THE INCARCERATED STUDENT IN ALABAMA:

AN EXPLORATORY STUDY OF STUDENT ENGAGEMENT

AT A TECHNICAL COLLEGE

by

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A DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of Doctor of Education in the Department of Educational Leadership, Policy, and Technology Studies in the Graduate School of The University of Alabama

TUSCALOOSA, ALABAMA

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ABSTRACT

The incarceration rate in the United States is slowly declining after decades of record growth. The result of this decline is a growing number of formerly incarcerated individuals reentering society. It is known that by participating in education while incarcerated, individuals are 28% less likely to recidivate following release (Bozick, Steele, Davis, & Turner, 2018). Alabama's recidivism rate in 2015 was 29.3%, with approximately 3,149 out of 10,715 released individuals returning to prison (Alabama Department of Corrections, 2018). Most often the measurement of successful educational programing is based on outcomes of recidivism rates and job placement without regard to the benefits of student engagement and the success that comes from the academic environment. While much is known about student engagement in community colleges and four-year institutions, little is known about the implications of engagement for incarcerated students in a technical college setting. This exploratory quantitative study sought to explore incarcerated student engagement in career and technical education (CTE) by utilizing a new survey instrument, the Incarcerated Student Engagement Questionnaire (ISEQ), to systematically collect data in the areas of program engagement, academic engagement, and student aspirations. The results indicated that students enrolled in CTE classes through the technical college exhibited high levels of engagement. Factors of engagement were predictive of overall student satisfaction. Additionally, engagement factors were predictive of students' perception of courses inspiring them to think in new ways.

DEDICATION

For my Dad. Thank you for always encouraging and supporting me to pursue higher education. To my husband, Shane. Through moves, job changes, and anything else life threw at us — thank you for taking this journey with me. I could not have done it without you. To the many other family members and friends who encouraged and supported throughout the years.

LIST OF ABBREVIATIONS AND SYMBOLS

- B Unstandardized coefficients betaCI Confidence intervaldf Degrees of freedom
- F F-value
- M Mean
- MS Mean square
- *n* Number of cases
- p Significance
- R^2 R square
- SD Standard deviation
- SEB Unstandardized coefficients standard error
- SS Sum of squares
- df Degrees of freedom
- β Standardized coefficients beta
- Δ Change
- η^2 Partial eta squared
- < Less than
- > Greater than

= Equal to

- α Cronbach alpha index of internal consistency
- + Plus or higher
- \leq Less than or equal to
- \geq Greater than or equal to
- % Percentage or percent
- / Divided by

ACKNOWLEDGMENTS

There are almost too many people to acknowledge and thank. This research is possible because of Dr. Frankie Santos Laanan, and I will forever be grateful to him for not only introducing me to this topic, but for investing in me. From brainstorming sessions, conference presentations, site visits, and data collection — Dr. Laanan was there every step of the way. Thank you for the countless hours you spent mentoring, teaching, advising, and supporting me.

Thank you to Dr. Mike Bohlig, Dr. Nathaniel Bray, Dr. Erin Castro, and Dr. Vivian Wright, who served on my dissertation committee. Individually and collectively, they challenged me to think more deeply and encouraged me throughout my months of research. Dr. Bohlig, thank you for the opportunity to work with you on designing the survey instrument and for helping me understand and interpret the statistical analysis.

The administrators at Ingram State Technical College were instrumental in making this research happen. Thank you, President Annette Funderburk and Dr. Julianna Probst. You each invested many hours and advocated for this project to occur. I also want to recognize and thank the students who participated in this research.

To my fellow scholars in Cohort 12 and faculty — thank you. I learned so much from each of you and value your friendship. A special thank you goes to my dissertation accountability partner, Brian Gorman. Not only did he collect data with me, but he helped me understand statistics, and was always willing to talk through the research. Thanks for pushing me to keep writing and persevere. Julie Glasco, our daily texts and conversations kept me sane throughout this process. Thank you for the pep talks! Janelle Briscoe, Stephen Hirst and Timothy Ullmann,

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thank you for the support and encouragement to keep going while also focusing on career growth, and for the many laughs along the way.

I also need to recognize and thank my former colleagues at the University of South Alabama. I was fortunate to begin this journey while working there and appreciate the support from so many. Thank you to my many friends in Mobile. Casey, thank you for being there for me over the years.

I must acknowledge my family. Thank you for your understanding and support over the years. I could not have done this without you. A special thank you goes to my Dad who always encouraged me to continue my educational journey. Lastly, I must acknowledge and thank my husband, Shane, for the years of encouragement, support, and patience as I spent countless hours studying and writing.

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CHAPTER I:

INTRODUCTION

Situated outside the state capital, the technical college offers educational opportunities in career and technical education, adult education, GED preparation, and non-credit technical training to adult students. Monday through Friday from 7:30 am until 2:30 pm, administrators and instructors pass through a guarded entrance where they are required to provide a correctional officer with photo identification and agree to a bag check. Inside the campus walls, the classrooms and offices are buzzing throughout the day. The students enrolled in classes are recognizable by their White uniforms identifying them as wards of the state's Department of Corrections. These incarcerated students pursuing career and technical education (CTE) move about campus with minimal supervision. Guards continually patrol the halls and grounds. The lunch bell rings at 10:30 am, when students must report to the guards for a headcount before proceeding with lunch. At the end of the school day, students return to their prison camp without books, notebooks, or anything resembling homework, as these are prohibited items in the facilities where they live.

These individuals are students in a technical college setting for seven hours a day before crossing back through the prison walls to complete their court-ordered sentence. This group of students accounts for only a small portion of the more than 1.5 million people who are incarcerated in the United States (U.S.; Bronson & Carson, 2019). Since 1985, the population of incarcerated individuals in the United States has increased 500% (The Sentencing Project, 2017).

At least 95% of those currently serving prison sentences will be released in the future, thus equating to over a million people reentering society after serving months to decades behind bars (Hughes & Wilson, n.d.).

Incarcerated individuals have limited opportunities to pursue education with factors of prison time, prison location, and educational offerings contributing to these limitations. Postsecondary education is an important function of the rehabilitative process, as it provides individuals opportunities to build knowledge, pursue personal development, and enhance job skills. For decades, higher education researchers have emphasized the value of student engagement in improving personal development and growth in the academic environment (Astin, 1984; Kuh & Hu, 2001; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). Student engagement for the purposes of this study drew from Astin (1984), National Survey of Student Engagement, and Community College Survey of Student Engagement and is described as the amount of effort students put into their studies and interactions with instructors and administrators. Higher levels of student effort will equate to greater learning outcomes and personal development (Astin, 1984).

The benefits of engaging incarcerated students in an academic setting are often ignored as successful outcomes (Castro & Gould; 2018; Ginsburg, 2014). Instead, the effectiveness of postsecondary programs is most often measured by recidivism rates (Chapell, 2004; Cho & Tyler, 2010; Fabelo, 2002; Gehring, 2000; Lockwood, Nally, Ho, & Knutson, 2012; Vacca, 2004). A meta-analysis by the RAND Corporation, a nonprofit and nonpartisan research organization, deduced that individuals who participated in correctional or prison education programs while incarcerated had a 43% lower chance of recidivating (Davis et al., 2013). The RAND study defined correctional education as: adult basic education, adult secondary education

inclusive of GED, vocational or career and technical education, and postsecondary education inclusive of college-level instruction that a student can transfer to a two or four-year college (Davis et al., 2013). More recently, Bozick, Steele, Davis, and Turner (2018) reported that 28% of incarcerated individuals who participated in correctional education were less likely to recidivate.

At a national level, the National Institute of Justice defines recidivism as being "measured by criminal acts that resulted in rearrest, reconviction or return to prison with or without a new sentence during a three-year period following the prisoner's release" (2019). The most recent national recidivism rate was published by the U.S. Department of Justice (DOJ) in 2018 following a nine-year longitudinal study of released incarcerated people. The report estimated that in the 30 states that participated in the study, 68% of individuals released from prison were arrested within the first three years following release (Alper, Markman, & Durose, 2018). The RAND report (2013) concluded that, nationally, 40% of individuals released will end up back in prison again within three years. Though Alabama did not participate in the study, the Alabama Department of Corrections defined recidivism as returning to prison within three years of release and reported a recidivism rate of 28% in 2018 (Alabama Department of Corrections [ADOC], 2018).

One of the contributing factors to this cycle of reimprisonment is that 68% of incarcerated individuals in state prisons lack a high school diploma and less than a quarter of state and federal incarcerated individuals have any secondary education (Harlow, 2003). These startling statistics provide justification for the ongoing national conversation regarding prison reform and what value higher education has and can have in prison. Higher education in prison is defined by Castro and Gould (2018) as high school equivalency courses,, programs associated

with or provided by a postsecondary institution that is accredited by the Council on Higher Education, course instruction given by two-year and four-year colleges and universities, coursework for credit or non-credit, non-degree or degree track, and courses in preparation for college (p. 3-4).

The findings by the RAND Corporation (2013) and others further indicate that higher education in prison can have a positive and life-changing impact on incarcerated individuals. Likewise, education provides skills needed to compete in the job market following release. However, studies did not consider student engagement and aspirations as related to the educational opportunities available to incarcerated individuals.

Neglected for decades, the value and importance of higher education in prison has recently gained the attention of government officials. In 2015, the Obama Administration launched the Second Chance Pell Pilot Program as an opportunity to reform the justice system and provide opportunities for incarcerated individuals to seek postsecondary education (U.S. Department of Education, 2015). Incarcerated students participating in the pilot program received Pell grants if they met Title IV eligibility (student aid criteria) and were within five years of release (U.S. Department of Education, 2015). This program was implemented at 67 institutions throughout the United States (U.S. Department of Education, 2016), with several sites in Alabama.

One of the pilot program sites is not only distinctive to Alabama, but to the nation. J. F. Ingram State Technical College (ISTC) is one of two technical colleges that are members of the Alabama Community College System (ACCS). Its distinguished attribute is that all students are incarcerated. Founded in 1965 by the state legislature as a technical college for incarcerated people, ISTC provides access to education at six locations: Main Campus, Alabama Therapeutic

Education Facility, Donaldson Correctional Facility, Draper Instructional Service Center, Red Eagle Work Center, and Tutwiler Instructional Service Center.

ISTC is accredited by the Council on Occupational Education (COE) and has a mission to provide "comprehensive education services to incarcerated adults to reduce recidivism and return responsible citizens" (ISTC College Catalog 2019-2020, p. 5). ISTC' open admissions policy applies to women and men who are eligible for enrollment as mandated by the Alabama State Board of Education. ISTC admits eligible applicants until the last day to add a class each semester.

ISTC has two different sets of admissions criteria depending on the incarcerated student's desire to enroll in short or long-term certificates or in the associate degree program. The short-term certificate program requires a minimum of 40 credit hours, while the long-term certificate program requires 60 hours. Applicants for both programs must be at least 16 years old, be recommended by the correctional facility's job board (with the warden's approval), complete the ISTC application, meet the required scores from the ACCUPLACER or Adult Basic Education Test, provide a form of identification, and have a high school diploma or GED, although exceptions can be made for technical courses under the ability to benefit criteria (ISTC Handbook 2018-2019, p. 9). The associate degree program has nearly the same entry requirements, except applicants must have their high school diploma or GED and present their transcripts.

Despite the state's commitment to providing access to multiple educational programs through ISTC, little attention is given to expanding or enhancing higher education in prisons, as the state's attention is focused on infrastructure needs. In Alabama, the long-neglected prison system has consistently received scrutiny for its treatment of incarcerated people, dilapidated

living conditions, lack of health and mental health care, and decreasing numbers of correctional officers. After a multi-year investigation, in April 2019 the DOJ ruled that the living conditions in Alabama prisons violated the eighth amendment of the U.S. Constitution and constituted cruel and unusual punishment (Investigation of Alabama's State Prisons for Men, 2019). The investigation findings asserted that incarcerated people were not protected from violence or sexual abuse in the prisons. The low number of correctional officers placed inside the prisons was of concern to the investigators.

As the state grapples with how to implement the mandates by the DOJ to conform with the standards set forth by the Constitution, funding for prison reform is uncertain. In a state with no lottery and minimal tax increases, state budget negotiations are contentious. However, budget allocation to the prison system is increasing due to the Federal investigation.

In the 2018 budget, the Alabama Department of Corrections (ADOC) received an increase of \$56 million to bring the total operating budget to \$452 million (State of Alabama General Fund, 2018). Additionally, ADOC received a one-time \$30 million supplement to recruit more correctional officers and mitigate the problems of dilapidated prison structures. The ADOC's budget increased again in 2019 with an operating budget of \$486 million (State of Alabama General Fund, 2019). Despite the financial commitment from the state to improve prison conditions, the ADOC does not provide funding for postsecondary education. The Education Trust Fund appropriates prison education funding that goes directly to the Alabama Community College System (ACCS). The ACCS provides education to incarcerated students through five of its community and technical colleges. In 2019, state appropriations for ISTC included \$8,306,671 for prison education at its six sites (ISTC Annual Report, 2019).

Funding is not the only challenge for prison education in the state of Alabama. Access to postsecondary education is also an obstacle for students. Students wishing to pursue classes through ISTC must not only be recommended by the classification officer at the correctional facility where they are housed, but also must be within ten years of release from prison.

Statement of the Problem

Incarcerated individuals in Alabama are in dire need of access to higher education. In 2017, ADOC published that the state's incarcerated population self-reported a fifth-grade education level on average (ADOC, 2017). In 2018, of the 19,000 incarcerated people in the state, more than 9,000 reported they had not completed high school and did not have a GED or college coursework; however, the average self-reported educational attainment level was 10th grade (ADOC, 2018). Alternatively, approximately 10,000 incarcerated individuals reported they did have one of the equivalencies (ADOC, 2018). Alabama ranks as the tenth highest state in incarceration rates (The Sentencing Project, 2019). As most incarcerated people will reenter society, it is vital to equip these individuals with skills to be successful; thus, this research seeks to provide a better understanding of how education can be a primary tool for this success.

Currently, 95% of individuals in prison will be released back into society (Hughes & Wilson n.d.). The likelihood of recidivism is high. Education is one tool to combat return to prison, but many incarcerated individuals do not have access to it. Community colleges are beacons for change for many incarcerated individuals, as the colleges serve as the primary education option for incarcerated students. Most often the measurement of successful educational programing is based on outcomes of recidivism rates and job placement without regard to the benefits of student engagement and the success that comes from the academic environment. Astin's (1984) Theory of Student Involvement has served as the foundational student

engagement theory that emphasized the value of students engaging in a college environment. He asserted student involvement is positively correlated with potential for personal and academic development (Astin, 1984).

There is a lack of understanding about how and if incarcerated students engage with CTE classes offered through a technical college. Additionally, there is a dearth of research using valid and reliable survey instruments to study incarcerated student engagement. While much is known about student engagement in community colleges and four-year institutions, little is known about the implications of engagement for incarcerated students.

Purpose of the Study

Outcomes of participation in postsecondary education by incarcerated students are largely measured by recidivism rates or job placement statistics (Batiuk, Lahm, McKeever, Wilcox & Wilcox, 2005; Chapell, 2004; Cho & Tyler, 2010; Davis et al., 2013; Fabelo, 2002; Gehring, 2000; Lockwood, Nally, Ho, & Knutson, 2012; Vacca, 2004). These rates are measured at the national and state level. A lower recidivism rate equates to successful rehabilitation of incarcerated people; however, this sole measurement does not account for the valuable experience of incarcerated students' engagement throughout postsecondary programs offered by technical colleges. In Alabama, ISTC's mission is to provide educational opportunities to incarcerated students through adult basic education programs and career and technical education. ISTC prepares students to secure job placements following release while also providing instruction on soft skills to help them develop into responsible citizens.

The purpose of this study was to explore incarcerated student engagement in career and technical education (CTE) by utilizing a new survey instrument, the Incarcerated Student Engagement Questionnaire (ISEQ), to systematically collect data in the areas of program

engagement, academic engagement, and student aspirations. The study investigated if differences existed among students who completed the ISEQ at three different campus locations operated by ISTC. Finally, the study sought to test a hypothetical model based on Astin and antonio's (2012) model of Input-Environment-Outcomes (IEO) to determine if incarcerated students' background characteristics and academic engagement experiences predicted two different outcomes: (a) overall satisfaction and (b) students' perception of courses inspiring them to think in new ways.

Research Questions

- What are the background characteristics, program engagement, academic engagement, reasons and goals, and factors of personal importance of incarcerated students enrolled in postsecondary career and technical education programs at ISTC?
- 2. To what extent is there a statistically significant difference in academic challenge by campus?
- 3. To what extent is there a statistically significant difference in knowledge and skill development by campus?
- 4. To what extent is there a statistically significant difference in instructor validation by campus?
- 5. To what extent is there a statistically significant difference in student engagement with instructors by campus?
- 6. What are the background characteristics, academic engagement, and instructor engagement that predict students' overall satisfaction at this college?
- 7. What are the background characteristics, academic engagement, and instructor engagement that predict students' perception of courses inspiring them to think in new ways?

Significance of the Study

A majority of incarcerated individuals will reenter society. Little research on student engagement in postsecondary education exists for incarcerated students in Alabama. There is an even larger dearth of research relating to community college involvement in the educational process particularly p related to a technical college with the sole mission of educating incarcerated students. This study will inform Alabama community colleges and the nation how educational offerings for incarcerated students can facilitate student engagement with the hope that it will encourage future exploration.

This research can significantly impact how states approach investing in higher education in prison. Results can help lawmakers and practitioners learn what goals students have for pursuing education while incarcerated and better understand how incarcerated students engage with courses and. This study emphasized the need for expanded prison education and investment in programs as scholars in the field have suggested (Castro & Gould, 2018; Lewen, 2014; Stern, 2014).

This study is significant because a national survey instrument was adapted and offered to incarcerated students, who engage with academics and personnel in a different manner as due to time constraints and living conditions that make extracurricular engagement impossible. This study explored the type of education students wish to receive and what students' reasons were for engaging in education while incarcerated.

Conceptual and Theoretical Framework

Conceptual Framework

The conceptual framework for this study was Astin and antonio's (2012) Input-Environment-Outcome (IEO) model, which is comprised of three elements. The first element,

input, is the student's background characteristics and demographics prior to entering the institution. Second, the environment is where student involvement is realized. Engagement in the classroom, with instructors, and with peers accounts for the level of involvement the student has while enrolled. Finally, outcomes are the skills and student traits that manifest in the individual post-graduation. For this study, outcomes are explored by seeking an understanding of students' GPA, educational goals, and aspirations after release. The conceptual framework is explored further in the literature review in chapter two.

Theoretical Framework

Student engagement influenced the framework for this study. The national survey instruments National Survey of Student Engagement (NSSE) and Community College Survey of Student Engagement (CCSSE) provided the basis for the formation of the ISEQ instrument utilized for this exploratory study. NSSE is administered to students as entering freshman at fouryear institutions and as seniors. CCSSE is administered to community college students. Both have similar underpinnings as they seek to measure student engagement in different settings.

NSSE describes student engagement in a college setting in two ways. One is by the "the amount of time and effort students put into their studies and other educationally purposeful activities," and the second is "how the institution deploys its resources and organizes the curriculum and other learning opportunities to get students to participate in activities that decades of research studies show are linked to student learning" (About NSSE, 2019). NSSE utilizes four themes (academic challenge, learning with peers, experiences with faculty, and campus environment) to organize engagement indicators which are further explored in chapter two. Similarly, CCSSE approaches the measurement of student engagement through student learning, persistence, and attainment with the beliefs that "the more actively engaged students

are — with college faculty and staff, with other students, with the subject matter they are studying — the more likely they are to persist in their college studies and to achieve at higher levels" (About CCSSE, 2020).

This study expanded on Alexander Astin's seminal Student Involvement Theory (1984). This widely cited work asserts that student involvement is about the quantity and quality of the effort students put into their educational environment (Astin, 1984). Essentially, the more involved a student is while in college through psychosocial and physical energy, then the more the student will experience personal development and academic learning (Astin, 1984). Involvement can be different for individual students and can be associated with academic work, engagement with faculty and administrators, and engaging in activities outside of class (Astin, 1984). Additionally, involvement can take a qualitative form through a student's level of comprehension of assignments and quantitative form through the number of hours a student spends preparing for class (Astin, 1984). The theory also suggests that an institution's practices can be evaluated by how they facilitate student involvement (Astin, 1984). Astin's work (1984) influenced countless others (Chickering & Gamson, 1987; Kuh, Schuh, Whitt, & Associates, 1991; Pascarella and Terenzini, 2005) and was a guiding theory for this study as it provided the basis to measure and learn about how incarcerated students engage in a technical college setting.

Definition of Terms

Career and Technical Education (CTE) is training in general employment skills and skills necessary for specific jobs or industries.

JF Ingram State Technical College (ISTC) is the nation's only technical college serving incarcerated students and is located in Alabama.

Department of Corrections (DOC) refers to the Alabama Department of Corrections.

Postsecondary education refers to "formal instruction provided to students who have earned or are concurrently earing a GED, high school diploma, or equivalent secondary credential. This includes programs whose purpose is academic, vocational, and continuing professional education, and excludes avocational, adult basic education, adult secondary instruction and other formal programming efforts not affiliated with an institution of higher education" (Castro, Hunter, Hardison, & Johnson-Ojeda, 2018).

Short-term certificate requires 40 hours of coursework (ISTC Student Handbook, 2019). *Long-term certificate* requires 60 hours of coursework (ISTC Student Handbook, 2019). *Recidivism* in Alabama is defined as returning to prison within three years of release (ADOC

Annual Report, 2018). *Recidivism* is defined by RAND (2013) a number of ways, including reoffending, rearrest, reconviction, reincarceration, technical parole violation, and successful completion of parole (p. 27).

Chapter Summary

This chapter introduced the problem of a lack of knowledge about incarcerated student engagement. In order to assist the growing population of incarcerated individuals, technical colleges are taking an active role in providing postsecondary education to incarcerated individuals. The focus of many recent studies is most often on recidivation numbers without regard to the students' experiences participating in postsecondary education as an incarcerated individual. This study sought to fill the gap in literature while emphasizing the vital need for expanded higher education offerings to incarcerated individuals. The subsequent chapters will provide an overview of the literature consulted for the study, the proposed methodology employed in the study, the findings, and the conclusions.

CHAPTER II:

REVIEW OF LITERATURE

Overview

This chapter synthesizes the literature consulted for this research. The chapter begins with an examination of the history of prison education in the United States. A subsequent review of evaluation studies presents the national context of prison education. This section is followed by an exploration of higher education in prison featuring recent scholarship on institutions committed to educating incarcerated students, including postsecondary education programs. A review of the role of community colleges in prison education is followed by an examination of the specific role of the Alabama Community College System (ACCS) in prison education.

Following the description of higher education in prison, scholarship about incarcerated students' experiences is presented. This section illustrates a number of environmental barriers incarcerated students encounter, along with their perceptions about postsecondary educational opportunities. The section also provides examples of literature highlighting positive attributes of pursuing postsecondary education while incarcerated.

The chapter concludes by examining student engagement theories that widely influence higher education scholarship. The final section also includes a review of survey instruments that influenced this exploratory study. Following the review of the literature, the methodology employed for this research will be described.

History of Teaching Incarcerated Students

The original terminology utilized for educating incarcerated students was "correctional education." The implications of the word "correctional" indicate how education was initially perceived as a mechanism for correcting behavior that led individuals to prison. William Rogers began offering instruction to incarcerated people at Philadelphia's Walnut Street Jail in 1789 (Chulup, 2005). This informal offering of general education to incarcerated people began an effort that would continue to grow throughout the United States.

