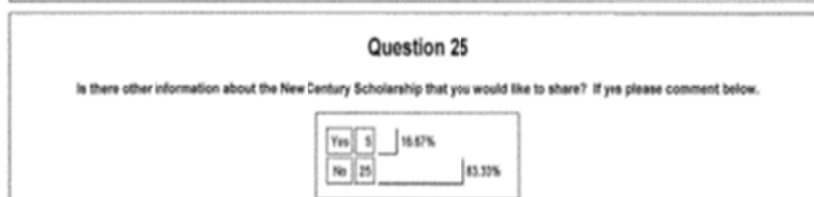
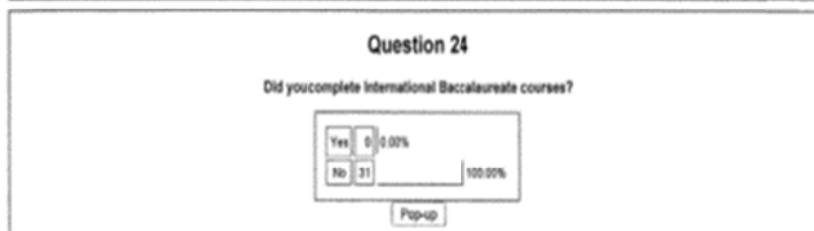
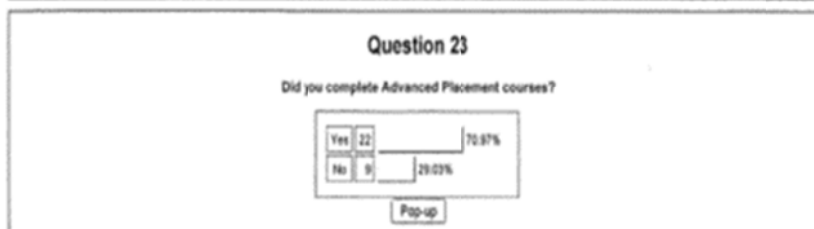
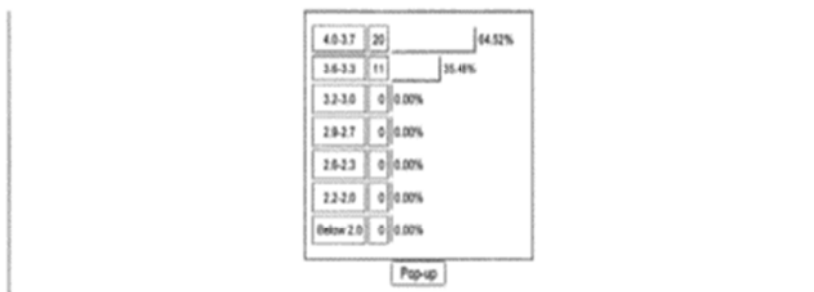
Question 21

I attended high school in the following district(s):



Question 22

My high school GPA was between:



ID	View Survey	Comments
3880474	View	AP courses really held no relevancy or college credit. Most of my AP credits simply went to general credit even though I scored high on my tests. Concurrent Enrollment offered transferred much smoother. Also I had a problem first registering when I first went to college because I had a hold for having over 60 credits and not having a major declared. This cost me a couple of classes my first semester, because they did not get the hold removed from my transcript in time for the general class registration. Make sure students know that they need to declare a major immediately.
3905090	View	Loved it
4055120	View	I provided the foundation required to complete a double major
4055254	View	It's great
4055734	View	I would suggest that students receive more career counseling rather than school counseling so that when they arrive at college with an Associate's degree, they have a firm idea of what they want to do. It will increase the likelihood of their graduating in a shorter period of time.