Almost 200 years later, through Title IV of The Higher Education Act of 1965, Basic Educational Opportunity Grants were made available to incarcerated students for postsecondary education (U.S. Department of Health, Education, & Welfare, 1980). In 1972, the federal Pell Grant was introduced, resulting in increased opportunities for incarcerated individuals to gain access to prison education with financial help (Palmer, 2012; Wright, 2001). More courses were offered, and financial barriers subsided with assistance from the Pell Grants. In little more than a decade, 42 states offered postsecondary education to incarcerated individuals, with eight percent of the incarcerated population participating in some form of education (Erisman & Contardo, 2005; Palmer, 2012).

Within the last 30 years, correctional education once again gained attention at the national level. The Carl D. Perkins Vocational and Applied Technology Act Amendments of 1990 authorized the Department of Education to establish the Office of Correctional Education in 1991. This represented a renewed commitment to expanding educational opportunities to the incarcerated population.

As quickly as attention turned to prison education, the political climate shifted. In 1994, Congress passed the Violent Crime Control and Law Enforcement Act denying incarcerated people access to Pell grants; this limited educational opportunities for incarcerated individuals (H.R. Resolution 3355, 1994). As a result, almost immediately, 350 prison postsecondary education programs across the United States closed due to lack of funding (Fine et al., 2001; Palmer, 2012). The number continued to decline throughout the decade. In 1997, only 21 states still offered postsecondary education for incarcerated students (Erisman & Contardo, 2005; Palmer, 2012). In 2001, the numbers of incarcerated individuals participating in postsecondary education continued to drop by 44% (Palmer, 2012; Wright, 2001).

Regarding topics such as investment in the education of incarcerated individuals, it is standard practice for lawmakers to reconsider their positions based on popular opinion in their home districts or states (Palmer, 2012; Mastrorilli, 2016). Current literature suggests that access to Pell Grants for incarcerated people should be reconsidered. The Obama Administration launched the Second Chance Pilot Program in 2015 in an attempt to reform the justice system and provide opportunities for incarcerated people to seek education (U.S. Department of Education, 2015). Incarcerated people participating in the pilot program received Pell Grants if they met Title IV eligibility and were within five years of release (U.S. Department of Education, 2015). This program was implemented at 67 institutions throughout the country (U.S. Department of Education, 2016), with several sites in Alabama, including ISTC.

As of 2018, 47 states have at least one institution offering postsecondary credit-bearing education to incarcerated individuals (Castro, Hunter, Hardison, & Johnson-Ojeda, 2018). The number of unique institutions that are working with higher education in prisons has climbed to 229, with 202 of these offering credits for coursework (Castro et al., 2018). With the extension of

Second Chance Pell for another year, the number of institutions involved in postsecondary education is expected to rise.

Evaluation Studies

Investing in educational opportunities for incarcerated students, specifically postsecondary education, continues to be a topic of discussion on the national and state levels. In past decades, published studies have evaluated the positive and negative benefits of providing educational opportunities to incarcerated adults. The largest proportion of the studies have focused on reduced recidivism as a successful post-release outcome for students who have participated in prison education programs (Batiuk, Lahm, McKeever, & Chapell, 2004; Cho & Tyler, 2010; Lockwood, Nally, Ho, & Knutson, 2012; Vacca; 2004). A meta-analysis published by the RAND Corporation (2013), a nonprofit and nonpartisan research group, was a comprehensive resource for understanding the financial aspects of providing education to incarcerated students, the curriculum delivered to incarcerated students, and the benefits to individuals enrolled in prison education.

The RAND Report (2013) provided statistical data related to the outcomes associated with individuals pursuing education while incarcerated. The report noted that incarcerated people who participated in education while imprisoned were 43% less likely to return to prison (Davis et al., 2013). Since the initial study, researchers Bozick, Steele, Davis, and Turner (2018) reported that incarcerated individuals who participated in postsecondary education were 28% less likely to recidivate. Additionally, incarcerated students who participated in vocational or technical training were 13% more likely to find employment post-release (Davis et al., 2013).

The RAND report also emphasized cost savings to taxpayers, noting that "for every dollar spent on correctional education, five dollars are saved on three-year reincarceration costs"

(Davis et al., 2014, p. 81). While it may seem counterintuitive to spend more money on prison education, RAND (2013) asserted that investing in education for this population would have positive return on investment, even with one-third of the prison population recidivating after release.

Recidivism and employment status are the two criteria that are the basis for most studies evaluating successful outcomes for incarcerated individuals. Education for incarcerated students does have a positive effect on reducing recidivism rates and assisting with increased employment outcomes (Davis et al., 2013; Hall, 2015).

Since 2014, scholars have critically reviewed the literature available on the connection between increased access to postsecondary education and reduced recidivism. Frey (2014) examined the method in which educational journals portrayed prison education. The findings by Frey (2014) revealed that few empirical studies were represented in the journals. The most significant finding in Frey's (2014) critical review of the literature was the continuous study of vocational training as a primary aspect of prison education.

Additional studies provided employment as a successful outcome following release (Davis et al., 2013; Duwe & Clark, 2014; Pryor & Thompkins, 2012). In addition to metaanalyses, case studies also provide additional information related to recidivism rates and employment opportunities. For example, Duwe and Clark (2014) measured post-release employment results of Minnesota prisoners from 2007 and 2008, concluding that although postsecondary correctional education did not have a significant impact on recidivism rates, prisoners with postsecondary education had significantly higher chances of securing employment within two years of release (Duwe & Clark, 2014). Likewise, Kim and Clark (2013) utilized data from the New York Department of Corrections and Community Supervision to examine a

specific population and found that recidivism rates decreased as incarcerated people participated in education while incarcerated.

The literature available on post-release outcomes for incarcerated students is more extensive than the previous themes discussed. One reason for the increased availability of these studies is that federal and state spending on prisons is consistently scrutinized by lawmakers and citizens, which increases demand for measures of employment following release and rates of recidivism. Within the last ten years, recidivism rates and post-release employment rates have been measured on a larger scale, as indicated by the meta-analysis produced by the RAND Corporation (2013). Its findings revealed that 43% of released incarcerated people who received some amount of postsecondary education were less likely to recidivate within three years of release (Davis et al., 2013).

Another positive outcome of participating in postsecondary education in prison, apart from job placement and a reduced risk of recidivism, is preparation to actively participate in society. Frank, Olmstead, and Pigg (2013) found that incarcerated people who participated in a service-learning project at Wabash Correctional Facility believed that community service and helping others was an important part of the process of reentering society. This study was unique compared to the other works reviewed, as it provided a glimpse into another type of programming that produced positive outcomes for incarcerated people.

While most of the literature reviewed illustrated the positive impact for incarcerated students participating in postsecondary education, there was an exception. One study found a negative relationship between postsecondary correctional education and outcomes. Meyer and Randel (2013) conducted a study in six states at various prisons that implemented programs designed by the nonprofit, Correctional Education Association. Completion of these certificate

programs resulted in acquiring an associate degree in arts. Utilizing a cluster randomized design, the findings resulted in lower test scores for the students following a year of coursework (Meyer & Randel, 2013). These findings of were criticized by Reed (2014 who found faults with the study's conclusion due in part to the study design. Meyer and Randel (2013) compared incarcerated students' lack of academic improvement to other postsecondary education participants in similar programs, but not in the exact program (Reed, 2014). Reed (2014) found this conclusion to be irrelevant to improvement in academic coursework.

Reed's (2014) study was unlike the other works included in the literature review as it explored the academic achievement of adult incarcerated students participating in correctional education. Reed concluded that in all six studies reviewed, incarcerated students improved their academic competencies as measured by standardized tests (Reed, 2014). In recent years, many education scholars have criticized the focus on reduced recidivism as the ultimate goal for offering access to postsecondary education in prison. The following section illustrates these criticisms in greater detail.

Higher Education in Prisons

Emerging scholarship of higher education in prison supports a shift away from the nomenclature "correctional education," as it not only encompasses any level of education provided to incarcerated individuals, but it also implies that education is used as an intervention tool (Castro; 2018; Castro & Gould, 2018). Furthermore, scholars support eliminating the use of dehumanizing terms of incarcerated individuals such as "inmate" or "prisoner" (Stern, 2014). Referenced in chapter one, Castro and Gould (2018) define higher education in prison as:

• courses provided to students who have earned a high school diploma, GED, or equivalent secondary credential;
- courses and programs provided by or in close partnership with a postsecondary institution accredited by the Council on Higher Education Accreditation;
- instruction provided by two-year and four-year colleges and universities with public, private, or nonprofit status;
- credit or not for credit coursework;
- degree or non-degree granting pathways; and
- courses for college preparation (p. 3-4).

Recent higher education in prison scholarship suggests that recidivism and job placement should not be the only outcomes associated with prison education (Castro, 2018; Castro & Gould, 2018; Castro et al., 2018; Ginsburg, 2014; Reed, 2014; Scott, 2014).

Prison Postsecondary Education Programs

Incarcerated students are limited in postsecondary education programming, as evidenced throughout the literature (Castro at al., 2015; Gorgol & Sponslor, 2011). Most often these students have access to a vocational or technical curriculum. The education students receive in vocational and technical fields primarily prepares them to acquire skilled labor jobs following release.

The delivery method for instruction is largely face-to-face and facilitated by an onsite instructor. As studies suggest, this presents challenges in terms of finding qualified instructors who will accept teaching positions due to security concerns or due to the rural areas in which facilities are located (Gorgol & Sponsler, 2011). The instructors provide hands-on learning activities and facilitate prerecorded sessions (Meyer et al., 2010). Some works are highly critical of the instructors in correctional facilities (Pryor & Thompkins, 2013). These criticisms most often derive from the lack of qualified instructors willing to teach. Borden, Richardson, and Meyer (2012) researched best practices for incorporating educational programs in prison facilities. The findings resulted in their creation of a practical guide. They suggested that an important factor of correctional education programs relates to student support (Borden et al., 2012). This manifests in the system as assessing students' needs in the classroom by offering blended programming with vocational and standard academic education (Borden et al., 2012). This guide also asserted that distance learning should be incorporated as part of the curriculum, as it provides more access for students and expanded opportunities for additional classes (Borden et al., 2012).

Barringer-Brown (2015) conducted a study of 53 faculty members to better understand the perceptions of teaching in selected penal facilities in Virginia. This study also offered insight into perceptions of students in these prisons. Students in postsecondary correctional education programs often performed as well, if not better than non-incarcerated students (Barringer-Brown, 2015). This study revealed that faculty teaching in these facilities lacked the necessary resources to provide educational opportunities to students besides textbooks. Similarly, faculty did not have access to a library the internet, which seriously compromised 21st-century learning opportunities (Barringer-Brown, 2015). The lack of resource funding for correctional education is concerning, as it impacts faculty members' ability to teach the skills needed to reenter society and reduce the risk of recidivism.

Role of Community Colleges in Prison Education

Research is available that determines the impact of education on incarcerated individuals, but the type of programing offered is still somewhat limited (Wheeldon, 2011). Apart from academic, vocational, and technical program offerings in prisons, new programs are beginning to receive attention. The role of community colleges in prison education is a growing field of

interest within the topic of higher education in prisons. The RAND report (2013) highlighted the significance community colleges have in the delivery of course content. Likewise, the U.S. Department of Education (2009) also concentrated on the unique role these institutions have in educating incarcerated students. This report emphasized the leading role community colleges play in the U.S. by providing workforce education and training in an effort to reduce recidivism and increase employability. It also highlighted different states' partnerships with prisons on issues related to the following:(a) education and employment needs of incarcerated people; (b) formation, coordination, and funding of partnerships; (c) partnership benefits to incarcerated people, prisons, community colleges, and the public; (d) challenges partnerships face; and (e) resources and tools available to community colleges and prisons that want to form or strengthen a partnership (U.S. Department of Education, 2009). The report provides insight into several community college partnerships with prisons in different states and utilizes a 2005 analysis by the Institute for Higher Education Policy to provide awareness as to how best practices can be reproduced by other states (U.S. Department of Education, 2009). Specifically, the report included ISTC in Alabama, as it fits into the category of a technical college s (U.S. Department of Education, 2009).

Doran Larson (2015) made the argument that community colleges can connect the states' efforts to solve the national problem of mass incarceration. One of the missions of community colleges is to make education accessible for all students. This positions community colleges to embrace opportunities to offer more opportunities to incarcerated students.

Role of Alabama Community Colleges

The Alabama Community College System (ACCS) plays a vital role in educating incarcerated students throughout the state. Currently, sixteen two-year colleges in Alabama

provide postsecondary correctional education services to incarcerated people statewide (Correctional and Post-Correctional Education, n.d.). In addition, ACCS provides career and technical programs that lead to certificates and degrees through adult education and GED testing services offered at several state correctional facilities. Students participate in programs such as automotive collision repair, automotive service technology, electrical technology, and welding. ACCS colleges provide students with educational opportunities and technical and job-skills training, which are essential tools needed to obtain gainful employment. ACCS receives state funding to support each of these programs.

Incarcerated Students

Engagement of incarcerated students is an area within prison education research lacking attention. Literature on the incarcerated student experience and engagement techniques is limited in comparison to the availability of studies related to recidivism rates and employment. As scholars shift research focus, students and their experiences are slowly gaining attention.

Recent studies provide information on demographics of students and the impact these factors can have on the students' educational journey. Pryor and Thomkins (2012) provided insight into the socioeconomic status of a large segment of the incarcerated population as individuals who originate from low socioeconomic standing and have little education. Additionally, incarcerated students have minimal support from networks of family and friends (Meyer et al., 2010

Funding is one of the many barriers for students to access postsecondary education, and funding is also a challenge for the correctional facility providing opportunities for incarcerated students to attend classes or allow for correspondence courses. As previously mentioned, Pell Grants were available for incarcerated students until Congress passed the 1994 Violent Crime

Control and Law Enforcement Act (H.R. Resolution 3355, 1994). This shift in policy eliminated an important funding source for students requiring financial aid to pursue education while imprisoned. Without financial assistance through Pell Grants, incarcerated students grapple with finding other ways to fund their education. Family members are most often the ones that finance the student's education while incarcerated (Gorgol and Sponsler, 2011).

One study indicated that incarcerated students did not experience outside distractions, which allowed for more time allocated to studying and was advantageous to the incarcerated student as opposed to the traditional college student (Runell, 2016). Incarcerated students have limited access to support from family members on a regular basis; however, a study noted that students supported and encouraged one another in the classroom in correctional institutions (Meyer et al., 2010). Instructors and site coordinators also demonstrated support for student success by providing additional provisions for those who needed them and advocating on their behalf to other instructors (Meyer et al., 2010). In contrast, support from prison staff members varied among the studies reviewed. Prison staff encouraged incarcerated individuals to enroll in classes in some facilities, while others discouraged students and at times punished students by restricting access to classes (Meyer et al., 2010).

Education in prison facilities is perceived by many students as an "escape" from the monotonous nature of incarceration (Behan, 2014; Runell, 2016). Similarly, incarcerated students also view participation in correctional education as a vehicle for change. Following release, the goal for students is to use the education received to propel themselves into the workforce and adjust to returning home (Runell, 2016).

While many studies presented the positive aspects of correctional education for incarcerated students, the literature also presented numerous barriers for incarcerated students

pursuing postsecondary education. Similar to non-incarcerated students, access to postsecondary education is a prominent obstacle or incarcerated students. Students not only lack support networks to encourage them to pursue education, but they often encounter disgruntled prison staff who do not support education of incarcerated individuals and often work to prevent them from attending classes (Meyer et al., 2010). Another significant barrier students encounter is the lack of access to education opportunities. Gorgol and Sponslor (2011) found that traditional delivery of course content through in-person teaching is most often utilized, which limits the amount of time students can be engaged in the coursework and also presents a challenge finding instructors who are willing to enter correctional facilities to teach.

The literature available on programming most often provides information related to vocational and technical training programs. One study noted that three out of four incarcerated students pursued education leading to a vocational or technical certificate (Gorgol & Sponslor, 2011). Incarcerated students are also limited in terms of types of educational programs available to them.

Tewksbury and Stengel (2006) noted that students who participated in academic programs did so because they wanted to improve themselves, while more students who participated in vocational programs did so to find employment following release. Reed (2014) synthesized six studies to reveal that students who participated in correctional education performed better on standardized tests that were given to them by the instructional site. Lewen (2014) provided examples of how students at San Quentin enhanced written and verbal skillsets through participating in higher education programs. Additionally, critical thinking skills students develop aid with navigating through society and the complex environments (Lewen, 2014).

The availability of postsecondary education is not only limited to funding but can also be largely dependent on political factors. Just as the Violent Crime Control and Law Enforcement Act (1994) removed the option to access Pell Grants, legislators contract and expand investment in prison education when administrations change (Mastrorilli, 2016; Palmer, 2012). However, recent works indicate that more opportunities to apply for Pell Grants might be available for incarcerated individuals. The Obama Administration's commitment to reform the criminal justice system to provide more efficiency and fairness prompted the launch of the Second Chance Pilot Program in 2016 (U.S. Department of Education, 2015). Pell Grants were made available to programs that applied and were accepted to the experiment. Incarcerated individuals participating in the pilot program who met Title IV eligibility and were within five years of release were admitted to participate (U.S. Department of Education, 2015). Incarcerated students' challenge of acquiring funding for postsecondary education could soon change depending on the results of the Second Chance Pilot Program.

Incarcerated students also encounter logistical barriers to accessing postsecondary education. Incarcerated students face obstacles similar to non-incarcerated students when confronted with transferring credit to other correctional education programs; however, incarcerated students do not have control over the timing of transfer. Incarcerated individuals are often transferred to other prisons without consideration for the educational programs they are pursuing in the current facility. This results in lost credit and failure to complete their degree or certificate program (Pryor & Thompkins, 2013).

Another barrier for incarcerated students to overcome in order to access education stems from negative exchanges with prison staff. Often, potential students experience hostility from correctional officers who oppose educational opportunities for incarcerated people (Meyer et al.,

2010). Additionally, some prison facilities use education as a source of social control by removing educational access for what is deemed bad behavior (Pryor & Thompkins, 2013). This results in students missing opportunities to participate in the learning process in the classroom or having access to libraries and other materials removed from daily use.

Incarcerated students also experience an environment that is not conducive to success when given the opportunity to participate in postsecondary correctional education. In some facilities, time available for studying is less restrictive, while other facilities do not allow any time for studying. But often prisons are loud, which does not lend to productive studying. Another limitation for students is the lack of resources and materials needed for learning. Robert Agnew's (2001) general strain theory suggests that when incarcerated individuals are faced with negative conditions, they are more likely to experience a damaging emotional state. When incarcerated students reach this state, they are less likely to persevere in educational programs, which prevents them from acquiring skills that can make them successful in the workforce following release from prison. The negative conditions incarcerated students encounter are numerous, as provided in the examples throughout the literature.

Student Engagement Theories

Student engagement in four-year institutions and two-year institutions is ever evolving. One key finding of student engagement scholars is that learning is directly related to what students do in the college setting (Astin, 1985; Kuh, Schuh, Whitt, & Associates, 1991). In 1984, renowned scholar Alexander Astin introduced the concept of the theory of student involvement. Astin (1984) described a correlation between the desired outcomes of institutions and student involvement. As Kuh (2009) notes, institutions also have a role in encouraging student

engagement. For Astin, student involvement was defined in terms of student engagement with student organizations and co-curricular activities.

Defined earlier, Astin and antonio's IEO model of engagement utilizes input, environment, and outcomes as central elements when measuring student engagement. The inputs are student background characteristics that the student brings with them to the college setting. Environmental factors are the experiences students have once in college. This can be in the classroom setting and during interactions with faculty and peers. Outcomes can best be characterized as the results that come from both the student's background characteristics and the environment that produce learning outcomes.

Regardless of student background characteristics such as race or first-generation college status, the results of engagement are usually positive for students (Greene, Marti, & McClenney, 2008; Kuh, 2003, 2009). However, some students benefit more than others. For example, an effort gap was identified for African-American students at two- and four-year institutions — despite reporting spending more time studying compared to the White students at the institution, African-American students still earned lower grades (McClenney et al., 2008). Kuh, Cruce, Shoup, Kinzie, and Gonyea (2008) found that while all students benefit from engagement, lower achieving students and students of color benefit more, as indicated by first-year grades and persistence.

Sense of Belonging

Terrell Strayhorn (2019) defined sense of belonging in the college environment as referring "to students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the campus community or others on campus such as faculty, staff,

and peers" (p. 4). A sense of belonging can facilitate positive outcomes for students such as academic success and persistence in an educational setting (Hausmann, Schofield, & Woods, 2007; Rhee, 2008). The positive relationships students build with instructors, administrators, and peers are essential to creating the sense of belonging for students. These supportive relationships are essential for student retention (Maestas, Vaquera, & Zehr, 2007).

Student Satisfaction

Higher education scholarship has consistently utilized student satisfaction as a measurable outcome of meaningful ways students engage in college with academic and non-academic activities that foster a positive experience (Baker & Siryk, 1989; Bean & Creswell, 1980; Pascarella & Terenzini, 2005; Strayhorn, 2011). Zhang, Laanan, and Adamuti-Trache (2018) discovered through their research with students transferring to four-year institutions, that coursework emphasizing higher levels of thinking along with student interaction with faculty and other institutional support proved to be engagement factors that significantly contributed to student satisfaction.

Validation

Another measure of student engagement introduced by Rendon (1994) focused less on student engagement with coursework and activities and more on the interaction between faculty and students in a two-year institution. Rendon (1994) found that when students were validated, or supported, by instructors, then students gained more confidence in their abilities to succeed. Additionally, findings concluded that not all students learn or engage in the same form, thus further indicating that validation was important for student success.

Incarcerated student engagement

There is a dearth of theories focused on incarcerated student engagement. Champion and Noble (2016) provided one theory for this population, known as the Prisoners Learning Alliance's theory of change. This theory incorporates five broad themes that explore the benefits of incarcerated students participating in education. These themes are listed below.

1. Prison culture accounts for the effect of education on the prison environment and culture.

2. Well-being is the effect learning can have on improving health and well-being.

3. Human capital is the motivation to change and move forward, to reflect the way that education can (a) start people on a journey to personal change, and (b) help them continue that journey.

4. Social capital is belonging to and being a part of community, and active engagement to reflect the role education can play in (a) improving peoples' ability to relate to others, and (b) empowering them to actively participate in and positively contribute to society and their family.

5. Knowledge, job readiness, and employability are the results more recognized of the role that education plays in helping people to develop the skills needed to improve their lives and move towards employment or self-employment.

If each of these five elements are addressed, the assumption is that each outcome will potentially contribute to the improvement of one's finance, family, employment, health, substance misuse, attitudes, thinking, and behavior, which will reduce rates of recidivism. While this theory complements the use of Astin and antonio's IEO model, the theory of change does not account for the demographic factors that can influence a student's engagement with education.

Community College Student Survey of Student Engagement

First-year and senior students enrolled in four-year colleges participate in the National Survey of Student Engagement's (NSSE) The College Student Report survey. This survey instrument assesses the levels of student engagement on college campuses. NSSE describes the research and provides empirical data as a means to report institution and student behavior that are "associated with desired outcomes of college. NSSE doesn't assess student learning directly, but survey results point to areas where colleges and universities are performing well and aspects of the undergraduate experience that could be improved" (NSSE, 2020). The data give prospective students and families insight into students' experiences at an institution. NSSE's insights into student experience initiated a need for community colleges to survey the student population to learn more about their behaviors and experiences at two-year institutions. The Community College Survey of Student Engagement (CCSSE) was created in 2001 in partnership with NSSE. Like four-year institutions, community and technical colleges were faced with demands from accrediting organizations to improve students' learning experiences and retention rates (CCSSE, 2020a).

The CCSSE is focused on student engagement. Drawing from works by Chickering and Gamson (1987), Pascarella and Terenzini (1991), and Tinto (1993), CCSSE utilizes the "connection of student engagement to both learning and retention" to form the empirical foundation for the instrument (CCSSE, 2020a.). The survey is organized into five groups of survey questions related to student engagement and the positive effects related to student learning and persistence. The five benchmarks are active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners (CCSSE, 2020b).

The survey instrument measures frequency of a variety of behaviors including student participation in classroom discussions and interaction with faculty members and other students. Additional questions explore students' participation in orientation sessions, "internships or clinical placements, developmental education, and organized learning communities" (CCSSE, 2020a). Students are also asked how many hours a week they spend preparing for class, studying outside of the classroom setting, engaging in campus organizations, and conducting activities relating to home life.

Another purpose of the survey is to determine the frequency with which students engage with academic support services and student support services, the satisfaction of students with these services, and the importance of these services. Academic advising, career counseling, job placement assistance, peer or other tutoring, skill labs, child care, financial aid advising, computer labs, student organizations, transfer advising, library resources and services, services for students with disabilities, and services for active military and veterans are all variables included in the questionnaire. The frequency is measured from "5 or more times" to "never." Satisfaction of students is a four-point scale from "very" to "not available," while the importance is measured on a three-point scale from "very" to "not at all."

Other questions on the survey inquire about the how the college emphasizes support for helping students succeed in college, cope with non-academic work, pursue financial support, and more. Additionally, students are asked how their experiences at the college relate to knowledge skills and personal development. This set of questions is specific to not only acquiring skills for job preparation, but also learning how to think clearly, solve problems, and write effectively.

CCSSE Benchmarks and Validity

Since its creation in 2001, CCSSE has served as the standard by which to measure student engagement of community college students. In order to validate the research, CCSSE connected the survey with three external student data sets (McClenney & Adkins, 2006). These data sets were diverse, as CCSSE understood that community colleges vary in terms of student population and the need to engage students in a different manner. The outcome measures were analyzed by multiple regression, correlations, and logistic regression (McClenney & Adkins, 2006).

Following the analysis, CCSSE concluded that the research from the three studies "validate CCSSE's use of student engagement as a proxy for student academic achievement and persistence. CCSSE benchmarks consistently exhibited a positive relationship with outcome measures" (McClenney & Adkins, 2006, p. 6). Additionally, the findings demonstrated "positive associations between student engagement and both the number of terms enrolled and credit hours completed" and "CCSSE's five benchmarks of effective educational practice were predictably related to outcome measures" (McClenney & Adkins, 2006, p. 6).

Chapter Summary

This chapter synthesized the literature consulted for this study. The chapter introduced the history of prison education in the United States. A review of evaluation studies presented the national context of prison education. Recent scholarship on higher education provided an overview of how scholars are framing research on educating incarcerated students, including postsecondary education programs that are offered. A review of the role of community colleges in prison education followed this section and provided an overview of the specific role of the Alabama Community College System (ACCS) in prison education. Literature on the incarcerated

student experiences was presented in order to illustrate a number of environmental barriers incarcerated students encountered, positive attributes of pursuing postsecondary education and students' perceptions about postsecondary educational opportunities. The chapter concluded with an overview of student engagement theories that widely influence higher education scholarship. The final section also included a review of survey instruments that influenced this exploratory study. The following chapter illustrates the methodology employed for this study. Figure 1: Literature Map



CHAPTER III:

METHODOLOGY

Overview

This chapter describes the methodological approach utilized for this study. The research design, site selection, population and sample, instrumentation, data collection, variables, and data analysis will be discussed. The chapter concludes with ethical considerations, limitations, and delimitations of the exploratory quantitative research study.

Research Questions

This exploratory quantitative study explored incarcerated student engagement in CTE by utilizing a new survey instrument, the Incarcerated Student Engagement Questionnaire (ISEQ), to systematically collect data in the areas of program engagement, academic engagement, and aspirations. The study sought to test a hypothetical model based on Astin and antonio's (2012) model of Input-Environment-Outcomes (IEO) to determine if incarcerated students' background characteristics and academic engagement experiences predicted two different outcomes: (a) overall satisfaction and (b) students' perception of courses inspiring them to think in new ways. Based on these goals, the following research questions guided the study:

 What are the background characteristics, program engagement, academic engagement, reasons and goals, and factors of personal importance of incarcerated students enrolled in postsecondary CTE programs at ISTC?

- 2. To what extent is there a statistically significant difference in academic challenge by campus?
- 3. To what extent is there a statistically significant difference in knowledge and skill development by campus?
- 4. To what extent is there a statistically significant difference in instructor validation by campus?
- 5. To what extent is there a statistically significant difference in student engagement with instructors by campus?
- 6. What are the background characteristics, academic engagement, and instructor engagement that predict students' overall satisfaction at this college?
- 7. What are the background characteristics, academic engagement, and instructor engagement that predict students' perception of courses inspiring them to think in new ways?

Research Design

The foundation for the researcher's approach to this exploratory study was the postpositivist worldview. Creswell and Creswell (2018) describe the postpositivist worldview as a "deterministic philosophy," meaning that in most cases, causes determine the impact of the results (p .6). The traditional positivist lens is grounded in the idea of absolute truth, as Creswell and Creswell (2018) note that postpositivist philosophy acknowledges that a researcher cannot be "absolutely positive" about the results when human behavior is involved (p. 6). A postpositivist's approach to research is aligned with the scientific method; the researcher approaches a study with a theory, and then collects data in order to draw conclusions about the theory.

The postpositivist position in research is best defined by Phillips and Burbules (2000), who describe five central beliefs:

- 1. With no absolute truths, the knowledge of the time is supported by the results.
- 2. A theory is the basis of quantitative research that is tested and refined depending on the findings. The assertions of the theory change and adapt based on the knowledge acquired throughout the research.
- The researcher relies on data, evidence, and rational considerations as part of formulating knowledge throughout the research process.
- 4. The purpose of the research is to formulate true statements that address the research situation or causal relationships.
- 5. A researcher's bias must be examined, and objectivity must be central to research.

Based on the researcher's postpositivist framework, this study employed a quantitative approach utilizing survey research, providing a tool for understanding what Creswell (2018) described as the "trends, attitudes and opinions of a population." The survey research methodology was appropriate, as the goal was to conduct an exploratory study collecting information from incarcerated students participating in postsecondary education through ISTC at different locations and in different courses. The survey instrument utilized for this study was created specifically for this population of students, who face limitations engaging in coursework outside of the classroom setting. The survey was designed by adapting questions from the Community College Survey of Student Engagement (CCSSE) and Your First College Year Survey (YFCY) from the Higher Education Research Institute at the University of California, Los Angeles. A pen and paper questionnaire was distributed to participants as the population did not have access to an online survey. The survey instrument will be described in the instrument section of this chapter. The quantitative analysis allowed the researcher to survey students participating in career and technical educational offerings at three sites operated by ISTC. This form of research was selected to examine the way students experience education in a confined setting. The survey was cross-sectional. Data were collected from individual participants in one timeframe.

Researcher Positionality

While the researcher utilized the postpositivist lens for this study to systematically collect and analyze data, the researcher most often approaches research through the transformative worldview. This approach to research is advocacy-driven for marginalized groups; thus, it is action-focused to address issues of oppressed populations (Mertens, 2010). As such, the researcher selected the topic of study because the incarcerated population is often stigmatized and unfairly categorized into a homogenous group.

Having lived in Alabama for decades, the researcher is familiar with the problems that have plagued the state's prison system and the limited opportunities given to the incarcerated population. The researcher holds the firm belief that education changes lives. Having no direct experience with individuals who served time in prison, the concept of how education can impact students who may not have had previous access to higher education interested the researcher early in her doctoral program. As the years progressed, the researcher developed good rapport with the ISTC President, administrators, and ADOC.

The researcher was inspired each time she visited the campus for graduations or legislative days. She first approached her work assessing the outcomes of how postsecondary education at ISTC could lead to post-release employment. As she continued to learn more about ISTC and the students, she became interested in how students engaged in the classroom and with the community college.

Research Setting

The Alabama Community College System (ACCS) is comprised of 24 community and technical colleges throughout the state. ISTC is one of two technical colleges and one of the 16 ACCS colleges offering educational courses to incarcerated students through 25 educational and technical programs at 40 sites throughout the state (ACCS, 2019.). ISTC is the only technical community college with a student body comprised entirely of incarcerated students. Thus, this assisted the researcher with delimiting the research to one technical college. Located 30 miles outside of Montgomery, ISTC has six sites where incarcerated students have access to postsecondary education. ISTC has a central office on Main Campus, with instruction also offered at Alabama Therapeutic Education Facility, Donaldson Correctional Facility, Draper Instructional Service Center, Red Eagle Work Center, and Tutwiler Instructional Service Center.

Men and women attend classes in separate facilities. Main Campus, Draper Instructional Service Center, and Tutwiler Instructional Service Center were selected for this study because classroom instruction takes place outside of the prison facility. This setting more fully simulates a technical college experience. Students at Main Campus arrive by bus from one of the nearby correctional facilities, or they walk a short distance from the correctional facility adjacent to the campus. Students at Draper physically leave their facility and cross through a guarded entry onto the Draper campus grounds. At Tutwiler, students attend classes in the ISTC facility that is adjacent to the correctional facility.

Table 1 represents the distribution of CTE programs of study at the three selected sites. Not all CTE programs are offered at each instructional campus. Only the programs that offer certificates following completion were included in this research. The certificate programs are designed as short-term and long-term programs of study. A short-term certificate program

requires 30 credit hours, while the long-term certificate program requires 40 hours. An Associate in Applied Technology degree is also offered but was excluded from this study, as no students were currently participating in that educational track. The distribution of programs demonstrates the diversity of the offerings at each site.

Table 1

| Program of study | Main | Draper | Tutwiler |
|--|------|--------|----------|
| Automotive body repair | | Х | |
| Automotive mechanics (technology) | Х | | Х |
| Barbering | Х | Х | |
| Cabinet Making | Х | | |
| Carpentry | Х | | |
| Cosmetology | | | Х |
| Diesel mechanics | | Х | |
| Electrical technology | | Х | |
| HVAC | Х | Х | |
| Logistics | | Х | Х |
| Masonry | | Х | |
| Office information system (administration) | | | Х |
| Plumbing | Х | Х | |
| Upholstery | Х | | |
| Welding | Х | Х | Х |

Programs of Study at Selected Sites

Population and Sample

ISTC serves incarcerated students in Alabama through a range of programs. These programs offer not only technical education, but also life skills training to foster successful reentry into society. Enrollment in CTE provided by ISTC has increased in the last few years as indicated by Table 2. These figures are inclusive of all sites served by ISTC.

Table 2

Ingram State Technical College Spring Enrollment 2016-2019

| | (Male/Female) | (Male/Female) | (Male/Female) |
|----------------------------|---------------|---------------|---------------|
| Career technical education | 401 | 384 | 506 |
| | (294/107) | (292/92) | (376/130) |

Note. Source: ISTC Annual Reports, 2017, 2018, 2019

The target population for this study was all adult incarcerated students enrolled in CTE courses through ISTC at Main Campus, Draper Campus, and Tutwiler Campus. Main and Draper campuses offer classes exclusively to male students, while Tutwiler Campus offers classes exclusively to female students. Student participants were enrolled in short- and/or long-term certificate programs in CTE for Spring 2020. Adult incarcerated students enrolled in adult basic education were excluded. Enrollment numbers provided by ISTC for spring 2020 indicated the population of N =397 were as follows: Draper (n = 143), Main (n = 119), and Tutwiler (n = 135). The sample for this study was n = 226 with participants at the campus locations as follows: Draper (n = 72), Main (n = 106), and Tutwiler (n = 48). The response rate for the study was 57%.

The Instrument

A survey instrument was utilized for this exploratory quantitative study. The Incarcerated Student Engagement Survey (ISEQ) was developed by the researcher as part of a larger study by the Prison Education Research Lab (PERL) at the University of Alabama. PERL was founded in 2017 by Frankie Santos Laanan to advance the research of higher education in prison with an interest in Alabama. The survey instrument was vetted by experts Frankie Santos Laanan, creator of the Laanan Transfer Student Questionnaire, and E. Michael Bohlig, Assistant Director of Research for the Center for Community College Student Engagement. Utilizing questions from the Community College Survey of Student Engagement (CCSSE) and modifying them to align with incarcerated students' experience in the technical college setting allowed the researcher to conduct an exploratory study of student engagement for a population lacking access to the opportunities many community college students have while pursuing similar certificate programs. The Survey of Entering Student Engagement (SENSE) and the Cooperative Institutional Research Program (CIRP) Freshman Survey from the Higher Education Research Institute (HERI) were also consulted when constructing the ISEQ survey instrument.

Since 2001, the national CCSSE instrument annually measures community college students' behavioral traits and engagement with institutions (McClenney, Marti, & Adkins, 2006). Expanding on decades of theoretical student engagement research, CCSSE further measures and affirms that student engagement correlates with student outcomes (Astin, 1985; Pace, 1984; Pascarella & Terenzini, 2005; Tinto, 1993).

Astin and antonio's (2012) IEO model guides the structure of the ISEQ and the questions asked throughout the questionnaire. Background characteristics represent the input (I), program and classroom engagement represent the Environment (E), and aspirations represent the Outcomes (O).

Similar to the CCSSE, the ISEQ was constructed to assess how incarcerated students engage with the institution, coursework, and instructors. The benchmarks established by CCSSE provided guidance to the researcher for approaching the exploratory study. Those benchmarks

include active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners. The ISEQ explored incarcerated student engagement with programs, engagement with academics, engagement with instructors, personal goals, and aspirations. The ISEQ was organized into four sections: program engagement, classroom engagement, student aspirations, and background characteristics (see Appendix C).

Program Engagement

The first section of the ISEQ, program engagement, elicited responses to questions about the program students were currently pursuing. All CTE courses were listed, enabling the student to select one option. Motivation to pursue the program was queried to understand the impetus for course selection. While students at the college were limited to CTE programs, another question asked students about their interest in taking courses not currently offered. For example, these classes included: reading, writing and composition, art, finance, business management, history, math, science, marketing, computer programming, and foreign language.

Academic Engagement

This section of the survey derived much of the content from CCSSE. For example, it incorporated CCSSE's active and collaborative learning benchmark, which gauges how students actively learn by working with others to solve problems that provide them with skills to manage different situations they will encounter in their personal lives and future work environments (CCSSE, 2020b). The ISEQ also included measurements how frequently students asked questions in class and gave presentations. One CCSSE item was changed to make it applicable to the population: instead of asking how frequently students discussed ideas from the readings with others outside of class, the ISEQ utilized the same concept with the appropriate terminology. This included how frequently students discussed ideas with people living in their facility who did

not attend classes, and an additional question asked how frequently students discussed classes with guards.

Two of the questions from the CCSSE benchmark of student effort were also included in this section. Students were asked how frequently they attended class without finishing an assignment and how many hours they spent preparing for classes. CCSSE's benchmark assesses student "time on task" to measure the time students apply themselves (CCSSE, 2020b).

CCSSE's academic challenge benchmark was also incorporated into the ISEQ with some variations. For example, students were asked how frequently they worked harder than they thought they could on an assignment, while the CCSSE asked if they worked harder than they thought they could to meet an instructor's standards or expectations. Another question on the ISEQ, similar to the benchmark, paired the stem "how much the coursework emphasized the following mental activities" with the following items: analyzing the basic elements of an idea, experience, or theory; forming a new idea or understanding from various pieces of information; making judgments about the value or soundness of information, arguments, or methods; and applying theories or concepts to practical problems in new situations. The CCSSE academic challenge construct measures the complexity of the mental work of students (CCSSE, 2020b).

The CCSSE student-faculty interaction benchmark was modified to measure how frequently students talked to instructors about grades, talked about career plans with an instructor or advisor, and received feedback from instructors about grades. The ISEQ also incorporated a question about how frequently students discussed ideas with instructors. CCSSE's benchmark utilizes this grouping of questions to measure student's personal interaction with faculty, as it strengthens their relationship with the college and helps students persist through college (CCSSE, 2020b).

The ISEQ asked several questions about instructors' roles in the students' educational experience. One asked students how often instructors encouraged them to study on their own, gave the support they needed to complete classes, used computers in class, and discussed career goals with them. Different from the CCSSE benchmark, this set of questions sought to understand instructor-initiated communication.

The final construct of CCSSE, support for learners, was not incorporated into the construct verbatim; however, ISEQ inquired about the level of academic support students perceived from other students, instructors, administrators, and campus student support services. CCSSE utilizes the construct of questions to determine student satisfaction with community colleges and the services benefitting students with academics and career planning (CCSSE, 202b).

The ISEQ inquired about students' perceptions of their experiences at the college contributing to their knowledge, skills, and personal development. The following items were included: acquiring job-or-work related knowledge and skills, speaking and writing clearly, analyzing numerical and statistical information, and solving real-world problems. Responses were measured with a Likert scale.

Other questions on the ISEQ inquired about GPA, student overall satisfaction with ISTC, and whether students would recommend the program to others. The ISEQ also asked if students were involved in any campus organizations such as student honor societies and ambassador programs.

Aspirations

The third section of the survey assessed students' aspirations following release and measured students' perceived value of participating in the programing offered by the institution.

The relevant items on the ISEQ addressed obtaining a job, adjusting to returning home, working with others in a similar field, and participating in community events. Students were asked about their reasons and goals for pursuing classes at ISTC, and possible answers included: to complete a certificate program, to obtain an associate degree, to transfer to a two-year college after release, to transfer to a four-year college after release, to obtain or update job-related skills, for self-improvement or personal enjoyment, and to have an activity to occupy time.

The ISEQ also inquired about the importance of certain factors to students including: becoming successful in a business of one's own, recognition from colleagues and others for one's work, influencing social values, raising a family, being very well off financially, helping others in difficulty, writing original works like novels, creating artistic works, participating in the community, helping promote racial equality, keeping up to date with political affairs, becoming a community leader, and encouraging others to participate in educational programs.

The ISEQ also asked what type of communications students would like to receive from the college following release. Options included employment opportunities, opportunities to mentor other students, and continuing educational opportunities at other colleges. This set of questions utilized a Likert scale.

Background Characteristics

The purpose of the background characteristics section was to ask questions about students' background prior to entering incarceration. Questions addressed students' level of education prior to entering incarceration and enrolling in courses through ISTC. Additionally, data about the educational attainment of each student's mother and father were collected. Demographic questions about sex, racial identity, and age (in ranges) were asked. The section

also asked how many years one's original court-ordered prison sentence was and how many years were left, not considering parole.

Data Collection

Data collection involved the administration of the ISEQ to students enrolled in CTE classes at Main, Draper, and Tutwiler campuses in spring 2020. Following the successful acceptance of the research proposal by the IRB committee, the researcher coordinated the timing of the pilot testing and survey administration with ISTC administrators at Main, Draper, and Tutwiler campuses. The research team was comprised of three members from the University.

As this was the first time the ISEQ was administered, a pilot study was conducted in late January 2020 to test the instrument for reliability and validity. The survey was distributed to two groups of students at the Draper campus. The student participants for the pilot study were recruited by the associate dean at Draper based on the recommendation from the president of ISTC.

The researchers provided the students with brief background information about the work they were doing with ISTC and went over the informed consent document in detail. The students were encouraged to ask questions at any time while they were taking the survey. The researchers asked the participants to keep a copy of the survey to use for reference when they provided feedback to the researchers on the survey design.

The ISEQ was pilot tested with two groups of students at Draper. The students who participated in the first group (n = 12) were student aides, student ambassadors, and student innovators. To qualify as a student ambassador, the student must maintain a 2.5 GPA and be in good standing. The student ambassadors who participated in the pilot study were graduates of at least one program at Draper; they were also the highest achieving students who provided tours of

campus and helped recruit new students. Student aides at the Draper campus were not currently enrolled students but had already completed a CTE program and worked with administrators and instructors in different capacities. Some of the students served as an assistant in the classrooms, helping the instructors work with students to understand and practice the relevant trades. Other student aides maintained the grounds or assisted administrators with campus tasks. The student innovators, an honor given by ISTC for good behavior, also participated.

The researchers distributed the survey to the students in a classroom, and they were encouraged to ask questions while they completed the survey. Researchers initially estimated it would take students 15 minutes to complete the survey. Some students finished within ten minutes, while others took 20 minutes to complete the questionnaire. After the students completed the survey, the researchers asked the group to share which questions were unclear or if any other topics should be incorporated in the survey. After spending 30 minutes speaking with the students about the survey, the researchers learned that questions related to prison sentence length needed to be revisited to clarify whether parole was included in the numbers. Additionally, one of the questions regarding time spent on homework needed to be eliminated, as students did not have access to course materials in the correctional facility which prevented them from working on homework. All materials had to be left at Draper at the end of the school day. The group provided the opportunity for the researchers to add questions about the student organizations they might be members of, as well as how the course work had contributed to the students' knowledge, skills, and personal development. The students also suggested adding a question about student organization memberships like ambassadors, PTK honor society, and others. Overall, the students expressed their appreciation that their opinions mattered, and thought the work the researchers were doing was important.

The second group of students (n = 6) were also recruited by the associate dean to participate. These participants were currently enrolled students who were in a class session next door to where the researchers were located. The researchers again encouraged the group to ask questions if they needed clarification while taking the survey. Again, the researchers learned that the questions related to sentence length and time to release needed to be revisited. The time to complete the survey was longer for this group of students. The researchers learned this approach took more time to complete; thus, the researchers changed the format to checking or marking a box instead of filling in circles.

Following the pilot testing, the researcher coordinated with an administrator at Draper to recruit student participants to participate in the ISEQ. Students were recruited the day of survey administration. The college administrator coordinated with individual instructors to bring students to the researcher and co-researcher, who were based in different classrooms. Only one class at a time was in each room taking the survey. At Draper campus, the college administrator insisted that the class instructor remain in the room where the female researcher was administering the survey. The male co-researcher did not have the same security procedures in place, as students were allowed to stay in the room with the researcher without the instructor; however, a guard was stationed outside the room in the hallway.

All students who were in a CTE class the day the researchers were on campus were given the opportunity to participate. The researchers explained the study and the informed consent form, emphasizing to the participants that the study was completely voluntary. Students were told they could skip any questions they did not want to answer and could stop taking the survey at any point. The researchers explained that the survey was anonymous, and that if individuals elected to complete the survey, the researchers would place the paper in one envelope. Students

were encouraged to ask questions at any time. On the first visit to Draper, the researchers had seven classes participate. Two classes were not meeting that day due to instructor absence.

The researchers then visited Tutwiler on the same day and again were located in two separate classrooms. Students enrolled in all five CTE programs there were asked to participate in the survey. Security personnel did not stay in the classrooms with the researchers. Again, only one class was in the room with the researcher at a time. At approximately ten minutes into the first survey administration, a bell sounded which required the students to return to the Tutwiler facility, as they needed to conduct another headcount. Students returned around 20 minutes later and completed the surveys they originally left with the researcher.

The researchers visited Draper on another day to collect surveys from one of the classes not present the first day. Both researchers were in the room together with classes that arrived at separate times. Following this, the researchers went to Main campus. Students were recruited in the same way, as the campus administrator brought classes, one at a time, to the classrooms where the researchers were located. Two classes were absent this day, but the researchers met with seven classes.

The following week, the researchers returned once more to Draper meet with the remaining class that was previously absent, and then returned to Main Campus to meet with the two classes not present during the first visit.

Reliability and Validity

According to Creswell (2018), the reliability of a survey instrument is determined by its "consistency or repeatability" (p. 154). Reliability stems from the instrument's internal consistency. As Creswell (2018) noted, it is defined by the "degree to which sets of items on an instrument behave the same way" (p. 154). This study was the first time the ISEQ was

administered. The ISEQ was adapted from the CCSSE survey, with questions modified to account for the different environmental conditions of education in a prison setting. CCSSE was created to meet a need for assessing community college student engagement, as the tools used at four-year institutions were insufficient. Since 2001, CCSSE has measured student behavioral traits as well as classroom experiences, experiences with institutional services, and extracurricular activities in order to provide data on student engagement.