Pop-up

Appendix D
NCS Codebook

Coding of the NCS Survey

1. Have you attended college since receiving your associate's degree in high school?
(nominal question)

- Yes-1
- No-2 (go to question #14)

Comment (please specify)-separate variable

2. After receiving your associate's degree, where did you attend college? Check all that apply (nominal question)

- Brigham Young University-1
- Dixie State College-2
- Snow College-3
- Southern Utah University-4
- University of Utah-5
- Utah State University-6
- Utah State University College of Eastern Utah-7
- Utah Valley University-8
- Weber State University-9
- Westminster-10

Other (please specify)-separate variable

3. Did you work on your bachelor's degree at the same institution of higher education where you earned your associate's degree? Check one (nominal question)

- Yes-1
- No-2

If no please comment why

4. What is the highest degree you have completed? Check one (nominal question)

- Bachelor-1
- Masters-2
- Doctorate-3
- Still working on completion a bachelor degree-4
- Do not plan to complete my degree-5

5. What year did you graduate with your bachelor's degree? (interval question)

- 2006-1
- 2007-2
- 2008-3
- 2009-4
- 2010-5
- 2011-6
- 2012-7
- Still working towards bachelor's degree-8

Comment (please specify)-separate variables

6. Are you the first person in your family to obtain a four year college degree? (nominal question)

- Yes-1
- No-2
- Still working towards bachelor degree-3

Other (please specify)

7. I plan to complete or have completed my bachelor degree in: (nominal question)

- Agriculture-1
- Arts-2
- Business-3
- Career Technical Education-4
- Education-5
- Engineering-6
- Family Life Humanities-7
- Health Care-8
- Information Technology-9
- Natural Resources-10
- Nursing-11
- Pre Law-12
- Pre Med-13

Other (please specify)-separate variables

8. While working toward your bachelor's degree were you a full-time or part-time student? (nominal question)

- Full time student-1
- Both full-time and part-time student (it varied by semester)-2
- Part-time student-3

Other (please specify)-separate variables

9. While working toward your bachelor's degree how often did you take courses during summer semester? (ordinal question)

- Never-1
- One Summer-2
- Two Summers-3
- More than two summers-4

Comment (please specify)-separate variables

10. After graduating with your associate's degree how many years passed before you completed your bachelor degree? Check the one that is closest- rounding up if needed (ordinal question)

- Less than two years-1
- Two years-2
- Two and a half years-3
- Three years-4
- Three and a half years-5
- Four years-6
- Four and a half years-7
- Five years-8
- Five and a half years-9
- Six years-10
- Six and a half years-11
- Seven years-12
- Still working toward bachelor degree-13

Other (please specify)-separate variable

11. If more than two years passed between your associate's degree and your plans to complete your bachelor's degree please indicate which of the reasons below are relevant to your experience. Check all that apply (nominal question)

- Degree in my major required additional coursework beyond 2 years-1
- Chose to take additional coursework-2

- Changed course of study or major-3
- Took time off for travel-4
- Took time off for work-5
- Military service-6
- Humanitarian service (for example Peace Corps)-7
- Religious service-8
- Health problems-9
- Family responsibilities-10
- Financial issues-11
- Not applicable-12

Other (please specify)-separate variables

12. Did the institution of higher education where you completed or plan to complete your bachelor's degree accept the college courses you had already completed for your associate's degree? Check one (ordinal question)

- All courses were applied to my bachelor's degree program-1
- Almost all courses were applied to my bachelor's degree program-2
- More than half of the courses were applied to my bachelor's degree program-3
- Half of the courses were applied to my bachelor's degree program-4
- Less than half of courses were applied to my bachelor's degree program-5
- Very few or none of the courses were applied to my bachelor's degree program-6

Other (please specify)-separate variables

13. Did you receive additional financial aid (scholarships, grants or student loans) beyond the New Century Scholarship? (nominal question)

- Yes-1
- No-2

Other (please specify)

14. In hindsight, was the counseling you received in high school helpful in assisting you to earn the NCS? Check one (ordinal question)

- Extremely helpful-1
- Helpful-2
- Not very helpful-3
- Extremely poor-4

Other (please specify)-separate variables

15. From the list below how could the New Century Program be improved? Check all that apply (nominal question)

- Better counseling and advisement about the NCS Program in high school-1
- Improved communication with parents of students who are in the NCS Program-2
- Better informed college advisers regarding the NCS Program-3
- More rigorous instruction in the concurrent enrollment courses taken for the associate's degree-4
- Better articulation between concurrent enrollment programs and institution of higher education-5

Other (please specify)-separate variables

16. Would you recommend the NCS program to high school students? (ordinal question)

- Yes, absolutely-1
- Yes, but with some reservations-2
- Probably not-3
- Definitely not-4