The pilot testing of the survey instrument with former and current students at ISTC allowed the researchers to assess the construction of and terminology incorporated in the ISEQ. Based on student feedback and researcher observations, several changes were made between the pilot test and the data collection at the campuses. The changes included removing questions about study time, adding a question about membership in organizations associated with ISTC, and clarifying terminology associated with prison sentence length and years left to serve. The method of answering the survey was also modified from completing circles to checking a box for the response method.

The face validity of the survey instrument was assessed by experts Dr. Frankie Santos Laanan and Dr. E. Michael Bohlig, who validated the structure of the ISEQ and the content. Creswell (2018) described validity in quantitative research as the ability to "draw a meaningful and useful inference from scores on the instruments" (p. 153). To test the validity of the instrument, internal consistency reliability was conducted. A principal component analysis (PCA) was completed to identify the multidimensional constructs of the instrument and reduce the data for statistical analysis. The reliability coefficients and construct variables are displayed in Table 3. Chapter four describes the results of the PCA, which support the validity of the ISEQ.

Table 3

Component Loadings and Reliability Coefficients of ISEQ Construct Variables

| Factor name | Factor loadings |
|--|--------------------|
| Academic engagement | 82 |
| Academic challenge construct $\alpha = .877$ | |
| During the current school year, how much has your coursework emphasized the | |
| mental activity of: | |
| applying theories or concepts to practical problems in new situations? | .869 |
| analyzing the basic elements of an idea, experience, or theory? | .836 |
| forming a new idea or understanding from various pieces of information? | .831 |
| memorizing facts, ideas, or methods from your courses and readings so you repeat them in pretty much the same form? | .793 |
| making judgments about the value or soundness of information, arguments, or methods? | .770 |
| Knowledge and skill development construct $\alpha = .854$ | |
| How much has your experience at ISTC contributed to your knowledge, skills, and | |
| personal development in the area of: | 860 |
| speaking clearly and effectively? | .000 |
| writing clearly and effectively? | .833 |
| analyzing numerical and statistical information? | .815 |
| solving complex real-world problems? | .763 |
| acquiring job- or work- related knowledge and skills? | .709 |
| Instructor engagement | |
| Student engagement with instructors construct $\alpha = .795$ | |
| During your time in classes at ISTC, how often have you: | 7(0) |
| received feedback from your instructors about your grades or assignments? | ./62 |
| talked about your career plans with your instructor or an advisor? | .802 |
| talked to your instructor about your grade? | .645 |
| discussed ideas with instructors? | .757 |
| Instructor validation construct $\alpha = .832$ | |
| Since entering college at ISTC, how often have you felt that: | |
| instructors have provided you with feedback in order to improve in classes? | .867 |
| your contributions are valued in class? | .808 |
| instructors have encouraged you to ask questions and participate? | .802 |
| courses inspired you to think in a new way? | .747 |
| (cc | ontinued) |

Table 3 (continued)

| Factor name | Factor |
|--|----------|
| | loadings |
| Overall support construct $\alpha = .715$ | |
| How supportive are: | |
| college administrators of your academic success? | .884 |
| student support services staff of your academic success? | .878 |
| instructors of your academic success? | .835 |
| other students of your academic success? | .736 |
| Social and community goals construct $\alpha = .642$ | |
| Importance of: | |
| promoting racial equality | .728 |
| participating in community | .716 |
| encouraging others in education | .655 |

Variables in the Study

Astin and antonio's (2012) IEO model was the framework for exploring if background characteristics and academic engagement predicted students' overall satisfaction at this college and if students' perception of courses inspiring them to think in new ways.

Dependent Variables

This study utilized overall satisfaction and students' perception of courses inspiring them to think in new ways as the two dependent variables utilized for inferential statistics. The rating scales for the two items are presented in Table 4.

Table 4

Dependent Variables

| Variable | Coding |
|-------------------------------|---|
| Overall satisfaction | 1 = Poor 2 = Fair 3 = Good 4 = Excellent |
| Inspired to think in new ways | 1 = Never 2 = Sometimes 3 = Often 4 = Very often |

Independent Variables

The independent variables represent the I and E of Astin and antonio's (2012) IEO model. These variables were organized in four sections of questions. The first section, inputs or background characteristics, included age, sex, race (White, non-White), highest level of education prior to entering ISTC, and years left in sentence not counting parole. The second section focused on program engagement, including the following prompts: I am currently pursuing this program because the skills will lead to good wages, and I am currently pursuing this program because I always dreamed of doing something in this field. The third section, also environmentally focused, measured academic engagement, which included academic challenge construct, knowledge and skill, student and instructor engagement construct, instructor validation construct, overall support construct, instructors gave feedback, contributions are valued in class, and encouraged to ask questions. These variables are represented in table 5.
Independent Variables

| Category/variable | Coding/scale |
|--|--|
| Block 1: Background characteristics | 0 M-1- |
| Sex | 0 = Male 1 = Female |
| Age | 1 = 18-19 2 = 20-21 3 = 22-24 4 = 25-29 5 = 30-34 6 = 35-40 7 = 41-49 8 = 50 9 = 65 or older |
| Racial identity | 0 = White 1 = Non-White |
| Highest level of education prior to entering ISTC | 7-point scale 0 = None 1 = High school diploma/ GED 2 = Some college/no degree 3= Vocational/technical certificate 4 = Associate degree 5 = Bachelor's degree 6 = Master's degree 7 = Doctorate degree |
| Years left in sentence, not counting parole | 4-point scale 1 = 0-2 years 2 = 3-5 years 3 = 6-8 years 4 = 9-10 years 5 = 11 or more years |

(continued)

Category/variable

4-point Likert scale 1 = Disagree strongly

2 = Disagree somewhat

3 = Agree somewhat 4 = Agree strongly

Block 2: Program engagement

Reason for pursuing program The skills I learn will lead to good wages I always dreamed of doing something in this field

Block 3: Academic engagement

| Academic challenge construct During the current school year, how much has your coursework emphasized the mental activity of: applying theories or concepts to practical problems in new situations. analyzing the basic elements of an idea, experience, or theory. forming a new idea or understanding from various pieces of information. memorizing facts, ideas, or methods from your courses and readings so you repeat them in pretty much the same form. making judgments about the value or soundness of information. | 4-point Likert scale 1 = Never 2 = Sometimes 3 = Often 4 = Very often |
|---|---|
| Knowledge and skill development construct How much has your experience at ISTC contributed to your knowledge, skills, and personal development in the area of: speaking clearly and effectively. writing clearly and effectively. analyzing numerical and statistical information. solving complex real-world problems. acquiring job- or work- related knowledge and skills. | 4-point Likert scale 1 = Very little 2 = Some 3 = Quite a bit 4 = Very much |
| Block 4: Academic engagement | |
| Student and instructor interaction construct During your time in classes at ISTC, how often have you: received feedback from your instructors about your grades or assignments. talked about your career plans with your instructor or an advisor. talked to your instructor about your grade. | 4-point Likert scale 1 = Never 2 = Sometimes 3 = Often 4 = Very often |

discussed ideas with instructors.

(continued)

| Category/variable | Coding/scale | | |
|---|--------------------------|--|--|
| | | | |
| Instructor validation construct | 4-point Likert scale | | |
| Since entering college at ISTC, how often have you felt that: | 1 = Never | | |
| instructors have provided you with feedback in order to | 2 = Sometimes | | |
| improve in classes. | 3 = Often | | |
| you contributions are valued in class. | 4 = Very often | | |
| instructors have encouraged you to ask questions and | • | | |
| participate. | | | |
| courses inspired you to think in a new way. | | | |
| | | | |
| Overall support construct | 4-point Likert scale | | |
| How supportive are: | 1 = Not Very | | |
| college administrators of your academic success. | 2 = Somewhat | | |
| student support services staff of your academic success. | 3 = Quite a bit | | |
| instructors of your academic success. | 4 = Extremely Supportive | | |
| other students of your academic success. | • • • • | | |
| · | 4-point Likert scale | | |
| Frequency students felt: | 1 = Never | | |
| Instructors provided feedback to improve in class. | 2 = Sometimes | | |
| Contributions are valued in class. | 3 = Often | | |
| Instructors encourage asking questions and participating. | 4 = Very often | | |

Background characteristics

Age, sex, race (White, non-White), highest level of education prior to entering ISTC, and

years left in sentence, not counting parole were included as the background characteristics for the

analysis employing inferential statistics. These questions were at the end of the survey

instrument. Students self-reported these characteristics.

Age. Students were given ranges to select from on the survey. The responses were coded

as: 18–19 (coded = 1), 20–21 (coded = 2), 22–24 (coded = 3), 25–29 (coded = 4), 30–34 (coded

= 5), 35–40 (coded = 6), 41–49 (coded = 7), 50–64 (coded = 8), and 65 or older (coded = 9).

Sex. Sex was recoded into a dichotomous variable with male (coded = 0) and female (coded = 1).

Race. The following represent the coding structure of the race/ethnicity variable:

American Indian or Native American (coded = 1); Asian, Asian American or Pacific Islander (coded = 2); Native Hawaiian (coded = 3); Black or African American, non-Hispanic (coded = 4); White, non-Hispanic (coded = 5); Hispanic, Latino, Spanish (coded = 6); and other (coded = 7). The two largest races represented were White, Non-Hispanic and Black or African American, non-Hispanic. For the purposes of utilizing the variable in inferential statistics, the variables White (coded = 0) and non-White (coded = 1) were created.

Highest level of education. The highest level of education prior to entering ISTC was coded as follows: none (coded = 0), high school diploma (coded = 1), GED (coded = 2), some college/no degree (coded = 3), vocational/technical certificate (coded = 4), associate degree (coded = 5), bachelor's degree (coded = 6), and master's degree (coded = 7). High school diploma and GED were recoded into one variable to create the following coding structure: none (coded = 0), high school diploma or GED (coded = 1), some college/no degree (coded = 2), vocational/technical certificate (coded = 3), associate degree (coded = 4), bachelor's degree (coded = 5), and master's degree (coded = 6).

Years left in sentence. 0-2 years (coded = 1), 3-5 years (coded = 2), 6-8 years (coded = 3), 9-10 years (coded = 4), and 11 or more (coded = 5).

Program Engagement

Two questions related to reasons for pursing programs were incorporated with the same coding: disagree strongly (coded = 1), disagree somewhat (coded = 2), agree somewhat (coded = 3), and agree strongly (coded = 4).

Academic Engagement

Several constructs were utilized for academic engagement. Academic challenge, student and instructor interaction, instructor validation, and frequency students felt about specific factors since entering ISTC utilized a Likert scale with never (coded = 1), sometimes (coded = 2), often (coded = 3), and very often (coded = 4). Knowledge and skill development used a Likert scale with very little (coded = 1), some (coded = 2), quite a bit (coded = 3), and very much (coded = 4). Overall support was measured by not very (coded = 1), somewhat (coded = 2), quite a bit (coded = 3), and extremely supportive (coded = 4).

Data Analysis

The researcher coded and manually input the survey data into The Statistical Package for Social Sciences (SPSS 26) software for data analysis. Descriptive statistics were used to provide an understanding of the background characteristics of the incarcerated students including age, sex, racial identity, educational attainment by students and parents, prison sentence, and years left in sentence. Descriptive statistics allowed the researcher to answer research question one including background characteristics and responses to survey questions relating to program engagement, academic engagement, reasons and goals, and personal importance of incarcerated students enrolled in postsecondary CTE programs. Frequencies and percentages were reported. Inferential statistics were utilized to answer the remaining research questions. Analysis of variance (ANOVA) and hierarchical multiple regression were conducted to answer research questions six and seven. Figure 2 represents the hypothetical conceptual framework utilized for the hierarchical multiple regressions. Table 6 displays the research questions and statistical tests conducted.

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Descriptive Statistics

Research Question One

Descriptive statistics were utilized to answer research question one: What are the background characteristics, program engagement, academic engagement, reasons and goals, and personal importance of incarcerated students enrolled in postsecondary (CTE) programs at ISTC? Background characteristics including age, sex, race, highest level of education of student prior to entering ISTC, mother's and father's highest level of education, original court ordered prison sentence, and years left in sentence not counting parole were reported using frequencies and percentages by the total sample and by campus location. The other questions in the program engagement, academic engagement, and aspirations sections were also presented by campus utilizing frequencies and percentages. The purpose of this question was to learn more about the students who were engaging in CTE courses and explore the frequency of responses by students utilizing the ISEQ.

Inferential Statistics

Research Question Two

Inferential statistics were utilized to answer research question two: To what extent is there a statistically significant difference in academic challenge by campus? A one-way analysis of variance (ANOVA) test was utilized to explore the difference in means among Draper, Main, and Tutwiler campuses for the construct academic challenge. Inferential statistics were utilized, as they were helpful for describing generalizations about a population (Alreck & Settle, 1985).

Research Question Three

An ANOVA test was utilized to answer research question three: To what extent is there a statistically significant difference in knowledge and skill development by campus? The test described mean differences among campuses for knowledge and skill development.

Research Question Four

An ANOVA test was utilized to answer research question four: To what extent is there a statistically significant difference in instructor validation by campus? The test described mean differences among campuses (Draper, Main, and Tutwiler) for the instructor validation construct.

Research Question Five

An ANOVA test was used to answer research question five: To what extent is there a statistically significant difference in student engagement with instructors by campus? The test described mean differences among campuses (Draper, Main, and Tutwiler) on the student engagement with instructors construct.

Research Question Six

A hierarchical multiple regression was conducted to answer research question six: What are the background characteristics, academic engagement, and instructor engagement that predict students' overall satisfaction at this college?

Research Question Seven

Another hierarchical multiple regression was utilized to answer research question seven: What are the background characteristics, academic engagement, and instructor engagement that predict students' perception of courses inspiring them to think in new ways?

To answer questions six and seven, a hierarchical multiple regression was employed in order to allow variables to be added in different blocks to determine what would predict the value of the dependent variables overall student satisfaction and students' perception of courses inspiring them to think in new ways. The following equation was used for the hierarchical multiple regression.

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + \ldots + b_k X_k$$

The independent variables were entered into a model in a sequential (block) fashion. This approach allowed for entering variables that are "casually prior" into the model (Tabachnick & Fidell, 2007). This provides for each independent variable to be assessed when it is included in the model. The entry of the independent variables into the blocks is illustrated in Figure 2. The sequential entry of the independent variable started with block one with student background characteristics. Block two encompassed academic engagement. For research question six this was representative of students pursuing the program because the skills they learn will lead to good wages. For question six, block two was students always dreamed of doing something in the field. Block three added academic challenge and knowledge and skill development for both research question six and research question seven. For research question six, student and instructor engagement, instructor validation, and overall support were added to block four. For research question 7, student and instructor engagement, student felt instructor gave feedback, student felt contributions were valued in class, and student felt encouraged to ask questions in class were added the block four.

To test for multicollinearity, independent variables in the correlation matrix were assessed and no values of r were above .7. The variance inflation factor and tolerance statistic also indicated there was no multicollinearity. The independence of residuals was assessed by the Durbin Watson score. Outliers were present.

Research Questions, Variables, and Methods of Analysis

| Research question | Independent variable(s) | Dependent variable | Test(s) |
|--|---|------------------------------------|--|
| 1. What are the background characteristics of incarcerated students | -Background characteristics | | Frequency, |
| enrolled in postsecondary career and technical education (CTE) programs at ISTC? | -Academic engagement | | percent |
| 2. To what extent is there a statistically significant difference in academic challenge by campus? | Campus location | Academic challenge | ANOVA |
| 3.To what extent is there a statistically significant difference in knowledge and skill development by campus? | Campus location | Knowledge and skill development | ANOVA |
| 4. To what extent is there a statistically significant difference in instructor validation by campus? | Campus location | Instructor validation | ANOVA |
| 5. To what extent is there a statistically significant difference in student engagement with instructors by campus? | Campus location | Student engagement with instructor | ANOVA |
| 6. What are the background characteristics, academic engagement, and instructor engagement that predict students' overall satisfaction at this college? | Background characteristics Reason for pursuing program Academic challenge Knowledge and skill development Faculty validation Overall support | Rate experience at ISTC | Hierarchical multiple regression |
| 7. What are the background characteristics, academic engagement, and instructor engagement that predict students' perception of courses inspiring them to think in new ways? | -Background characteristics -Reason for pursuing program -Academic challenge -Knowledge and skill development -Student and instructor engagement -Instructors gave feedback -Contributions were valued in class -Encouraged to ask questions | Inspired to think in new ways | Hierarchical multiple regression |

Figure 2. Predictive Model



Environment

Ethical Considerations

This study involved working with a vulnerable population as defined by The University of Alabama Institutional Review Board (IRB). The risk to the participants was minimal and was reflected accordingly in the IRB proposal. The president of ISTC as well as the Commissioner for the Alabama Department of Corrections demonstrated support for the study. The research proposal required a full IRB Board review. The board received the research proposal in early October 2019 and gave final approval in January 2020 (see Appendix A).

No personal identifying information was collected during the survey. All responses were anonymous, and participants were given assurance that the responses would in no way impact their sentence. The researchers explained that the participants would face no repercussions if they elected to take or opt out of the survey as participation was completely voluntary. The participants were assured that the surveys would be maintained in a secure fashion. The IRB Board issued a waiver of written consent requirements (see Appendix B).

Delimitations

The study was delimited to students enrolled in classes at one of the three campuses and included adult students enrolled in short- and/or long-term certificate programs in career and technical education (CTE). The study was delimited to students who were at campus on the day of the survey administration.

Limitations

One limitation of the study was the sample size. The sample size was N = 226, or 58% of students enrolled in CTE programs at the three campuses. Thus, the findings were limited based on this population.

Despite the pilot testing of the survey instrument and assessing the face value by other scholars, this was the first time the survey was administered to an incarcerated student population. The population was limited to three campus sites within one technical college, thus limiting generalizations for a broader population. As part of the pilot testing, the researchers were limited to work with students on the Draper campus which was not representative of the students at all three campuses. While efforts were made to pilot test the survey with students who previously graduated from one of the programs in an effort to prevent participants in the pilot study from also participating in the actual administration of the survey at the three campuses, it was possible that fewer than ten students may have also participated in the larger study.

Another limitation of this study was the ability of the respondents to provide truthful answers on the questionnaire. The students were recruited to participate in the study by administration on the campuses. Incarcerated students could fear retribution for answers that could be construed to be less than positive or think the answers given could in some way hinder future attendance of classes. While all students were told several times the answers were anonymous, there was a possibility they remained apprehensive about expressing their true opinions. The responses were also self-reported. The study was conducted with the consent from ADOC and ISTC. The researchers relied on the assistance of ISTC to recruit students for the survey. At times, an instructor remained in the room while the students completed the survey, thus potentially causing students to not respond truthfully.

On two separate occasions, the students were interrupted while completing the survey to report for a headcount. On the Tutwiler campus, the break was approximately half an hour in length. Students were given the opportunity to return to the same room to finish the survey. At Main campus, students were interrupted for a headcount and lunch earlier than usual. Students

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were also given the opportunity to return to complete their survey. A number of students did not return to complete the survey, but the partially completed ones were included in the analysis. The survey was cross-sectional and taken at one time.

The informed consent form along with the survey instrument met the requirements for an eighth grade reading level. The researcher observed that some students had difficulty with understanding some of the language in the survey instrument.

Due to the differences in sample sizes on the three campuses, no comparisons were made by sex. The sample sizes were unequally distributed with more males than females. Due to the small sample size and students not completing all questions on the survey, the regression models utilized did not consider all students. Additionally, outliers remained in the statistical analysis that could have impacted the regression models.

Summary

A survey design was selected for the exploratory study to examine incarcerated student engagement based on CCSSE. This research design was selected as it also allowed for a larger number of students to participate in the study (Creswell & Creswell, 2018). The surveys were distributed at three sites of ISTC: Main Campus, Draper Campus, and Tutwiler Campus.

The ISEQ was described along with the independent and dependent variables used for the statistical analysis. The reliability and validity of the instrument were examined. The PCA was described along with the statistical analysis conducted to answer the research questions.

The following chapter presents the findings from the statistical analysis employed for the study.

CHAPTER IV:

RESULTS

Overview

This chapter provides the results of the statistical analysis conducted for this study. The chapter is organized by the results that correspond with the research question. The first section of the chapter examines the responses of participants to questions regarding background characteristics, program engagement, academic engagement, reasons and goals, and factors of personal importance. Frequencies and descriptive statistics were utilized to present the data. The data are represented by the number of respondents (*n*) and within campus percent. Totals and subtotals are included in the tables. The means and standard deviations of the results are found in Appendix E. This section is representative of Astin and antonio's (2012) IEO model representing both inputs and environmental factors.

The second section utilizes analysis of variance (ANOVA) to compare difference of means among campuses. The construct academic challenge is utilized. This is an environmental factor of Astin and antonio's (2012) IEO model.

The third section utilizes analysis of variance (ANOVA) to compare difference of means between campuses for the construct knowledge and skill development. This is an environmental factor of Astin and antonio's (2012) IEO model. Section four also utilizes ANOVA to compare means of student interactions with instructors between campuses. This represents another aspect of the environment from Astin and antonio's (2012) IEO model.

Section five employs ANOVA to compare means of student engagement with instructors by campus. Like the previous sections, this represents another aspect of the environment from Astin and antonio's (2012) IEO model.

The sixth section predicts student satisfaction by analyzing several variables through hierarchical multiple regression. This analysis incorporates the inputs and environment to predict the dependent variable using the predictive model (Figure 2). The dependent variable utilized in the statistical analysis is student overall satisfaction with their educational experience at ISTC.

Section seven also utilized hierarchical multiple regression to predict students' perception of being inspired to think in new ways. Again, the predictive model was utilized (Figure 2). The dependent variable for this analysis is students' perception of being inspired to think in new ways since entering college at ISTC.

Background Characteristics

Research question one asked, what are the background characteristics, program engagement, reasons and goals, and factors of personal importance to incarcerated students enrolled in CTE programs at ISTC? Several questions on the Incarcerated Student Engagement Questionnaire (ISEQ) inquired about students' background characteristics.

The sample size for the study was 226. Frequencies were conducted to determine the frequencies of the responses. Table 7 provides an overview of the background characteristics of all participants. Non-responses varied per question as indicated by the varying total number of respondents for sex, age range, race/ethnicity, original prison sentence, years left in sentence,

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student's highest level of education, mother's highest level of education, and father's highest level of education.

For the question requesting students' sex, there were 214 responses. Of the respondents, 22% (n = 47) self-identified as women while 78% (n = 167) identified as men. Students were given age ranges to select from on the ISEQ, and 212 (n = 212) participants responded. The responses ranged from ages 18 to 65 or older. Students between 18 and 29 accounted for 23.1% (n = 49) of the sample. The largest percentage of students, 40% (n = 85) were between ages 30 and 40. Students age 41 and older accounted for 36.7% (n = 78) of the sample.

Table 7 also reflects the students' self-reported original prison sentence and years left to serve. Just over 60% (n = 127) of respondents answered they were originally sentenced to 11 or more years in prison. Half of the respondents, 50% (n = 102), identified as having zero to two years left of their sentence. Respondents who identified as having 11 or more years left to serve comprised 22.5% (n = 46) of the students surveyed.

| Variable | n | % |
|--------------------------|-----|------|
| Gender | | |
| Women | 47 | 22 |
| Men | 167 | 78 |
| Age range | | |
| 18 to 19 | * | * |
| 20 to 21 | 9 | 4.2 |
| 22 to 24 | 11 | 5.2 |
| 25 to 29 | 28 | 13.2 |
| 30 to 34 | 36 | 17 |
| 35 to 40 | 49 | 23 |
| 41 to 49 | 38 | 17.9 |
| 50 to 64 | 34 | 16 |
| 65 or older | 6 | 2.8 |
| Original prison sentence | | |
| 0 to 5 years | 50 | 23.8 |
| 6 to 10 years | 33 | 15.7 |
| 11 to 20 years | 60 | 28.6 |
| 21 or more years | 67 | 31.9 |
| Total | 210 | 100 |
| Years left in sentence | | |
| 0 to 2 years | 102 | 50 |
| 3 to 5 years | 33 | 16.2 |
| 6 to 8 years | 16 | 7.8 |
| 9 to 10 years | 7 | 3.4 |
| 11 or more years | 46 | 22.5 |
| Total | 204 | 100 |

Background Characteristics of All Participants (N = 226)

Race/Ethnicity of All Students

The following table represents another category in the background information collected through the ISEQ. The question on the survey instrument asked students to mark all that apply when self-identifying one's race or ethnicity. The numbers in Table 8 reflect students who selected one or more categories. Students were counted in each category they selected. Over 88% of the students self-reported in the two categories of white and non-Hispanic (n = 97 or 45.5%) or black, African American and non-Hispanic (n = 91 or 42.7%). No other ethnic group exceeded 10% of the sample. Cells with fewer than five responses were suppressed to maintain student anonymity.

Table 8

| Variable | п | % |
|---|-----|------|
| Race/ethnicity | | |
| American Indian or Native American | 11 | 5.2 |
| Asian | * | * |
| Black or African American, non-Hispanic | 91 | 42.7 |
| Hispanic or Latino | * | * |
| Native Hawaiian | * | * |
| Pacific Islander | * | * |
| White, non-Hispanic | 97 | 45.5 |
| Other | 8 | 3.8 |
| Prefer not to respond | * | * |
| Total | 213 | 100 |

Race/Ethnicity Background Characteristics of All Participants

Education Characteristics of All Students

Table 9 displays the self-reported education levels of the student, student's mother, and student's father. The questions in the survey asked students to mark the highest level of education attained. If a student marked more than one category, the researcher coded the response to coincide with the highest level of education for the student and parents. Students with less than a high school diploma or a GED accounted for 20.2% (n = 43) of the sample. Students whose highest level of education was equivalent to a high school diploma or GED were 49.3% (n = 105) of the sample. Students who reported some college with no degree composed 16.4% of the sample. Less than 10% of the students reported attaining an education level higher than some college.

Education levels were very similar for mothers and fathers. According to the survey, 47.8% of students reported that their mother's highest education level was either a high school diploma or GED, and 41% of students reported that their father's highest level of education was either a high school diploma or GED. When reporting parents' education levels, 12.1% and 18.8% of students chose the answer of unknown for their mothers and fathers, respectively.

Educational Background Characteristics of All Students

| Variable | n | % |
|----------------------------------|-----|------|
| Education highest level | | |
| None | 43 | 20.2 |
| High school diploma | 50 | 23.5 |
| GED | 55 | 25.8 |
| Some college with no degree | 35 | 16.4 |
| Vocational/technical certificate | 18 | 8.5 |
| Associate degree | * | * |
| Bachelor's degree | 7 | 3.3 |
| Master's degree | * | * |
| Doctorate degree | * | * |
| Total | 213 | 100 |
| Education mother highest level | | |
| None | 16 | 7.7 |
| High school diploma | 80 | 38.6 |
| GED | 19 | 9.2 |
| Some college with no degree | 15 | 7.2 |
| Vocational/technical certificate | * | * |
| Associate degree | 25 | 12.1 |
| Bachelor's degree | 13 | 6.3 |
| Master's degree | 7 | 3.4 |
| Doctorate degree | * | * |
| Unknown | 25 | 12.1 |
| Total | 207 | 100 |
| Education father highest level | | |
| None | 32 | 15.5 |
| High school diploma | 69 | 33.3 |
| GED | 16 | 7.7 |
| Some college with no degree | 11 | 5.3 |
| Vocational/technical certificate | 10 | 4.8 |
| Associate degree | 11 | 5.3 |
| Bachelor's degree | 7 | 3.4 |
| Master's degree | 10 | 4.8 |
| Doctorate degree | * | * |
| Unknown | 39 | 18.8 |
| Total | 207 | 100 |

Student Characteristics by Campus

Table 10 presents students' demographic characteristics by campus location. The three campuses utilized to collect survey data were Draper, Main, and Tutwiler. Frequencies were conducted to ascertain the frequency of the demographic categories listed in the table by campus. Main campus had the most student participants (n = 98). Of the three campuses, male participants received instruction at Draper and Main, while Tutwiler campus was the instructional site with female students. The survey instrument utilized terminology gender as opposed to sex. In the state penal system, individuals are classified by binary sex of male or female.

Race/Ethnicity by Campus

When viewing the race/ethnicity category of the survey by campus instead of by the entire sample, the percentages of the majority of racial/ethnic categories varies. At Draper and Main campuses, the majority of students self-reported race as Black or African American, non-Hispanic, while the majority of students at Tutwiler responded as White, non-Hispanic.

Education by Campus

Across all three campuses, 49.3% (n = 105) of respondents reported their highest level of education prior to entering a program at ISTC as completing a high school diploma or a GED. Students who self-reported having their highest level of education above high school accounted for 30.5% of the respondents. Those reporting none as their highest level of education made up 20.2% of respondents, with the larger portion of these students from Draper campus.

Prison Time

On the Draper campus, 36.7% of students self-reported less than 10 years as the original court-ordered prison sentence. On Main campus, 29.9% of the students reported an original

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sentence of 10 years or less. At Tutwiler, 64.5% of survey participants were originally sentenced to 10 years or less. At Draper campus, 33.8% of respondents were originally sentenced to 21 or more years of prison, while on Main campus 39.2% of respondents composed this category.

The percentages for each answer were similar across all three campuses who selfreported the number of years left in their sentence was similar. Tutwiler's largest group of students self-reported they had zero to two years left in their sentence.

| | Dra | aper | М | Main | | Tutwiler | |
|---------------------------------------|-----|------|----|------|----|----------|--|
| Variable | п | % | п | % | п | % | |
| Sex | | | | | | | |
| Women | * | * | * | * | 46 | 97.9 | |
| Men | 69 | 41.3 | 98 | 58.7 | * | * | |
| Race/ethnicity | | | | | | | |
| American Indian or Native American | 6 | 8.6 | * | * | * | * | |
| Asian | * | * | * | * | * | * | |
| Black or African American, non- | 36 | 51.4 | 46 | 46.5 | 9 | 19.6 | |
| Hispanic | | | | | | | |
| Hispanic or Latino | * | * | * | * | * | * | |
| Native Hawaiian | * | * | * | * | * | * | |
| Pacific Islander (non-native Hawaiian | * | * | * | * | * | * | |
| White, non-Hispanic | 21 | 30 | 41 | 41.4 | 35 | 76.1 | |
| Other | * | * | * | * | * | * | |
| Prefer not to respond | * | * | * | * | * | * | |
| Education highest level | | | | | | | |
| None | 22 | 31.9 | 14 | 14.3 | 7 | 15.2 | |
| High school diploma | 18 | 26.1 | 24 | 24.5 | 8 | 17.4 | |
| GED | 17 | 24.6 | 27 | 27.6 | 11 | 23.9 | |
| Some college with no degree | 7 | 10.1 | 15 | 15.3 | 13 | 28.3 | |
| Vocational/technical certificate | * | * | 13 | 13.3 | * | * | |
| Associate degree | * | * | * | * | * | * | |
| Bachelor's degree | * | * | * | * | * | * | |
| Master's degree | * | * | * | * | * | * | |
| Doctorate degree | * | * | * | * | * | * | |
| Education mother highest level | | | | | | | |
| None | 6 | 9.1 | * | * | * | * | |
| High school diploma | 30 | 45.5 | 39 | 41.1 | 11 | 23.9 | |
| GED | * | * | 8 | 8.4 | 7 | 15.2 | |
| Some college with no degree | * | * | 7 | 7.4 | * | * | |

Background Characteristics By Campus

(continued)

| | Dra | aper | М | ain | Tut | wiler |
|---|--------------|------------|----------|-----------|------|-------|
| Variable | n | % | n | % | n | % |
| Vocational/technical certificate | * | * | * | * | * | * |
| Associate degree | 9 | 13.6 | 11 | 11.6 | * | * |
| Bachelor's degree | * | * | * | * | * | * |
| Master's degree | * | 8 | 6 | 6.3 | * | * |
| Doctorate degree | * | * | * | * | * | * |
| Unknown | 9 | 13.6 | 10 | 10.5 | 6 | 13 |
| Education father highest level | | | | | | |
| None | 11 | 16.7 | 10 | 10.5 | 11 | 23.9 |
| High school diploma | 19 | 28.8 | 38 | 40 | 12 | 26.1 |
| GED | * | * | 8 | 8.4 | * | * |
| Some college with no degree | * | * | * | * | 7 | 15.2 |
| Vocational/technical certificate | * | * | * | * | * | * |
| Associate degree | * | * | 6 | 6.3 | * | * |
| Bachelor's degree | * | * | * | * | * | * |
| Master's degree | * | * | * | * | * | * |
| Doctorate degree | * | * | * | * | * | * |
| Unknown | 18 | 27.3 | 17 | 17.9 | * | * |
| Original prison sentence | | | | | | |
| 0 to 5 years | 12 | 17.6 | 22 | 22.7 | 16 | 35.6 |
| 6 to 10 years | 13 | 19.1 | 7 | 7.2 | 13 | 28.9 |
| 11 to 20 years | 20 | 29.4 | 30 | 30.9 | 10 | 22.2 |
| 21 or more years | 23 | 33.8 | 38 | 39.2 | 6 | 13.3 |
| Years left in sentence | | | | | | |
| 0 to 2 years | 31 | 46.3 | 41 | 44.6 | 30 | 66.7 |
| 3 to 5 years | 13 | 19.4 | 15 | 16.3 | * | * |
| 6 to 8 years | * | * | 9 | 9.8 | * | * |
| 9 to 10 years | * | * | * | * | * | * |
| 11 or more years | 16 | 23.9 | 24 | 26.1 | 6 | 13.3 |
| Note: Sex is displayed across campus. Oth | ner category | y percenta | ages are | within ca | mpus | |

Table 10 (continued)

Program Engagement

Students at the three campuses are offered different career and technical education programs. Several of the CTE courses are offered at two or more campuses. Based on the survey response, Main campus had the largest number of student responses with 104 students selfidentifying as enrolled in one of 14 programs that are offered at that location. At Draper, 72 students participated in the ISEQ and identified one of 10 programs of study in which they were enrolled. The participants in the study at Tutwiler was the smallest sample of participants, with 48 students self-identifying as enrolled in one of the seven CTE programs offered at the campus.

At Draper, the program of study with the most participants was HVAC with 14 (n = 14). At Main, the largest number of students participated in welding, with 22 respondents enrolled (n = 22). The two programs with the largest number of students at Tutwiler were logistics and supply chain management (n = 13) and office information systems (n = 12).

Automotive body repair, automotive mechanics, and welding are the only three programs offered at all three campuses. These three programs enrolled 31% of the total respondents (n = 71). Of the three programs, welding had the highest participation, with approximately 21% of total respondents participating in the program. While Main had the largest number of students enrolled in welding (n = 22, 21.2%), Tutwiler had a larger percentage of respondents report they were enrolled in welding (n = 14, 29.2%).

At Main and Draper, HVAC accounted for the second largest program enrollment, chosen by 13% (n = 30) of respondents. Industrial systems technology also had one of the largest class enrollments at Main, with 15% of respondents at Main participating in the program. Commercial truck driving and electrical technology were two programs with the lowest enrollment rates among students who participated in the ISEQ. Tutwiler and Draper both offer logistics and

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supply chain management. At Tutwiler, 27% (n = 13) of the respondents were enrolled in this course.

Table 11

Descriptive Statistics of Program of Study by Campus

| | Dra | aper | M | ain | Tut | wiler |
|-------------------------------|-----|------|----|------|-----|-------|
| Variable | п | % | n | % | n | % |
| Automotive mechanics | * | * | 8 | 7.7 | * | * |
| Barbering | * | * | 14 | 13.5 | 0 | 0 |
| Cabinetmaking | 0 | 0 | 7 | 6.7 | 0 | 0 |
| Carpentry | 0 | 0 | 13 | 12.5 | 0 | 0 |
| Cosmetology | 0 | 0 | 0 | 0 | 6 | 12.5 |
| Diesel mechanics | 10 | 13.9 | 0 | 0 | 0 | 0 |
| HVAC | 14 | 19.4 | 16 | 15.4 | 0 | 0 |
| Logistics and supply chain | * | * | 0 | 0 | 13 | 27.1 |
| Masonry | 11 | 15.3 | * | * | 0 | 0 |
| Office information systems | 0 | 0 | 0 | 0 | 12 | 25.0 |
| Industrial systems technology | 0 | 0 | 16 | 15.4 | 0 | 0 |
| Upholstery | 0 | 0 | 12 | 11.5 | 0 | 0 |
| Welding | 12 | 16.7 | 22 | 21.2 | 14 | 29.2 |

Students were also asked if they had changed programs since enrolling in classes at one of the three campuses, and 10 or fewer students at each campus self-reported that they had.

These numbers are reflected by campus in Table 12.

Table 12

Students Who Self-Reported Changing Programs

| | Dr | aper | М | ain | Tut | wiler |
|------------------|----|------|----|------|-----|-------|
| Variable | п | % | n | % | n | % |
| Changed programs | | | | | | |
| No | 63 | 33.0 | 90 | 47.1 | 38 | 19.9 |
| Yes | 8 | 28.6 | 10 | 35.7 | 10 | 35.7 |

Academic Engagement

Academic engagement is assessed by the degree to which students positively respond to the question using Likert type scales. To answer the following questions, frequencies and the custom tables function in SPSS 26 were utilized to determine the frequencies of the levels of agreement. The tables reflect the responses by campus. The respondents are represented in the tables by campus (n and %).

Reason for Pursuing Program

Students were asked why they selected the current program in which they were enrolled. Students had the option to select responses from disagree strongly to agree strongly (See Table 13). The majority of students, 99.5 %, selected the response agree somewhat or agree strongly that they were pursuing the program because it would lead to good wages. Over half of respondents, 59.5%, selected disagree strongly or disagree somewhat that the reason for pursing the program was because other family members worked in the field. More than half of the respondents, 74%, selected agree somewhat or agree strongly that they had dreamed of working in the field. Most respondents (74.5%) selected disagree somewhat or disagree strongly that this program was their only option.

| Frequency of W | hy Students Are | Pursuing Their | Current Program | by Campus |
|----------------|-----------------|----------------|-----------------|-----------|
|----------------|-----------------|----------------|-----------------|-----------|

| | Draper | | Ma | Main | | wiler |
|--------------------------------------|--------|----|----|------|----|-------|
| Variable | n | % | n | % | n | _% |
| The skills I learn will lead to good | | | | | | |
| wages | | | | | | |
| Disagree strongly | 0 | 0 | 0 | 0 | 0 | 0 |
| Disagree somewhat | 0 | 0 | 1 | 1 | 0 | 0 |
| Agree somewhat | 12 | 17 | 19 | 19 | 7 | 16 |
| Agree strongly | 59 | 83 | 79 | 80 | 36 | 84 |
| Other family members work in this | | | | | | |
| field | | | | | | |
| Disagree strongly | 24 | 44 | 31 | 36 | 18 | 43 |
| Disagree somewhat | 7 | 13 | 21 | 24 | 8 | 19 |
| Agree somewhat | 13 | 24 | 16 | 18 | 9 | 21 |
| Agree strongly | 10 | 19 | 19 | 22 | 7 | 17 |
| I always dreamed of doing | | | | | | |
| something in this field | | | | | | |
| Disagree strongly | 6 | 11 | 10 | 11 | 6 | 13 |
| Disagree somewhat | 8 | 14 | 13 | 14 | 7 | 15 |
| Agree somewhat | 20 | 36 | 30 | 33 | 17 | 36 |
| Agree strongly | 22 | 39 | 39 | 42 | 17 | 36 |
| This was my only option as a | | | | | | |
| student | | | | | | |
| Disagree strongly | 34 | 61 | 69 | 79 | 35 | 83 |
| Disagree somewhat | 11 | 20 | 10 | 11 | 2 | 5 |
| Agree somewhat | 6 | 11 | 4 | 5 | 2 | 5 |
| Agree strongly | 5 | 9 | 4 | 5 | 3 | 7 |

Class Interest

Students were asked if they would be interested in taking a variety of classes that are not part of the CTE curriculum. The responses were measured utilizing a four-point Likert scale of agree strongly, agree somewhat, disagree somewhat, and disagree strongly. Table 14 reflects the responses. The ten classes are listed in the table by campus. Among the three campuses, a majority of students expressed interest in pursuing other classes outside of the program for which they studied, as over 50% of students within each campus selected agree somewhat or agree

strongly. In particular, 90% of students across all three campuses selected business management as one of the subjects of greatest interest. At Tutwiler, 91% of respondents selected agree somewhat or agree strongly that they would be interested in computer programming, while 87% of students at Draper selected agree somewhat or agree strongly and 82% of students at Main selected agree somewhat or agree strongly for this subject area. The option of taking art was less appealing to some students, with 30% of respondents selecting disagree somewhat or disagree strongly.

Table 14

| | Draper |
|----------|--------|
| Variable | 10 O/. |

Student Interest in Pursuing Subjects by Campus

| | Draper | | Main | | Tutwiler | |
|-------------------------|--------|----|------|----|----------|----|
| Variable | п | % | n | % | n | % |
| Reading and composition | | | | | | |
| Disagree strongly | 5 | 9 | 14 | 16 | 6 | 14 |
| Disagree somewhat | 6 | 11 | 10 | 11 | 5 | 12 |
| Agree somewhat | 23 | 42 | 21 | 24 | 17 | 40 |
| Agree strongly | 21 | 38 | 44 | 49 | 14 | 33 |
| Art | | | | | | |
| Disagree strongly | 8 | 15 | 21 | 26 | 1 | 2 |
| Disagree somewhat | 9 | 17 | 12 | 15 | 7 | 17 |
| Agree somewhat | 12 | 22 | 21 | 26 | 15 | 36 |
| Agree strongly | 25 | 46 | 28 | 34 | 19 | 45 |
| Finance | | | | | | |
| Disagree strongly | 3 | 5 | 9 | 10 | 3 | 7 |
| Disagree somewhat | 6 | 11 | 3 | 3 | 4 | 10 |
| Agree somewhat | 14 | 25 | 17 | 20 | 13 | 32 |
| Agree strongly | 33 | 59 | 57 | 66 | 21 | 51 |
| Business management | | | | | | |
| Disagree strongly | 3 | 5 | 5 | 5 | 2 | 4 |
| Disagree somewhat | 4 | 7 | 2 | 2 | 3 | 7 |
| Agree somewhat | 11 | 19 | 14 | 15 | 13 | 29 |
| Agree strongly | 40 | 69 | 72 | 77 | 27 | 60 |

(continued)

Draper Main Tutwiler Variable % % % п n n History Disagree strongly Disagree somewhat Agree somewhat Agree strongly Math Disagree strongly Disagree somewhat Agree somewhat Agree strongly Science Disagree strongly Disagree somewhat Agree somewhat Agree strongly Marketing Disagree strongly Disagree somewhat Agree somewhat Agree strongly Computer programming Disagree strongly Disagree somewhat Agree somewhat Agree strongly Foreign language Disagree strongly Disagree somewhat Agree somewhat Agree strongly

Table 14 (continued)

Course Engagement

Students were asked to respond to a series of questions to understand the frequency with which they engaged in the classroom. The stem question "During your time in classes at ISTC, how often do you do the following" was followed by 12 items on a four-point scale with the response options of very often, often, sometimes, and never.

Students selected similar responses to the questions on course engagement. At Draper, 81% of respondents reported that they asked questions in class often or very often, while 82% of students at Main selected often or very often. At Tutwiler, 96% of students selected often or very often for the frequency they asked questions in class. Among the campuses, 34% of students at Draper, 29% of students at Main, and 42% of students at Tutwiler selected often or very often for the frequency of giving class presentations. A majority of respondents reported the frequency of attending class with an incomplete assignment as never at Draper (55%), Main (59%), and Tutwiler (58%).

Students engaged with instructors in the classrooms by discussing grades, careers, receiving feedback, and discussing ideas. Draper and Tutwiler students responded often or very often in all three categories. For discussing grades with instructors, 64% of Draper students and 61% of Tutwiler students responded with often or very often, while 41% of students on Main campus selected often or very often. A majority of respondents on Main campus (68%), Draper (83%), and Tutwiler (73%) selected often or very often for the frequency of receiving feedback from instructors. A higher percentage of students at Draper (77%) selected often or very often for the frequency with which they discussed their career with instructors compared to Main (65%) and Tutwiler (69%). At Tutwiler, 74% of students selected often or very often for the frequency with which they discussed their selected often or very often for the frequency of the frequency of

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of discussing ideas with instructors, while 69% of students at Draper and 70% of students at Main selected the same responses.

The majority of respondents within Draper (58%), Main (60%), and Tutwiler (79%) selected often or very often for the frequency they discussed class with others in the camp where they lived. The last question in this section asked about the frequency students discussed what they learned with guards. At Draper, 22% of students selected the response of often or very often, 30% of students at Main selected often or very often, and 36% of students at Tutwiler selected often/very often. Table 15 represents students' responses.

Table 15

Course Engagement by Campus

| | Draper | | Main | | Tutwiler | |
|---------------------------------|--------|----|------|----|----------|----|
| Variable | п | % | п | % | п | % |
| Asked questions in class | 0 | 0 | 1 | 1 | 0 | 0 |
| Never | 13 | 19 | 17 | 17 | 2 | 4 |
| Sometimes | 29 | 42 | 36 | 35 | 16 | 34 |
| Often | 27 | 39 | 48 | 47 | 29 | 62 |
| Very often | | | | | | |
| Gave presentations | | | | | | |
| Never | 19 | 28 | 26 | 26 | 10 | 21 |
| Sometimes | 26 | 38 | 45 | 45 | 17 | 36 |
| Often | 14 | 21 | 19 | 19 | 11 | 23 |
| Very often | 9 | 13 | 10 | 10 | 9 | 19 |
| Incomplete assignment | | | | | | |
| Never | 35 | 55 | 58 | 59 | 26 | 58 |
| Sometimes | 25 | 39 | 32 | 32 | 13 | 29 |
| Often | 4 | 6 | 3 | 3 | 3 | 7 |
| Very often | 0 | 0 | 6 | 6 | 3 | 7 |
| Discussed grade with instructor | | | | | | |
| Never | 5 | 7 | 20 | 20 | 1 | 2 |
| Sometimes | 20 | 29 | 40 | 40 | 17 | 37 |
| Often | 26 | 38 | 26 | 26 | 11 | 24 |
| Very often | 18 | 26 | 15 | 15 | 17 | 37 |

(continued)

| | <u>Draper</u> | | Main | | Tutwiler | |
|--|---------------|----|------|----|----------|----|
| Variable | n | % | п | % | п | % |
| Discussed career with instructor | | | | | | |
| Never | 1 | 1 | 8 | 8 | 7 | 15 |
| Sometimes | 15 | 21 | 27 | 27 | 8 | 17 |
| Often | 21 | 30 | 38 | 38 | 11 | 23 |
| Very often | 33 | 47 | 27 | 27 | 22 | 46 |
| Received feedback from instructor | | | | | | |
| Never | 2 | 3 | 6 | 6 | 4 | 8 |
| Sometimes | 10 | 15 | 25 | 25 | 9 | 19 |
| Often | 27 | 40 | 34 | 34 | 9 | 19 |
| Very often | 29 | 43 | 34 | 34 | 26 | 54 |
| Worked harder than you thought possible | | | | | | |
| Never | 4 | 6 | 2 | 2 | 0 | 0 |
| Sometimes | 6 | 9 | 21 | 20 | 5 | 11 |
| Often | 28 | 41 | 34 | 33 | 17 | 36 |
| Very often | 31 | 45 | 46 | 45 | 25 | 53 |
| Discussed ideas with instructor | | | | | | |
| Never | 2 | 3 | 7 | 7 | 2 | 4 |
| Sometimes | 19 | 28 | 24 | 24 | 10 | 21 |
| Often | 21 | 30 | 38 | 38 | 10 | 21 |
| Very often | 27 | 39 | 32 | 32 | 25 | 53 |
| Discuss ideas with classmates | | | | | | |
| Never | 3 | 4 | 3 | 3 | 4 | 9 |
| Sometimes | 13 | 19 | 21 | 21 | 7 | 15 |
| Often | 25 | 36 | 32 | 32 | 13 | 28 |
| Very often | 28 | 41 | 45 | 45 | 23 | 49 |
| Discussed beliefs | | | | | | |
| Never | 13 | 19 | 24 | 24 | 11 | 23 |
| Sometimes | 25 | 36 | 42 | 42 | 19 | 40 |
| Often | 20 | 29 | 17 | 17 | 8 | 17 |
| Very often | 11 | 16 | 16 | 16 | 9 | 19 |
| Discussed class with other people in the | | | | | | |
| camp | | | | | | |
| Never | 4 | 6 | 11 | 11 | 0 | 0 |
| Sometimes | 25 | 36 | 29 | 29 | 10 | 21 |
| Often | 20 | 29 | 28 | 28 | 17 | 35 |
| Very often | 20 | 29 | 32 | 32 | 21 | 44 |
| Discussed class with guards | | | | | | |
| Never | 26 | 38 | 45 | 45 | 16 | 34 |
| Sometimes | 27 | 40 | 26 | 26 | 14 | 30 |
| Often | 8 | 12 | 15 | 15 | 8 | 17 |
| Very often | 7 | 10 | 15 | 15 | 9 | 19 |

Table 15 (continued)

The survey question, "during the current school year, how much has your coursework emphasized the following mental activities" was followed by five items. Responses were measured utilizing a four-point Likert scale examining the frequency of engagement, with the options never, sometimes, often, and very often.