Comments-separate variables

17. Are you satisfied with your AA or college major? (ordinal question)

- Very satisfied-1
- Somewhat satisfied-2
- Satisfied-3
- Unsatisfied-4

Comments-separate variables

18. Are you currently employed? (nominal question)

- Yes-1
- No, currently seeking employment-2
- No, not seeking employment at this time-3

Other (please specify)-separate variables

19. Are you satisfied with your career selection? (ordinal question)

- Yes, definitely satisfied-1
- Yes, generally satisfied-2
- Somewhat dissatisfied-3
- Not satisfied-4

Comments-separate variables

20. Are you employed in the career area in which you completed your most recent degree? (nominal question)

- Yes-1
- No-2
- Not Applicable-3

Other (please specify)-separate variables

21. Demographic information – Gender (nominal question)

- Male-1
- Female-2

22. Demographic information – Ethnicity (nominal question)

- African American-1
- American Indian/Native Alaskan-2
- Asian-3
- Caucasian-4
- Hispanic/Latino-5
- Pacific Islander-6

Other (please specify)-separate variables

23. I graduated from high school in (ordinal question)

- 2004-1
- 2005-2
- 2006-3

Other (please specify)-separate variables

24. My high school GPA was between: (ordinal question)

- 4. 0-3. 8 -1
- 3. 7-3. 5 -2
- 3. 4-3. 2 -3
- 3. 1-2. 9 -4
- 2. 8-2. 6 -5
- 2. 5-2. 3 -6
- Below 2. 3 -7

Other (please specify)-separate variables

25. Please type in the name of the high school from which you graduated. (nominal question)

26. Did you take and complete Advanced Placement courses in high school? (nominal question)

- Yes-1
- No-2

Other (please specify)-separate variables

27. Did you take and complete international baccalaureate courses in high school? (nominal question)

- Yes-1
- No-2

Other (please specify)-separate variables

28. Is there other information about the NCS program that you would like to share? If yes please comment below (nominal question)

- Yes-1
- No-2

Other (please specify)-separate variables

CURRICULUM VITAE

CHRISTINE KEARL

Addresses

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Education

1980 Bachelor of Science, Utah State University, Secondary Education, Teacher Certification

1989 Masters of Science, Utah State University, Secondary Education

1990 Administrative Supervisory Endorsement K-12, Utah State University

2012 Ph. D Doctorate Degree, Utah State University, December 2012

Experience and Employment History

1979-80 Kahuku High School Student Teaching, Kahuku, Hawaii

1980-81 Uintah High School Teacher, Vernal, Utah

1981-85 North Rich High School Teacher, Laketown, Utah

1985-88 Rich High School Teacher, Randolph, Utah
 Assistant High School Principal

1988-1998 Principal Rich Junior High School, Laketown, Utah
 Principal North Rich Elementary

1998-2004 Rich County School District Superintendent, Randolph, Utah

1994-2004 Adjunct Mathematics Professor, Utah State University, Logan, Utah
 Teaching Math #1010, #1050 and #1060

2004-2005 Deputy State Superintendent for Utah Department of Education, SLC, UT
 Student Achievement and School Success Department overseeing:
 Curriculum and Instruction

Career Technical Education
 Special Education and Student Services
 Evaluation, Assessment and Accountability
 No Child Left Behind Student Programs

2005-2012 Governor's Education Deputy, Utah State Capitol, SLC, UT
 Governor Jon M. Huntsman, Jr. from 2005-2009
 Governor Gary R. Herbert from 2009-2012

Awards and Recognition

Teacher of the Year for Rich County Schools -1986
 State of Utah Middle Level Leadership Award- 1995
 District Excellence Award 23 Years of Service -2004
 Utah School Superintendent's Association Award -2009
 Honorary Doctorate Degree from College of Eastern Utah, Blanding Campus-2009

National Professional Membership and Appointments (2005-Present)

Education Commission of the States representing Utah and on the Board of Directors
 Governor's Educational Policy Advisors Association
 American Association of School Administrators
 National Network for Partnership Schools
 National Association for Administrative Supervision and Curriculum Development

State Professional Membership and Appointments (2005-Present)