Students selected the response often or very often at Draper (68%), Main (87%), and Tutwiler (73%) for the frequency of memorizing facts, ideas, or methods from the coursed in order to be able to repeat them in a similar form. The majority of students at Draper (64%), Main (70%), and Tutwiler (81%) selected the response of often or very often to forming a new idea or understanding from pieces of information.

Students were asked about the frequency with which they learned to apply theories or concepts to practical problems in new situations. The majority of respondents at Draper (62%) and Main (73%) answered often or very often. Approximately 75% of students at Tutwiler responded to the question with often or very often. Table 16 demonstrates students' responses by campus.

| Frequency by Campus | That Coursework | Emphasized Mental | Activities in the Classroom |
|---------------------|-----------------|-------------------|-----------------------------|
|---------------------|-----------------|-------------------|-----------------------------|

| | Draper | | Main | | Tutwiler | |
|--|--------|----|------|----|----------|----|
| Variable | n | % | n | % | п | % |
| Memorizing facts, ideas, or methods from | | | | | | |
| your courses and readings so you can | | | | | | |
| repeat them in pretty much the same form | | | | | | |
| Never | 0 | 0 | 4 | 4 | 3 | 6 |
| Sometimes | 15 | 21 | 23 | 23 | 5 | 11 |
| Often | 31 | 44 | 33 | 33 | 13 | 28 |
| Very often | 25 | 35 | 40 | 40 | 26 | 55 |
| Analyzing the basic elements of an idea, | | | | | | |
| experience, or theory | | | | | | |
| Never | 4 | 6 | 3 | 3 | 2 | 4 |
| Sometimes | 20 | 30 | 27 | 27 | 7 | 15 |
| Often | 25 | 37 | 39 | 39 | 15 | 32 |
| Very often | 18 | 27 | 31 | 31 | 23 | 49 |
| Forming a new idea or understanding | | | | | | |
| from various pieces of information | | | | | | |
| Never | 3 | 4 | 3 | 3 | 2 | 4 |
| Sometimes | 23 | 33 | 24 | 25 | 10 | 21 |
| Often | 25 | 36 | 38 | 39 | 15 | 31 |
| Very often | 18 | 26 | 33 | 34 | 21 | 44 |
| Making judgments about the value or | | | | | | |
| soundness of information, arguments, or | | | | | | |
| methods | | | | | | |
| Never | 11 | 16 | 8 | 8 | 5 | 10 |
| Sometimes | 25 | 37 | 31 | 31 | 7 | 15 |
| Often | 22 | 32 | 31 | 31 | 16 | 33 |
| Very often | 10 | 15 | 29 | 29 | 20 | 42 |
| Applying theories or concepts to practical | | | | | | |
| problems in new situations | 5 | 8 | 9 | 9 | 2 | 4 |
| Never | 28 | 42 | 30 | 30 | 9 | 19 |
| Sometimes | 16 | 24 | 34 | 34 | 16 | 33 |
| Often | 18 | 27 | 26 | 26 | 21 | 44 |
| Very often | | | | | | |

Students were asked how much their experience at ISTC contributed to their knowledge, skills, and personal development. Responses were measured on a four-point scale with the options very little, some, quite a bit, and very much. Table 17 displays the responses by campus.

Approximately 90% of respondents at all three campuses reported that classes at ISTC contributed quite a bit or very much to acquiring job- or work-related skills. At Tutwiler, 88% of students responded that their ability to speak clearly and effectively was enhanced quite a bit or very much through their classes at ISTC. At Draper, 55% percent of respondents reported that ISTC courses contributed quite a bit or very much to their knowledge, skill, and personal development regarding writing clearly and effectively. At Main, almost two-thirds (64%) of students reported that ISTC contributed to their ability to write clearly and effectively quite a bit or very much, whereas 80% of students at Tutwiler selected those responses.

Almost two-thirds (68%) of students at Draper, Main (64%), and Tutwiler (64%) responded that analyzing numerical and statistical data been enhanced quite a bit or very much through education at ISTC. Lastly, students were asked how ISTC contributed to their personal development in solving problems. The largest percentage of respondents at Draper (70%), Tutwiler (74%), and Main (66%) responded quite a bit or very much.
| | Dra | iper | Ma | ain | Tutv | viler |
|--|-----|------|----|-----|------|-------|
| Variable | n | % | n | % | n | % |
| Acquiring job- or work-related knowledge | | | | | | |
| and skills | | | | | | |
| Very little | 3 | 4 | 1 | 1 | 0 | 0 |
| Some | 1 | 1 | 8 | 8 | 5 | 11 |
| Quite a bit | 20 | 28 | 30 | 29 | 11 | 23 |
| Very much | 47 | 66 | 64 | 6 | 31 | 66 |
| Speaking clearly and effectively | | | | | | |
| Very little | 4 | 6 | 5 | 5 | 3 | 6 |
| Some | 18 | 26 | 19 | 19 | 3 | 6 |
| Quite a bit | 20 | 29 | 35 | 35 | 13 | 28 |
| Very much | 26 | 38 | 41 | 41 | 28 | 60 |
| Writing clearly and effectively | | | | | | |
| Very little | 9 | 13 | 4 | 4 | 3 | 6 |
| Some | 22 | 31 | 32 | 32 | 6 | 13 |
| Quite a bit | 17 | 24 | 27 | 27 | 11 | 23 |
| Very much | 22 | 31 | 37 | 37 | 27 | 57 |
| Analyzing numerical and statistical | | | | | | |
| information | | | | | | |
| Very little | 9 | 13 | 9 | 9 | 3 | 6 |
| Some | 15 | 22 | 22 | 22 | 14 | 30 |
| Quite a bit | 24 | 35 | 32 | 32 | 7 | 15 |
| Very much | 20 | 29 | 36 | 36 | 23 | 49 |
| Personal development in solving problems | | | | | | |
| Very little | 8 | 12 | 9 | 9 | 3 | 6 |
| Some | 12 | 18 | 24 | 24 | 9 | 19 |
| Quite a bit | 20 | 29 | 34 | 34 | 10 | 21 |
| Very much | 28 | 41 | 32 | 32 | 25 | 53 |

Student Experience by Campus Regarding How ISTC Contributed to Knowledge, Skills, and Personal Development

Students were asked about their personal experiences at ISTC. The stem question was: "Since entering college at ISTC, how often have you felt..." The response scale was very often, often, sometimes, and never. Over 90% of students at Draper (93%) and Tutwiler (91%) responded that courses inspired them to think in new ways often or very often, while 84% of students at Main selected often or very often. Over 80% of respondents at Draper (89%) Main (81%), and Tutwiler (87%) selected often or very often to having felt family support to succeed. A majority of students at Draper (89%), Main (78%), and Tutwiler (87%) reported that instructors provided them with feedback in order to improve in classes often or very often. Similarly, a majority of students at Draper (88%), Main (84%), and Tutwiler (95%) selected often or very often for instructors having encouraged them to ask questions and participate. The results are displayed in Table 18.

Table 18

| | Dr | aper | М | lain | Tut | wiler |
|--|----|------|----|------|-----|-------|
| Variable | n | % | n | % | n | % |
| My courses inspired me to think in a new | | | | | | |
| way | | | | | | |
| Never | 2 | 2.8 | 3 | 2.9 | 1 | 2.1 |
| Sometimes | 3 | 4.2 | 13 | 12.7 | 3 | 6.4 |
| Often | 20 | 28.2 | 28 | 27.5 | 10 | 21.3 |
| Very often | 46 | 64.8 | 58 | 56.9 | 33 | 70.2 |
| Family support to succeed | | | | | | |
| Never | 1 | 1.5 | 7 | 7.1 | 0 | 0.0 |
| Sometimes | 6 | 8.8 | 11 | 11.1 | 6 | 12.8 |
| Often | 14 | 20.6 | 29 | 29.3 | 8 | 17.0 |
| Very often | 47 | 69.1 | 52 | 52.5 | 33 | 70.2 |
| Instructors have provided me with | | | | | | |
| feedback in order to improve in classes | | | | | | |
| Never | 0 | 0 | 2 | 2.1 | 2 | 4.3 |
| Sometimes | 7 | 10.1 | 19 | 19.6 | 4 | 8.5 |
| Often | 13 | 18.8 | 22 | 22.7 | 12 | 25.5 |
| Very often | 49 | 71 | 54 | 55.7 | 29 | 61.7 |
| My contributions are valued in class | | | | | | |
| Never | 1 | 1.4 | 2 | 2.0 | 0 | 0.0 |
| Sometimes | 9 | 13.0 | 24 | 24.2 | 9 | 18.8 |
| Often | 34 | 49.3 | 39 | 39.4 | 9 | 18.8 |
| Very often | 25 | 36.2 | 34 | 34.3 | 30 | 62.5 |
| Instructors have encouraged me to ask | | | | | | |
| questions and participate | | | | | | |
| Never | 1 | 1.4 | 1 | 1.0 | 1 | 2.1 |
| Sometimes | 7 | 10.0 | 15 | 14.9 | 1 | 2.1 |
| Often | 13 | 18.6 | 26 | 25.7 | 13 | 27.1 |
| Very often | 49 | 70.0 | 59 | 58.4 | 33 | 68.8 |

Frequency by Campus that Students Felt the Following Since Entering ISTC

The participants were asked about their frequency of these interactions with available responses of very often, often, sometimes, and never. The results are displayed by campus in Table 19. Over three quarters (84%) of Draper students responded often or very often to being encouraged to study on their own, while 88% of Main students and 88% of Tutwiler students selected the same level of frequency. Approximately 90% students at Draper (96%), Main (90%), and Tutwiler (88%) reported that instructors gave them support to complete classes often or very often. Each campus had different levels of agreement to the question of instructors discussing career goals with them. At Draper, 78% of students selected the same response.

Table 19

| | Dr | aper | M | <u>lain</u> | Tut | wiler |
|----------------------------------|----|------|----|-------------|-----|-------|
| Variable | n | % | n | % | n | % |
| Encourage you to study on own | | | | | | |
| Never | 2 | 3 | 3 | 3 | 2 | 4 |
| Sometimes | 9 | 13 | 9 | 9 | 4 | 8 |
| Often | 24 | 35 | 37 | 37 | 12 | 25 |
| Very often | 34 | 49 | 52 | 51 | 30 | 63 |
| Give you the support you need to | | | | | | |
| complete classes | | | | | | |
| Never | 0 | 0 | 1 | 1 | 2 | 4 |
| Sometimes | 3 | 4 | 9 | 9 | 4 | 8 |
| Often | 17 | 25 | 33 | 32 | 7 | 15 |
| Very often | 49 | 71 | 60 | 58 | 35 | 73 |
| Use computer in class | | | | | | |
| Never | 25 | 37 | 23 | 24 | 8 | 17 |
| Sometimes | 21 | 31 | 30 | 31 | 12 | 26 |
| Often | 12 | 18 | 12 | 12 | 5 | 11 |
| Very often | 10 | 15 | 32 | 33 | 22 | 47 |
| Discuss career goals with you | | | | | | |
| Never | 2 | 3 | 8 | 8 | 3 | 6 |
| Sometimes | 14 | 20 | 21 | 21 | 5 | 10 |
| Often | 17 | 24 | 33 | 33 | 7 | 15 |
| Very often | 38 | 54 | 37 | 37 | 33 | 69 |

Frequency by Campus of Instructor Interaction with Students

Table 20 features the number of hours per week students spend preparing for class and discussing classwork with other students. More than 46% of students at Tutwiler, 66% of students at Draper, and 57% of students at Main responded with 1 to 5 hours preparing for class. The majority of students at all three campuses (59% at Draper, 63% at Main, and 52% at Tutwiler) responded that they spent 1 to 5 hours per week discussing classwork with other classmates.

Table 20

| | Dra | iper | M | ain | Tuty | viler |
|---------------------------------|-----|------|----|-----|------|-------|
| Variable | n | % | n | % | n | % |
| Hours preparing for class | | | | | | |
| None | 5 | 7 | 13 | 13 | 6 | 13 |
| 1 to 5 | 47 | 66 | 58 | 57 | 22 | 47 |
| 6 to 10 | 12 | 17 | 14 | 14 | 8 | 17 |
| 11 to 20 | 3 | 4 | 10 | 10 | 2 | 4 |
| More than 21 | 4 | 6 | 6 | 6 | 9 | 19 |
| Discussing classwork with other | | | | | | |
| classmates | | | | | | |
| None | 8 | 12 | 9 | 9 | 5 | 10 |
| 1 to 5 | 40 | 59 | 62 | 63 | 25 | 52 |
| 6 to 10 | 12 | 18 | 15 | 15 | 8 | 17 |
| 11 to 20 | 6 | 9 | 7 | 7 | 2 | 4 |
| More than 21 | 2 | 3 | 5 | 5 | 8 | 17 |

Frequency of Hours Spent Doing the Following Each Week

Students at the three campuses were asked to indicate how supportive other students, instructors, administrators, and student services were of their academic success. Students were given the following responses to select from: not very, somewhat, quite a bit, and extremely supportive. Table 21 indicates student responses by campus.

Fewer than 12% of respondents at all three campuses answered that other students were not very supportive. Among Tutwiler students, 79% responded that other students were quite a

bit or extremely supportive. Over 90% of students at both Draper and Tutwiler selected that instructors were quite a bit or extremely supportive of their academic success. At Main campus, the majority of students, 58%, found instructors extremely supportive and 30% agreed they were quite a bit supportive.

Nearly unanimous, 91% of Draper students and 91% of Tutwiler students selected quite a bit or extremely supportive when describing the support they received from college administrators. The vast majority of respondents at all three campuses also agreed that student support services staff were quite a bit or extremely supportive of their success, with 90% at Draper, 88% at Main, and 94% at Tutwiler.

| | Dra | nper | M | ain | Tuty | viler |
|---|-----|------|----|-----|------|-------|
| Variable | n | % | n | % | n | % |
| How supportive are other students of your | | | | | | |
| academic success | | | | | | |
| Not very | 4 | 6 | 11 | 11 | 1 | 2 |
| Somewhat | 10 | 15 | 24 | 24 | 9 | 19 |
| Quite a bit | 35 | 52 | 41 | 42 | 15 | 32 |
| Extremely supportive | 18 | 27 | 22 | 22 | 22 | 47 |
| How supportive are instructors of your | | | | | | |
| academic success | | | | | | |
| Not very | 0 | 0 | 2 | 2 | 0 | 0 |
| Somewhat | 3 | 4 | 9 | 9 | 3 | 6 |
| Quite a bit | 18 | 26 | 29 | 30 | 9 | 19 |
| Extremely supportive | 48 | 70 | 56 | 58 | 35 | 74 |
| How supportive are college administrators | | | | | | |
| of your academic success | | | | | | |
| Not very | 3 | 4 | 6 | 6 | 1 | 2 |
| Somewhat | 3 | 4 | 12 | 13 | 3 | 7 |
| Quite a bit | 29 | 43 | 25 | 26 | 8 | 17 |
| Extremely supportive | 32 | 48 | 52 | 55 | 34 | 74 |
| How supportive are student support | | | | | | |
| services staff of your academic success | | | | | | |
| Not very | 4 | 6 | 5 | 5 | 3 | 7 |
| Somewhat | 3 | 4 | 16 | 16 | 0 | 0 |
| Quite a bit | 25 | 37 | 28 | 29 | 9 | 20 |
| Extremely supportive | 36 | 53 | 48 | 49 | 34 | 74 |

Descriptive Statistics by Campus of Level of Support for Helping With Academic Success

Students were asked how often they discuss their classes with other students. The results in Table 22 are displayed by campus. Students could select from the responses of never, sometimes, often, and very often. Less than 23% of students at each campus responded that they never or sometimes discussed classes with other students. At Draper, 80% of students responded they often or very often discussed their classes with other students. At Main, 77% of students responded they often or very often discussed their classes with other students. At Tutwiler, 83% of students responded they often or very often discussed their classes with other students.

Frequency Students Discuss Classes With Other Students by Campus

| | Draper | | Main | | Tutwiler | |
|---|--------|----|------|----|----------|----|
| Variable | n | % | n | % | n | % |
| Often discuss class with other students | | | | | | |
| Never | 2 | 3 | 3 | 3 | 0 | 0 |
| Sometimes | 12 | 17 | 20 | 20 | 8 | 17 |
| Often | 29 | 41 | 34 | 33 | 15 | 32 |
| Very often | 28 | 39 | 45 | 44 | 24 | 51 |

Table 23 depicts the number of students who were involved in campus organizations. Due to the number of responses, numbers below 5 are suppressed. On Draper campus, the greatest number of responses were in the Dean's list category with 33.3% (n = 17). On Main campus, 57% (n = 35) of students reported achieving the President's list. On Tutwiler campus, 28% (n = 17) of students also selected achieving President's list.

Table 23

Descriptive Statistics by Campus of Members in Campus Organizations

| | Draper | | <u>Main</u> | | <u>Tutwiler</u> | |
|------------------|--------|------|-------------|------|-----------------|------|
| Variable | n | % | n | % | n | % |
| Ambassador | * | * | * | * | 6 | 14.6 |
| Innovator | * | * | * | * | * | * |
| Dean's list | 17 | 51.5 | 25 | 32.4 | 9 | 21.9 |
| President's list | 9 | 27.2 | 35 | 45.4 | 17 | 41.4 |
| NTHS | * | * | * | * | * | * |
| РТК | * | * | 6 | 7.7 | * | * |

Note. Students could participate in more than one group.

Students were asked their reasons and goals for taking classes at the education site where they were enrolled at the time of the survey administration. The stem question was followed by seven categories with the answer options of not a goal, secondary goal, and primary goal. The student responses are listed in Table 24 by campus. To complete a certificate program was a primary goal of more than 75% of respondents at all three campuses. Obtaining an associate degree was a primary goal of 56% of students at Draper campus. The same goal was a secondary goal of 43% of students at Main and 50% of students at Tutwiler.

Transferring to a two-year college was evenly split between not a goal and secondary goal at Main with 35% each. It was also a secondary goal at Draper for 37% of students and at Tutwiler for 44% of students. Transferring to a four-year college was not a goal of the largest number of students at Main (62%). It was a secondary goal for 39% of students at Draper. At Tutwiler, transferring to a four-year college was a primary goal for 44% of students.

More than three-quarters of respondents at the three campuses responded that obtaining or updating job skills was a primary goal. Over 80% of students across campuses identified selfimprovement and personal enjoyment as a primary goal for taking classes. Having an activity to occupy their time was a primary goal for 48% of respondents at Main and 40% at Tutwiler. At Draper, this was a secondary goal for 42% for respondents.

| | Dra | per | M | ain | Tutv | viler |
|---|-----|----------|----|-----|------|-------|
| Variable | n | <u>%</u> | n | % | п | % |
| Complete a certificate program | | | | | | |
| Not a goal | 6 | 10 | 7 | 7 | 4 | 10 |
| Secondary goal | 9 | 15 | 15 | 16 | 3 | 7 |
| Primary goal | 46 | 75 | 74 | 77 | 35 | 83 |
| Obtain an associate degree | | | | | | |
| Not a goal | 10 | 16 | 21 | 24 | 8 | 20 |
| Secondary goal | 17 | 28 | 38 | 43 | 20 | 50 |
| Primary goal | 34 | 56 | 29 | 33 | 12 | 30 |
| Transfer to two-year college | | | | | | |
| Not a goal | 18 | 30 | 32 | 35 | 12 | 31 |
| Secondary goal | 22 | 37 | 32 | 35 | 17 | 44 |
| Primary goal | 20 | 33 | 27 | 30 | 10 | 26 |
| Transfer to four-year college | | | | | | |
| Not a goal | 22 | 30 | 52 | 62 | 17 | 41 |
| Secondary goal | 24 | 37 | 22 | 26 | 6 | 15 |
| Primary goal | 15 | 33 | 10 | 12 | 18 | 44 |
| Obtain or update job skills | | | | | | |
| Not a goal | 1 | 2 | 3 | 3 | 3 | 7 |
| Secondary goal | 8 | 13 | 17 | 18 | 5 | 12 |
| Primary goal | 53 | 85 | 72 | 78 | 35 | 81 |
| Self-improvement/personal enjoyment | | | | | | |
| Not a goal | 3 | 5 | 2 | 2 | 1 | 2 |
| Secondary goal | 5 | 8 | 8 | 9 | 6 | 14 |
| Primary goal | 57 | 88 | 83 | 89 | 35 | 83 |
| To have an activity to occupy your time | | | | | | |
| Not a goal | 13 | 20 | 14 | 15 | 12 | 30 |
| Secondary goal | 27 | 42 | 34 | 37 | 12 | 30 |
| Primary goal | 25 | 38 | 44 | 48 | 16 | 40 |

Table 25 describes students' level of agreement with recommending classes to another person living in their facility but not currently attending ISTC. Across the three campuses, over 90% of students agreed somewhat or agreed strongly that they would recommend taking classes.

| | Draper | | Main | | <u>Tutwiler</u> | |
|--------------------------|--------|----|------|----|-----------------|-----|
| Variable | n | % | n | % | n | % |
| Recommend taking classes | | | | | | |
| Disagree strongly | 3 | 4 | 1 | 1 | 0 | 4 |
| Disagree somewhat | 3 | 4 | 4 | 4 | 1 | 8 |
| Agree somewhat | 14 | 20 | 15 | 15 | 2 | 31 |
| Agree strongly | 49 | 71 | 80 | 80 | 42 | 171 |

Students Level of Agreement by Campus with Recommending Taking Classes

Students were asked to rate their overall education experience at ISTC. Students were given the choices of poor, fair, good, and excellent. No students rated their experience as poor. The category with the greatest number of respondents was excellent, which was selected by 75% of students at Tutwiler, 64% of students at Draper, and 58% of students at Main. The responses are displayed in Table 26.

Table 26

Student Evaluation by Campus of Entire Education Experience at ISTC

| | Dr | <u>Draper</u> | | Main | | wiler |
|-----------------------------------|----|---------------|----|------|----|-------|
| Variable | n | % | п | % | п | % |
| Rate education experience at ISTC | | | | | | |
| Poor | 0 | 0 | 0 | 0 | 0 | 0 |
| Fair | 4 | 5.7 | 4 | 4.0 | 1 | 2.2 |
| Good | 21 | 30.0 | 38 | 38.0 | 10 | 22.2 |
| Excellent | 45 | 64.3 | 58 | 58.0 | 34 | 75.6 |

Table 27 displays the reasons and frequency for students missing classes. The response options were never, sometimes, often, and very often. Over 90% of students at Draper, Main, and Tutwiler responded they never missed classes for disciplinary reasons. Respondents at all three campuses self-reported they sometimes missed classes due to health reasons (56% at Draper, 42% at Main, and 56% at Tutwiler).

| | Dra | aper | Μ | ain | Tut | wiler |
|-----------------------|-----|------|----|------|-----|-------|
| Variable | n | % | n | % | n | % |
| Health reasons | | | | | | |
| Never | 14 | 21.9 | 39 | 40.2 | 13 | 30.2 |
| Sometimes | 36 | 56.3 | 41 | 42.3 | 24 | 55.8 |
| Often | 7 | 10.9 | 5 | 5.2 | 4 | 9.3 |
| Very often | 7 | 10.9 | 12 | 12.4 | 2 | 4.7 |
| Disciplinary reasons | | | | | | |
| Never | 56 | 94.9 | 84 | 93.3 | 38 | 92.7 |
| Sometimes | 2 | 3.4 | 2 | 2.2 | 3 | 7.3 |
| Often | 0 | 0 | 2 | 2.2 | 0 | 0 |
| Very often | 1 | 1.7 | 2 | 2.2 | 0 | 0 |
| Didn't want to attend | | | | | | |
| Never | 51 | 94.9 | 84 | 90.1 | 33 | 78.6 |
| Sometimes | 5 | 3.4 | 2 | 6.6 | 9 | 21.4 |
| Often | 1 | 0 | 2 | 0 | 0 | 0 |
| Very often | 2 | 1.7 | 2 | 3.3 | 0 | 0 |
| Personal reasons | | | | | | |
| Never | 28 | 43.8 | 59 | 64.1 | 20 | 46.5 |
| Sometimes | 22 | 34.4 | 25 | 27.2 | 22 | 51.2 |
| Often | 6 | 9.4 | 3 | 3.3 | 0 | 0 |
| Very often | 8 | 12.5 | 5 | 5.4 | 1 | 2.3 |

Frequency of Students' Reasons for Missing Classes at ISTC

Self-reported grade-point average (GPA) of students at all three campuses is displayed in Table 28. Respondents were given the option to select A, B, C, D or lower, or no GPA. At Tutwiler, the majority of students, 80% (n = 35), self-reported a GPA of A. The largest percentage of students at Main, 56%, reported a GPA of A. At Draper, the largest percentage of students, 43%, reported B as their GPA. One in four students at Draper reported A as their GPA.

| | Dra | aper | Μ | ain | Tut | wiler |
|---------------------|-----|------|----|------|-----|-------|
| Variable | n | % | n | % | n | % |
| Grade-point average | | | | | | |
| No GPA | 10 | 15.9 | 4 | 4.2 | 3 | 6.8 |
| D or lower | 1 | 1.6 | 3 | 3.1 | 0 | 0 |
| С | 9 | 14.3 | 7 | 7.3 | 1 | 2.3 |
| В | 27 | 42.9 | 28 | 29.2 | 5 | 11.4 |
| А | 16 | 25.4 | 54 | 56.3 | 35 | 79.5 |

Descriptive Statistics of GPA by Campus

Students were asked their level of agreement with the stem question: "Do you think the skills you are learning now will help you with the following after release?" The Likert scale for this question was agree strongly, agree somewhat, disagree somewhat, and disagree strongly. Table 29 displays the responses by campus. Over 95% of students at Draper and Tutwiler and 84% of students at Main agreed strongly that the skills they were learning would help them obtain a job. More than half of students at all three campuses strongly agreed that skills they were learning would help them adjust to returning home. Over 71% of respondents at Tutwiler selected strongly agree for this question. No students disagreed strongly that the skills they were learning would help them work with others in a similar field, and more than 70% of respondents selected agree strongly.

| Descriptive | <i>Statistics</i> | by (| Campus (| of Skill | Develo | pment |
|-------------|-------------------|------|----------|----------|--------|-------|
| | | | | | | |

| | Dra | aper | M | ain | Tut | wiler |
|-----------------------------------|-----|------|----|------|-----|-------|
| Variable | п | % | n | % | n | % |
| Obtain a job | | | | | | |
| Disagree strongly | 0 | 0 | 0 | 0 | 0 | 0 |
| Disagree somewhat | 0 | 0 | 0 | 0 | 1 | 2 |
| Agree somewhat | 2 | 3 | 16 | 16 | 1 | 2 |
| Agree strongly | 65 | 97 | 84 | 84 | 44 | 96 |
| Adjust to returning home | | | | | | |
| Disagree strongly | 0 | 0 | 2 | 2 | 1 | 2 |
| Disagree somewhat | 2 | 2.9 | 5 | 5.1 | 2 | 4 |
| Agree somewhat | 26 | 38.2 | 27 | 27.3 | 10 | 22 |
| Agree strongly | 40 | 58.8 | 65 | 65.7 | 33 | 72 |
| Work with others in similar field | | | | | | |
| Disagree strongly | 0 | 0 | 0 | 0 | 0 | 0 |
| Disagree somewhat | 2 | 3.0 | 3 | 3.1 | 0 | 0 |
| Agree somewhat | 14 | 20.9 | 22 | 22.4 | 4 | 8.7 |
| Agree strongly | 51 | 76.1 | 73 | 74.5 | 42 | 91.3 |
| Participate in community | | | | | | |
| Disagree strongly | 5 | 7.7 | 2 | 2.0 | 0 | 0 |
| Disagree somewhat | 7 | 10.8 | 9 | 9.2 | 6 | 13.0 |
| Agree somewhat | 22 | 33.8 | 32 | 32.7 | 9 | 19.6 |
| Agree strongly | 31 | 47.7 | 55 | 56.1 | 31 | 67.4 |

The stem statement, "indicate the importance to you personally of the following," was followed by 13 items. Students were asked to choose from very important, important, somewhat important, and not important. The responses are displayed by campus in Table 30.

Becoming successful in a business of one's own was selected as important or very important to over 92% of respondents at Draper and Main versus 78% at Tutwiler. Recognition of work by colleagues and influencing social values was important or very important for 68% of students at Draper, 73% for students at Main, and 71% for students at Tutwiler. Almost three-quarters of students at the three campuses selected that influencing social values was important to them.

The vast majority of respondents selected raising a family as important or very important. More than three-quarters of respondents selected being very well off financially and helping others who are in difficulty as important or very important to them at all campuses. Writing original works like poems or novels was not important to 45% of students at Draper, 44% of students at Main, and 49% of students at Tutwiler. Creating artistic works was somewhat important to 29% of students at Draper, 30% of students at Main, and 33% of students at Tutwiler.

Of the students who responded at Tutwiler, 56% selected helping promote racial equality as important or very important. At Main, 68% of students selected helping promote racial equality as important or very important, and 54% at Draper selected important or very important. Less than 50% of respondents at Main and Tutwiler selected keeping up to date with political affairs as important or very important to them, while 51% of students at Draper responded with important or very important. Becoming a community leader was important or very important to approximately 60% of students at Draper and Tutwiler. At Main, over 70% of respondents selected becoming a community leader as important. Over 60% of respondents across all campuses selected it was very important to encourage others to participate in educational programs.

Descriptive Statistics by Campus of Factors of Personal Importance

| Variable n % n % n % Becoming successful in a business of my own Not important 3 4.4 2 2.1 3 6.5 Somewhat important 2 2.9 4 4.1 7 15.2 Important 13 19.1 21 21.6 10 21.7 Very important 50 73.5 70 72.2 26 56.5 Recognition of my colleagues and others for my work 8.7 Not important 16 24.2 19 20.4 9 19.6 Important 16 24.2 13 35.5 15 32.6 Very important 16 24.2 33 35.5 15 32.6 Not important 27 41.5 26 27.4 15 33.3 Very important 21 32.3 52 54.7 23 51.1 Raising a family | | Dra | aper | M | ain | Tut | wiler |
|---|---|-----|------|----|------|-----|-------|
| Becoming successful in a business of my ownNot important34.422.136.5Somewhat important1319.12121.61021.7Very important5073.57072.22656.5Recognition of my colleagues and others for my work5073.57072.22656.5Recognition of my colleagues and others for my work57.666.548.7Somewhat important1624.21920.4919.6Important2943.93335.51532.6Very important1624.23537.61839.1Influencing social values01421.51515.8613.3Important2741.52627.41533.3Very important2132.35254.72351.1Raising a family022.144.911Not important11.544.312.2Somewhat important23.022.144.9Important11.533.200Somewhat important11.533.200Somewhat important11.533.200Somewhat important11.533.200Somewhat important6 | Variable | n | % | n | % | n | % |
| own 3 4.4 2 2.1 3 6.5 Somewhat important 2 2.9 4 4.1 7 15.2 Important 13 19.1 21 21.6 10 21.7 Very important 50 73.5 70 72.2 26 56.5 Recognition of my colleagues and others 50 7.6 6 6.5 4 8.7 Somewhat important 16 24.2 19 20.4 9 19.6 Important 29 43.9 33 35.5 15 32.6 Very important 16 24.2 35 37.6 18 39.1 Influencing social values Not important 14 21.5 15 15.8 6 13.3 Important 21 32.3 52 54.7 23 51.1 Raising a family . | Becoming successful in a business of my | | | | | | |
| Not important34.422.136.5Somewhat important22.944.1715.2Important1319.12121.61021.7Very important5073.57072.22656.5Recognition of my colleagues and others5073.57072.22656.5Recognition of my colleagues and others57.666.548.7Somewhat important1624.21920.4919.6Important2943.93335.51532.6Very important1624.23537.61839.1Influencing social values112.515.8613.3Important2132.35254.72351.1Raising a family2132.35254.72351.1Raising a family11.544.312.2Somewhat important11.533.200Somewhat important11.533.200Not important11.533.200Not important11.533.200Somewhat important11.533.200Not important11.533.200Not important45.558.52657.8 | own | | | | | | |
| Somewhat important22.944.1715.2Important1319.12121.61021.7Very important5073.57072.22656.5Recognition of my colleagues and others5073.57072.22656.5Recognition of my colleagues and others57.666.548.7Somewhat important1624.21920.4919.6Important2943.93335.51532.6Very important1624.23537.61839.1Influencing social values741.52627.41533.3Very important1421.51515.8613.3Important2132.35254.72351.1Raising a family741.52627.41533.3Very important11.544.312.2Somewhat important11.544.312.2Somewhat important11.533.200Not important11.533.200Somewhat important11.533.200Somewhat important11.533.200Somewhat important11.533.200Not important42.12 | Not important | 3 | 4.4 | 2 | 2.1 | 3 | 6.5 |
| Important 13 19.1 21 21.6 10 21.7 Very important 50 73.5 70 72.2 26 56.5 Recognition of my colleagues and others for my work 5 7.6 6 6.5 4 8.7 Not important 16 24.2 19 20.4 9 19.6 Important 29 43.9 33 35.5 15 32.6 Very important 16 24.2 35 37.6 18 39.1 Influencing social values 3 4.6 2 2.1 1 2.2 Somewhat important 14 21.5 15 15.8 6 13.3 Important 27 41.5 26 27.4 15 33.3 Very important 21 32.3 52 54.7 23 51.1 Raising a family 0 2 2.1 4 8.9 11 16.4 17 18.1 2 4.4 Very important 1 1.5 3 3.2 0 | Somewhat important | 2 | 2.9 | 4 | 4.1 | 7 | 15.2 |
| Very important5073.57072.22656.5Recognition of my colleagues and others for my workNot important57.666.548.7Somewhat important1624.21920.4919.619.6Important2943.93335.51532.6Very important1624.23537.61839.1Influencing social values741.52627.41533.3Important2741.52627.41533.3Very important2132.35254.72351.1Raising a family71116.41718.124.4Very important11.533.200Somewhat important11.533.200Not important11.533.200Not important11.533.200Not important11.533.200Not important11.533.200Not important11.533.200Not important11.533.200Not important11.533.200Not important11.533.51.53.6Very important4568.255< | Important | 13 | 19.1 | 21 | 21.6 | 10 | 21.7 |
| Recognition of my colleagues and others for my workNot important57.666.548.7Somewhat important1624.21920.4919.6Important2943.93335.51532.6Very important1624.23537.61839.1Influencing social values1622.112.2Somewhat important1421.51515.8613.3Important2741.52627.41533.3Very important2132.35254.72351.1Raising a family11.544.312.2Somewhat important11.544.312.2Somewhat important23.022.148.9Important11.6.41718.124.4Very important5379.17175.53884.4Being very well off financially11.533.200Not important69.11313.836.7Important1421.22324.51635.6Very important4568.25558.52657.8Helping others who are in difficulty710.466.436.7Important1826.93335.11533.3 </td <td>Very important</td> <td>50</td> <td>73.5</td> <td>70</td> <td>72.2</td> <td>26</td> <td>56.5</td> | Very important | 50 | 73.5 | 70 | 72.2 | 26 | 56.5 |
| for my workNot important57.666.548.7Somewhat important1624.21920.4919.6Important2943.93335.51532.6Very important1624.23537.61839.1Influencing social values \cdot \cdot \cdot \cdot \cdot Not important34.622.112.2Somewhat important1421.51515.8613.3Important2741.52627.41533.3Very important2132.35254.72351.1Raising a family \cdot \cdot \cdot \cdot \cdot \cdot Not important11.544.312.2Somewhat important11.6.41718.124.4Very important11.533.200Somewhat important11.533.200Somewhat important11.533.200Somewhat important4568.25558.52657.8Helping others who are in difficulty \cdot \cdot \cdot \cdot \cdot Not important710.466.436.7Important710.466.436.7Important1826.933 <td< td=""><td>Recognition of my colleagues and others</td><td></td><td></td><td></td><td></td><td></td><td></td></td<> | Recognition of my colleagues and others | | | | | | |
| Not important57.666.548.7Somewhat important16 24.2 19 20.4 919.6Important29 43.9 33 35.5 15 32.6 Very important16 24.2 35 37.6 18 39.1 Influencing social values3 4.6 2 2.1 1 2.2 Somewhat important14 21.5 1515.8613.3Important27 41.5 26 27.4 1533.3Very important21 32.3 52 54.7 23 51.1 Raising a family1 1.5 4 4.3 1 2.2 Somewhat important1 1.5 3 3.2 0 0 Not important1 1.5 3 3.2 0 0 Somewhat important6 9.1 13 13.8 3 6.7 Important1 1.5 3 3.2 0 0 Somewhat important 6 9.1 13 13.8 3 6.7 Important 42 22.7 55 58.5 26 57.8 Helping others who are in difficulty 7 10.4 6 | for my work | | | | | | |
| Somewhat important16 24.2 19 20.4 9 19.6 Important29 43.9 33 35.5 15 32.6 Very important16 24.2 35 37.6 18 39.1 Influencing social values 16 24.2 35 37.6 18 39.1 Influencing social values 16 24.2 35 37.6 18 39.1 Influencing social values 14 21.5 15 15.8 6 13.3 Important 27 41.5 26 27.4 15 33.3 Very important 21 32.3 52 54.7 23 51.1 Raising a family 1 1.5 4 4.3 1 2.2 Somewhat important 1 1.5 4 4.3 1 2.2 Somewhat important 1 1.5 4 4.3 1 2.2 Somewhat important 1 1.64 17 18.1 2 4.4 Very important 53 79.1 71 75.5 38 84.4 Being very well off financially 1 1.5 3 3.2 0 $.0$ Not important 6 9.1 13 13.8 3 6.7 Important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 7 10.4 6 6.4 3 6.7 Important 7 1 | Not important | 5 | 7.6 | 6 | 6.5 | 4 | 8.7 |
| Important29 43.9 33 35.5 15 32.6 Very important16 24.2 35 37.6 18 39.1 Influencing social values3 4.6 2 2.1 1 2.2 Somewhat important14 21.5 15 15.8 6 13.3 Important27 41.5 26 27.4 15 33.3 Very important21 32.3 52 54.7 23 51.1 Raising a family 1 1.5 4 4.3 1 2.2 Somewhat important1 1.5 4 4.3 1 2.2 Somewhat important2 3.0 2 2.1 4 8.9 Important1 $1.6.4$ 17 18.1 2 4.4 Very important 53 79.1 71.5 75.5 38 84.4 Being very well off financially 1 1.5 3 3.2 0 0 Not important1 1.5 3 3.2 0 0 Somewhat important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 42 62.7 55 58.5 26 57.8 Helping others who are in difficulty 7 10.4 6 6.4 | Somewhat important | 16 | 24.2 | 19 | 20.4 | 9 | 19.6 |
| Very important16 24.2 35 37.6 18 39.1 Influencing social values3 4.6 2 2.1 1 2.2 Somewhat important14 21.5 15 15.8 6 13.3 Important 27 41.5 26 27.4 15 33.3 Very important 21 32.3 52 54.7 23 51.1 Raising a family 1 1.5 4 4.3 1 2.2 Somewhat important 1 1.5 4 4.3 1 2.2 Somewhat important 2 3.0 2 2.1 4 8.9 Important 11 16.4 17 18.1 2 4.4 Very important 53 79.1 71 75.5 38 84.4 Being very well off financially 1 1.5 3 3.2 0 $.0$ Not important 6 9.1 13 13.8 3 6.7 Important 14 21.2 23 24.5 16 35.6 Very important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 7 10.4 6 6.4 3 6.7 Important 7 10.4 6 6.4 3 6.7 Important 7 10.4 6 6.4 3 6.7 Important 42 62.7 55 58.5 26 </td <td>Important</td> <td>29</td> <td>43.9</td> <td>33</td> <td>35.5</td> <td>15</td> <td>32.6</td> | Important | 29 | 43.9 | 33 | 35.5 | 15 | 32.6 |
| Influencing social values34.622.112.2Somewhat important1421.51515.8613.3Important2741.52627.41533.3Very important2132.35254.72351.1Raising a family11.544.312.2Somewhat important23.022.148.9Important1116.41718.124.4Very important5379.17175.53884.4Being very well off financially11.533.20.0Somewhat important11.533.20.0Somewhat important69.11313.836.7Important1421.22324.51635.6Very important4568.25558.52657.8Helping others who are in difficulty00012.2Somewhat important710.466.436.7Important1826.93335.11533.3Very important4262.75558.52657.8Writing original works like poems or535558.52657.8 | Very important | 16 | 24.2 | 35 | 37.6 | 18 | 39.1 |
| Not important34.622.112.2Somewhat important1421.51515.8613.3Important2741.52627.41533.3Very important2132.35254.72351.1Raising a family11.544.312.2Somewhat important23.022.148.9Important1116.41718.124.4Very important5379.17175.53884.4Being very well off financially11.533.20.0Somewhat important11.533.20.0Somewhat important69.11313.836.7Important1421.22324.51635.6Very important4568.25558.52657.8Helping others who are in difficulty00012.2Somewhat important710.466.436.7Important1826.93335.11533.3Very important4262.75558.52657.8Writing original works like poems ornovels14.614.41534.4 | Influencing social values | | | | | | |
| Somewhat important14 21.5 15 15.8 6 13.3 Important27 41.5 26 27.4 15 33.3 Very important21 32.3 52 54.7 23 51.1 Raising a family1 1.5 4 4.3 1 2.2 Somewhat important2 3.0 2 2.1 4 8.9 Important11 16.4 17 18.1 2 4.4 Very important53 79.1 71 75.5 38 84.4 Being very well off financially1 1.5 3 3.2 0 $.0$ Somewhat important6 9.1 13 13.8 3 6.7 Important14 21.2 23 24.5 16 35.6 Very important45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 7 10.4 6 6.4 3 6.7 Important 7 10.4 6 6.4 3 6.7 Important 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or 14.2 14.6 14.4 15.3 33.3 Very important 82.69 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 <td>Not important</td> <td>3</td> <td>4.6</td> <td>2</td> <td>2.1</td> <td>1</td> <td>2.2</td> | Not important | 3 | 4.6 | 2 | 2.1 | 1 | 2.2 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Somewhat important | 14 | 21.5 | 15 | 15.8 | 6 | 13.3 |
| Very important Raising a family Not important 21 32.3 52 54.7 23 51.1 Raising a family Not important1 1.5 4 4.3 1 2.2 Somewhat important2 3.0 2 2.1 4 8.9 Important11 16.4 17 18.1 2 4.4 Very important 53 79.1 71 75.5 38 84.4 Being very well off financially Not important 1 1.5 3 3.2 0 $.0$ Somewhat important6 9.1 13 13.8 3 6.7 Important14 21.2 23 24.5 16 35.6 Very important45 68.2 55 58.5 26 57.8 Helping others who are in difficulty Not important 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 42 62.7 55 58.5 26 57.8 Helping others who are in difficulty Not important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 26 116 116 116 116 116 116 116 | Important | 27 | 41.5 | 26 | 27.4 | 15 | 33.3 |
| Raising a family Not important11.544.312.2Somewhat important2 3.0 2 2.1 4 8.9 Important11 16.4 17 18.1 2 4.4 Very important 53 79.1 71 75.5 38 84.4 Being very well off financially 1 1.5 3 3.2 0 0 Somewhat important 6 9.1 13 13.8 3 6.7 Important 14 21.2 23 24.5 16 35.6 Very important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty Not important 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 42 62.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 26 14.6 14.6 14.6 14.6 | Very important | 21 | 32.3 | 52 | 54.7 | 23 | 51.1 |
| Not important11.544.312.2Somewhat important2 3.0 2 2.1 4 8.9 Important11 16.4 17 18.1 2 4.4 Very important 53 79.1 71 75.5 38 84.4 Being very well off financially 1 1.5 3 3.2 0 $.0$ Not important1 1.5 3 3.2 0 $.0$ Somewhat important6 9.1 13 13.8 3 6.7 Important14 21.2 23 24.5 16 35.6 Very important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 18 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or $a6.7$ $a6.7$ $a6.7$ $a6.7$ | Raising a family | | | | | | |
| Somewhat important2 3.0 2 2.1 4 8.9 Important11 16.4 17 18.1 2 4.4 Very important53 79.1 71 75.5 38 84.4 Being very well off financially1 1.5 3 3.2 0.0Not important1 1.5 3 3.2 0.0Somewhat important6 9.1 13 13.8 3 6.7 Important14 21.2 23 24.5 16 35.6 Very important45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 7 10.4 6 6.4 3 6.7 Important0001 2.2 50 58.5 26 57.8 Helping others who are in difficulty 7 10.4 6 6.4 3 6.7 Important18 26.9 33 35.1 15 33.3 Very important42 62.7 55 58.5 26 57.8 Writing original works like poems or 75 58.5 26 57.8 | Not important | 1 | 1.5 | 4 | 4.3 | 1 | 2.2 |
| Important11 16.4 17 18.1 2 4.4 Very important53 79.1 71 75.5 38 84.4 Being very well off financially1 1.5 3 3.2 0 $.0$ Somewhat important6 9.1 13 13.8 3 6.7 Important14 21.2 23 24.5 16 35.6 Very important45 68.2 55 58.5 26 57.8 Helping others who are in difficulty000 1 2.2 Somewhat important7 10.4 6 6.4 3 6.7 Important18 26.9 33 35.1 15 33.3 Very important42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 116.4 116.4 116.4 116.4 116.4 116.4 | Somewhat important | 2 | 3.0 | 2 | 2.1 | 4 | 8.9 |
| Very important 53 79.1 71 75.5 38 84.4 Being very well off financially 1 1.5 3 3.2 0 .0 Somewhat important 6 9.1 13 13.8 3 6.7 Important 14 21.2 23 24.5 16 35.6 Very important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 18 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 55 58.5 26 57.8 57.8 | Important | 11 | 16.4 | 17 | 18.1 | 2 | 4.4 |
| Being very well off financially Not important11.53 3.2 0.0Somewhat important69.11313.836.7Important1421.22324.51635.6Very important4568.25558.52657.8Helping others who are in difficulty Not important00012.2Somewhat important710.466.436.7Important1826.93335.11533.3Very important4262.75558.52657.8Writing original works like poems or novels1614.614.414.414.4 | Very important | 53 | 79.1 | 71 | 75.5 | 38 | 84.4 |
| Not important1 1.5 3 3.2 0 $.0$ Somewhat important6 9.1 13 13.8 3 6.7 Important14 21.2 23 24.5 16 35.6 Very important45 68.2 55 58.5 26 57.8 Helping others who are in difficulty0001 2.2 Not important7 10.4 6 6.4 3 6.7 Important18 26.9 33 35.1 15 33.3 Very important42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 10.4 10.4 10.4 10.4 10.4 | Being very well off financially | | | | | | |
| Somewhat important 6 9.1 13 13.8 3 6.7 Important 14 21.2 23 24.5 16 35.6 Very important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 18 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 12 14.6 14.4 15.4 16.6 | Not important | 1 | 1.5 | 3 | 3.2 | 0 | .0 |
| Important 14 21.2 23 24.5 16 35.6 Very important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 0 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 18 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 55 58.5 58.5 26 57.8 | Somewhat important | 6 | 9.1 | 13 | 13.8 | 3 | 6.7 |
| Very important 45 68.2 55 58.5 26 57.8 Helping others who are in difficulty 0 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 18 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 55 58.5 58.5 58.5 58.5 58.5 57.8 | Important | 14 | 21.2 | 23 | 24.5 | 16 | 35.6 |
| Helping others who are in difficulty Not important000012.2Somewhat important710.466.436.7Important1826.93335.11533.3Very important4262.75558.52657.8Writing original works like poems or novels1011111111 | Very important | 45 | 68.2 | 55 | 58.5 | 26 | 57.8 |
| Not important 0 0 0 0 1 2.2 Somewhat important 7 10.4 6 6.4 3 6.7 Important 18 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 10 11.6 11.6 11.6 11.6 11.6 | Helping others who are in difficulty | | | | | | |
| Somewhat important 7 10.4 6 6.4 3 6.7 Important 18 26.9 33 35.1 15 33.3 Very important 42 62.7 55 58.5 26 57.8 Writing original works like poems or novels 10 11.6 11.6 11.6 11.6 | Not important | 0 | 0 | 0 | 0 | 1 | 2.2 |
| Important1826.93335.11533.3Very important4262.75558.52657.8Writing original works like poems or novels1011.611.611.6 | Somewhat important | 7 | 10.4 | 6 | 6.4 | 3 | 6.7 |
| Very important4262.75558.52657.8Writing original works like poems or novels10111111 | Important | 18 | 26.9 | 33 | 35.1 | 15 | 33.3 |
| Writing original works like poems or novels | Very important | 42 | 62.7 | 55 | 58.5 | 26 | 57.8 |
| novels | Writing original works like poems or | | | | | | |
| | novels | | | | | | |
| Not important 29 44.6 41 44.1 22 48.9 | Not important | 29 | 44.6 | 41 | 44.1 | 22 | 48.9 |
| Somewhat important 15 23.1 25 26.9 14 31.1 | Somewhat important | 15 | 23.1 | 25 | 26.9 | 14 | 31.1 |
| Important 10 15.4 11 11.8 7 15.6 | Important | 10 | 15.4 | 11 | 11.8 | 7 | 15.6 |
| Very important 11 16.9 16 17.2 2 4.4 | Very important | 11 | 16.9 | 16 | 17.2 | 2 | 4.4 |