Governor Herbert's Education Excellence Commission
 Co-chair with the Governor in developing annual policy and budget priorities for
 both public and higher education.
 Governor Huntsman's 21st Century Initiative
 Co- wrote and published the state plan for public and higher education and
 economic development.
 Governor's Women's College Task Force
 Governor's Math Advisory Board-Chair
 Governor's Literacy Council-Co Chair
 Governor's High School Commission
 Governor's Child and Family Cabinet Council
 USHE Complete College America-State Chair
 Utah Business, Education and School Trust (working with the SL Chamber and SLCC)
 Utah Association for Administrative Supervision and Curriculum Development
 Utah School Superintendent Association
 Utah's After School Network
 Utah State Library Board
 Utah Partnership for Education-Executive Director
 Utah Public Education Foundation-Executive Director

Utah Education Network Steering Committee
 Utah Family Partnership
 Utah's Kindergarten to Sixteen (K-16) Alliance
 Utah Reads Alliance
 Utah Literacy Council
 Bear Lake Regional Commission
 Odyssey Dance Theatre Board of Directors

National Presenter

ACT - Chicago 2006 – invited to present
 State Assessments Systems-Utah Performance Assessment System for Students-
 (UPASS)
 Jobs for the Future - Atlanta 2006 – invited to present
 Early College High Schools
 Wallace Foundation – 2007 – white paper submission selection for presentation
 Educational Leadership
 National Conference of State Legislators 2007-state competitive process for presentation
 Child and Family Cabinet Counsel
 National Governor's Association Conferences presentations from 2005-2012
 I attend and participate in about ten out of state conferences annually.

State Presenter and Keynote Speaker

Commencement Speaker for higher education and high schools 2005-2012
 State School Board Convention 2005 and 2006
 Utah Valley University Dual Enrollment Conference 2007
 Brigham Young University Star-talk Project 2009
 Asia Society-Global Education 2009
 World Language Acquisition Conference 2010
 Utah Women's Higher Education Network 2012
 State PTA Convention 2012
 State High Schools Counselors Conference 2012
 USU and the Workforce Conference 2012
 I have speaking engagements weekly at a public or higher education institutes,
 representing the Office of the Governor.

Guest Lecturer

LDS Business College-Administrative Leadership
 Governor's Education Symposium
 U of U Hinckley Institute of Politics
 I regularly meet with international groups traveling abroad studying state and national
 policies and organizational structure for public education and higher education.

Grant Writing Experience

State and Local Gear Up Grants-2005 (Co-writer)

This grant helps underserved students through high school and transition to college. Utah has both local and state Gear-Up Grants.

High School Reform Grant-2005 (My project)

This grant was issued to the State Office of Education to assist with “*Breaking Ranks*” implementation of high school reform agendas.

National Governor’s Association Early Childhood Grant-2006 (My project)

This grant was issued to the Office of the Governor to launch early childhood initiatives state-wide.

ASCD Grant for Governor’s Education Summit-2006 (Co-writer)

This grant was issued to the Office of the Governor to financial assist the Governor with his annual Education Summit on the “*Whole Child.*”

NSF Grant-Developing a K-16 Agenda for Science Education-2006 (Co-writer)

This grant was issued to the Utah State Office to Education to assist states in developing a K-16 science

Gates Foundation for Early College High Schools Renewal Grant-2007 (My project)

This grant was issued to the Utah Partnership to give to the Early College High Schools to build private/public partnerships for students transitioning to higher education.

State Head Start-Early Childhood Grant-2010 (My project)

This grant was issued to the Office of the Governor to develop a State Advisory Council for early childhood education and programs.

Governor’s Education Summits

I also plan and organize the annual Governor’s Education Summit for both public and higher education. Our target audience is legislators, campus presidents, district superintendents, board of trustees, board of regents, state school board, local school board, teachers and faculty. This year’s summit is October 15, 2012 at SLCC. Our theme will be 66% by 2020.

Additional Summits and number of summits held:

Early Childhood (3)

Education Summits (8)

World Language Summits (4)

Principals Summit (1)

Professional Licensure

Professional Educator License for the State of Utah

Administrative/Supervisory K-12

Secondary Education 6-12

Expiration 6/30/2015

Utah State University Adjunct Math Faculty

Hobbies and Interests

Own and operate a rescue animal shelter for abandon and/or lost animals

Life Long Learner

Opera, Music, Dance
Water and Snow Skiing
Doll Collecting

Contact:

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