(continued)

Table 30 (continued)

| | Dra | aper | M | ain | Tut | wiler |
|---|-----|------|----|------|-----|-------|
| Variable | n | % | n | % | n | % |
| Creating artistic works | | | | | | |
| Not important | 17 | 25.8 | 23 | 24.7 | 13 | 28.9 |
| Somewhat important | 19 | 28.8 | 28 | 30.1 | 15 | 33.3 |
| Important | 13 | 19.7 | 17 | 18.3 | 9 | 20.0 |
| Very important | 17 | 25.8 | 25 | 26.9 | 8 | 17.8 |
| Participating in my community | | | | | | |
| Not important | 5 | 7.7 | 2 | 2.2 | 3 | 6.5 |
| Somewhat important | 8 | 12.3 | 8 | 8.6 | 13 | 28.3 |
| Important | 24 | 36.9 | 32 | 34.4 | 8 | 17.4 |
| Very important | 28 | 43.1 | 51 | 54.8 | 22 | 47.8 |
| Helping promote racial equality | | | | | | |
| Not important | 10 | 15.6 | 11 | 12.1 | 5 | 10.9 |
| Somewhat important | 19 | 29.7 | 18 | 19.8 | 15 | 32.6 |
| Important | 13 | 20.3 | 22 | 24.2 | 14 | 30.4 |
| Very important | 22 | 34.4 | 40 | 44 | 12 | 26.1 |
| Keeping up to date with political affairs | | | | | | |
| Not important | 17 | 26.6 | 18 | 19.8 | 9 | 20.0 |
| Somewhat important | 14 | 21.9 | 28 | 30.8 | 17 | 37.8 |
| Important | 22 | 34.4 | 23 | 25.3 | 6 | 13.3 |
| Very important | 11 | 17.2 | 22 | 24.2 | 13 | 28.9 |
| Becoming a community leader | | | | | | |
| Not important | 14 | 21.2 | 11 | 11.8 | 9 | 20.0 |
| Somewhat important | 13 | 19.7 | 14 | 15.1 | 9 | 20.0 |
| Important | 17 | 25.8 | 35 | 37.6 | 12 | 26.7 |
| Very important | 22 | 33.3 | 33 | 35.5 | 15 | 33.3 |
| Encouraging others to participate in | | | | | | |
| educational programs | | | | | | |
| Not important | 2 | 2.9 | 1 | 1.0 | 3 | 6.7 |
| Somewhat important | 3 | 4.3 | 5 | 5.2 | 5 | 11.1 |
| Important | 19 | 27.5 | 30 | 31.3 | 5 | 11.1 |
| Very important | 45 | 65.2 | 60 | 62.5 | 32 | 71.1 |

Students were asked whether and what kind of communication they would like to receive from ISTC following release. The four-point Likert scale offered responses of agree strongly, agree somewhat, disagree somewhat, and disagree strongly. Table 31 displays the responses of students by campus.

No students responded to receiving employment opportunities with strongly disagree. The total percentage of students who selected agree or strongly agree was almost unanimous, with 98% across the three campuses. Similarly, the total percentage of students who selected agree somewhat or agree strongly to wanting information about mentoring future students was over 86%. Lastly, over 90% of students across the three campuses agreed or strongly agreed they would like to receive future information about continuing education opportunities at other colleges.

Table 31

Descriptive Statistics by Campus of Communications Students Would Like to Receive from ISTC

| | Draper | | Main | | Tutwiler | |
|---------------------------------------|--------|------|------|------|----------|------|
| Variable | n | % | n | % | n | % |
| Employment opportunities | | | | | | |
| Disagree strongly | 0 | 0 | 0 | 0 | 0 | 0 |
| Disagree somewhat | 1 | 1.5 | 1 | 1.1 | 0 | 0 |
| Agree somewhat | 6 | 8.8 | 8 | 8.4 | 6 | 13.3 |
| Agree strongly | 61 | 89.7 | 86 | 90.5 | 39 | 86.7 |
| Opportunities for mentoring other | | | | | | |
| students | | | | | | |
| Disagree strongly | 2 | 3.1 | 2 | 2.2 | 2 | 4.5 |
| Disagree somewhat | 6 | 9.2 | 5 | 5.4 | 4 | 9.1 |
| Agree somewhat | 26 | 40.0 | 31 | 33.3 | 15 | 34.1 |
| Agree strongly | 31 | 47.7 | 55 | 59.1 | 23 | 52.3 |
| Continuing education opportunities at | | | | | | |
| other colleges | | | | | | |
| Disagree strongly | 1 | 1.5 | 2 | 2.1 | 2 | 4.5 |
| Disagree somewhat | 4 | 6.1 | 5 | 5.3 | 2 | 4.5 |
| Agree somewhat | 14 | 21.2 | 27 | 28.7 | 8 | 18.2 |
| Agree strongly | 47 | 71.2 | 60 | 63.8 | 32 | 72.7 |

Engagement Among Campuses

The suitability of principal components analysis (PCA) was assessed prior to analysis in order to ascertain anticipated engagement aspects of the ISEQ. Survey questions for the PCA were grouped based on response scale type. Inspection of the correlation matrix showed that all variables had at least one correlation coefficient greater than 0.3 which were reliable for the small sample size, as each factor had at least four loadings above 0.6 (Guadagnoli & Velicer, 1988). Individual Kaiser-Meyer-Olkin (KMO) measures were all 0.6 or above. The measures at the 0.6 value were considered mediocre, while 0.7 were considered middling, and 0.8 were considered meritorious (Kaiser & Rice, 1974).

The interpretation of the data was consistent with the anticipated course engagement aspects of the questionnaire, with strong loadings of academic challenge items on component one, knowledge and skill development items on component two, student engagement with instructors on component three, instructor validation items on component four, overall support items on component five, and social and community goals on component six.

The academic challenge construct was created by running a PCA with the subitems in research question six: "During the current school year, how much has your coursework emphasized the following?" The responses were measured by very often, often, sometimes, and never. The KMO for these factor loadings was .846. Bartlett's Test of Sphericity was statistically significant (p < .0005), indicating that the data was likely factorizable (Laerd Statistics, 2015).

The knowledge and skill development construct was created by running a PCA for ISEQ question seven: "How much has your experience at ISTC contributed to your knowledge, skills, and personal development in the following areas?" The response scale was very much, quite a bit, some, and very little. The KMO for these factor loadings was .768. Bartlett's Test of

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Sphericity was statistically significant (p < .0005), indicating that the data was likely factorizable (Laerd Statistics, 2015).

The construct of student engagement with instructors was created by running a PCA on ISEQ question five: "During your time in class at ISTC, how often have you done the following?" The responses were measured by very often, often, sometimes, and never. A Varimax orthogonal rotation was employed to aid interpretability. The KMO for these factor loadings was .829. Bartlett's Test of Sphericity was statistically significant (p < .0005), indicating that the data was likely factorizable (Laerd Statistics, 2015).

The instructor validation construct was created by running a PCA on ISEQ question eight: "Since entering college at ISTC, how often have you felt" about the following. The responses were measured by very often, often, sometimes, and never. The KMO for these factor loadings was .812. Bartlett's Test of Sphericity was statistically significant (p < .05), indicating that the data was likely factorizable (Laerd Statistics, 2015).

The overall support construct was created by running a PCA on ISEQ question 11: "Please indicate how supportive the following groups are of helping you with your academic success." The responses were measured on a scale of extremely supportive, quite a bit, somewhat, and not very. The KMO for these factor loadings was .777. Bartlett's Test of Sphericity was statistically significant (p < .05), indicating that the data was likely factorizable (Laerd Statistics, 2015).

The social and community goals construct was created by running a PCA on ISEQ question 20: "Indicate the importance to you personally of each of the following." The response scale measured very important, important, somewhat important, and not important. A Varimax orthogonal rotation was employed to aid interpretability. The KMO for these factor loadings

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was .832. Bartlett's Test of Sphericity was statistically significant (p < .0005), indicating that the data was likely factorizable (Laerd Statistics, 2015).

Participants were given a score for each construct. Their construct scores were the mean of each Likert scale response within a given construct. For example, a participant who selected "very often" (represented by 4 on the Likert scale) for the first item (applying theories or concepts to practical problems in new situations) and "often" (represented by 3 on the Likert scale) for the second item (analyzing the basic elements of an idea, experience, or theory) would have an academic challenge construct score of 3.5 ([4 + 3] / 2) items = 3.5 construct mean score).

Academic Challenge

Inferential statics were utilized to answer research question two: "To what extent is there statistically significant difference in academic challenge by campus." The academic challenge construct was created by the PCA.

A one-way analysis of variance (ANOVA) with post hoc testing was conducted to determine if academic challenge was different for individuals between campuses. The students were classified by the campuses: Draper (n = 63), Main (n = 95), and Tutwiler (n = 47). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by visual interpretation of the Q–Q plots. A Shapiro-Wilkes test of normality was not utilized, as the sample size was over 50 participants. There was homogeneity of variances as assessed by Levene's test of homogeneity of variances (p = .409). Data are presented as mean \pm standard deviation in Table 32.

| | п | М | SD | |
|----------|-----|--------|--------|--|
| Draper | 63 | 2.8190 | .68412 | |
| Main | 95 | 2.9326 | .72500 | |
| Tutwiler | 47 | 3.2043 | .79289 | |
| Total | 205 | 2.9600 | .73921 | |

Mean Levels of Academic Challenge by Campus

Table 33 presents the results of the one-way ANOVA. Academic challenge was statistically significantly between different campuses, F(2, 202) = 3.883, p < .05. The academic challenge score was statistically higher from Draper campus (M = 2.8190, SD = 0.68412), to the Tutwiler campus (M = 3.2043, SD = 0.73289). Tukey's post hoc analysis revealed a mean increase of 0.38521, 95% CI [0.0535, 0.7170], which was statistically significant (p = .05), but no other group differences were statistically significant. The effect size, $\eta^2 = .037$, represented a small effect size (Witte & Witte, 2010).

Table 33

One-Way Analysis of Variance of Academic Challenge by Campus

| | df | SS | MS | F | Р | |
|----------------|-----|---------|-------|-------|------|--|
| Between groups | 2 | 4.127 | 2.063 | 3.883 | .022 | |
| Within groups | 202 | 107.345 | .531 | | | |
| Total | 204 | 111.472 | | | | |

Knowledge and Skill Development

A one-way ANOVA was conducted to answer research question three: to what extent is there a statistically significant difference in knowledge and skill development by campus? The students were classified by location: Draper (n = 63), Main (n = 99), and Tutwiler (n = 47). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by visual interpretation of the Q–Q plots. A Shapiro-Wilkes test of normality was not utilized, as the sample size was over 50 participants. There was homogeneity of variances, as assessed by Levene's test of homogeneity of variances (p = .862). Data are presented as mean \pm standard deviation in Table 34.

Table 34

Mean Levels of Knowledge and Skill Development by Campus

| | N | M | SD | |
|----------|-----|--------|--------|--|
| Draper | 68 | 3.0265 | .74985 | |
| Main | 99 | 3.0869 | .71152 | |
| Tutwiler | 47 | 3.3106 | .74344 | |
| Total | 214 | 3.1168 | .73516 | |
| | | | | |

There were no statistically significant differences in knowledge and skill development between

campuses, F(2,211) = 2.255, p = .107 as shown in table 35.

Table 35

One-Way ANOVA of Levels of Knowledge and Skill Development by Campus

| | df | SS | MS | F | р |
|----------------|----------|-------|-------|-------|------|
| Between groups | 2 | 2.409 | 1.205 | 2.255 | .107 |
| Within groups | 112.0710 | 211 | .534 | | |
| Total | 115.119 | 213 | | | |

Instructor Validation Among Campuses

Inferential statistics were utilized to answer research question four: To what extent are there statistically significant differences in instructor validation among campuses. This construct was identified through PCA.

A one-way ANOVA was conducted to determine if instructor validation was different for individuals between campuses. The students were classified by the campuses: Draper (n = 69), Main (n = 96), and Tutwiler (n = 47). There were outliers, as assessed by boxplot; data were not normally distributed for Draper and Tutwiler. There was homogeneity of variances, as assessed by Levene's test of homogeneity of variances (p = .104). Data are presented as mean \pm standard

deviation in Table 36.

Table 36

Mean Levels of Instructor Validation by Campus

| | N | M | SD | |
|----------|-----|--------|--------|--|
| Draper | 69 | 3.4783 | .54527 | |
| Main | 96 | 3.2917 | .66458 | |
| Tutwiler | 47 | 3.5372 | .04320 | |
| Total | 212 | 3.4068 | .62897 | |

Faculty validation for individuals between campuses was statistically significant between campuses, F(2, 209) = 3.126, p = .046. The results of the one-way ANOVA are presented in Table 37.

Table 37

One-Way ANOVA of Levels for Instructor Validation Between Campuses

| | df | SS | MS | F | р | |
|----------------|------|--------|-------|------|------|--|
| Between groups | 2 | 2.425 | 1.212 | .388 | .046 | |
| Within groups | 209 | 81.048 | .388 | | | |
| Total | 2011 | 83.473 | | | | |

Tukey's post hoc did not reveal statistical significance between groups.

Student Engagement with Instructors Among Campuses

A one-way ANOVA was conducted to determine if student engagement with instructors was different for individuals between campuses. The students were classified by the campuses: Draper (n = 67), Main (n = 98), and Tutwiler (n = 45). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by visual interpretation of the Q-Q plots. A Shapiro-Wilkes test of normality was not utilized, as the sample size was over 50 participants. There was homogeneity of variances, as assessed by Levene's test of homogeneity of variances (p = .265). Data are presented as mean \pm standard deviation in table 38.

Table 38

Mean Levels of Engagement With Instructors by Campus

| N | M | SD | |
|-----|----------------------------|--|---|
| 67 | 3.0933 | .67256 | |
| 98 | 2.7832 | .71673 | |
| 45 | 3.1111 | .80756 | |
| 210 | 2.9524 | .73741 | |
| | N 67 98 45 210 | N M 67 3.0933 98 2.7832 45 3.1111 210 2.9524 | N M SD 67 3.0933 .67256 98 2.7832 .71673 45 3.1111 .80756 210 2.9524 .73741 |

The one-way ANOVA yielded statistically significant differences as presented in Table 39. Student engagement with instructors was statistically significantly different between different campuses, F(2, 207) = 5.033, p < .05. There was a difference in student engagement with instructors between Main (M = 2.7832, SD = 0.716) and Draper (M = 3.093, SD = 0.672). Tukey's post hoc analysis revealed a mean difference of 0.3101, 95% CI [0.039, 0.5809], which was statistically significant (p = .05). There was a difference in student engagement with instructors from Main campus (M = 2.7832, SD = 0.716) to Tutwiler (M = 3.111, SD = .80756). Tukey's post hoc analysis revealed a mean difference of .32795, 95% CI [0.0204, 0.6355], which was statistically significant (p = .05), but no other group differences were statistically significant. The effect size, $\eta^2 = .046$, represented a small effect size (Field, 2018).

Table 39

One-Way ANOVA of Levels of Engagement With Instructors Between Campuses

| | df | SS | MS | F | р | |
|----------------|-----|---------|-------|-------|------|--|
| Between groups | 2 | 5.270 | 2.635 | 5.033 | .007 | |
| Within groups | 207 | 108.379 | .524 | | | |
| Total | 209 | 113.649 | | | | |

Student Satisfaction

Research question six asked: what are the background characteristics, academic engagement, and instructor engagement that predict students' overall satisfaction at this college? To answer this question, a hierarchical multiple regression was conducted to predict students' overall satisfaction from background characteristics (age, sex, race — White or non-White, highest level of education, years left in sentence); pursuing program because the skills learned will lead to good wages; course learning (knowledge and skill development and academic challenge); student engagement with instructors; and instructor validation. The results are displayed in tables 40 and 41.

The assumption of linearity was confirmed through assessment of the partial regression plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.852. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity, as assessed by tolerance values and variance inflation factors. The assumption of normality was confirmed through assessment of the Q—Q plot. Table 43 presents the data from the hierarchical regression. There were several studentized deleted residuals ±3 standard deviations with one leverage point slightly greater than 0.2, and no values for Cook's distance above 1. The researcher elected to keep them in the data set for analysis.

Background characteristics used in block 1 to predict student overall satisfaction was not statistically significant with R² of .043, F(5, 157) = 1.424, p = .22. There were no statistically significant variables that were predictive of student overall satisfaction.

The addition of pursing the program because the skills learned will lead to good wages in block 2 was not statistically significant, with minimal increase in R^2 of .009, F(1, 156) = 1.673, p

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= .19. There were no statistically significant variables in block 2 that were predictive of student overall satisfaction.

The addition of academic challenge and knowledge and skill development (block 3) to the prediction of student overall experience led to a statistically significant increase in R^2 of .114, F(2, 154) = 9.558, p = .001. Knowledge and skill development was significantly associated with predicting students' overall experience .192 (p = .008), controlling for all other variables in the model. No other variables in block 3 were significant.

The full model of age, sex, race, highest education level, years left in sentence, pursuing because the skills learned will lead to good wages, academic knowledge, knowledge and skill development, student engagement with instructors, instructor validation, and overall support to predict student overall experience (block 4) was statistically significant $R^2 = .342$, F(3, 151 = 14.020), p < .0005) controlling for all other variables in the model. The adjusted $R^2 = .294$. Instructor validation was significantly associated with predicting students' experience .310 (p = .001) controlling for all other variables in the model. Overall support was also significantly associated with predicting overall student experience .287 (p = .001), controlling for all other variables in the model.

| | Student overall satisfaction | | | | | | | | |
|--|------------------------------|------|---------|------|-------------------|------|-------------------|------|--|
| | Bloc | k 1 | Block 2 | | Bloc | k 3 | Block 4 | | |
| Variable | В | β | В | β | В | β | В | β | |
| Constant | 3.59 | | 3.01 | | 2.32 ^b | | 1.53 ª | | |
| Age | .029 | .087 | .023 | .068 | .011 | .032 | .007 | .021 | |
| Sex | .116 | .085 | .098 | .072 | .026 | .019 | 048 | 035 | |
| Race (White/non- White | 107 | 093 | 119 | 104 | 140 | 122 | 156 | 136 | |
| Highest education | 061 | 159 | 052 | 135 | 055 | 143 | 021 | 056 | |
| Years left in sentence | .007 | .029 | .008 | .022 | .017 | .048 | .015 | .041 | |
| Good wages | | | .159 | .104 | .111 | .073 | .013 | .008 | |
| Academic | | | | | .113 | .144 | 024 | 031 | |
| Knowledge and skill development | | | | | .192 ^b | .236 | .016 | .019 | |
| Overall | | | | | | | .256 ^b | .287 | |
| support Student | | | | | | | .064 | .079 | |
| engagement with faculty Instructor validation | | | | | | | .310 ^b | .311 | |
| | | | | | | | | | |
| R^2 | .043 | | .054 | | .158 | | .342 | | |
| F | 1.424 | | 1.470 | | 3.621 | | 7.125 | | |
| ΔR^2 | .043 | | .010 | | .105 | | .183 | | |
| ΔF | 1.424 | | 1.673 | | 9.558 | | 14.020 | | |

Hierarchical Multiple Regression Analysis for Predicting Student Overall Satisfaction

Note. n = 163. ^a p < .001 ^b p < .05

The following table presents the summary of the statistical analysis utilized for the hierarchical regression of the variables that predicted students' overall experience at ISTC.

Summary of Hierarchical Multiple Regression Analysis for Overall Student Satisfaction

| | | | | | | | Adjusted |
|-----------------------------------|------|--------|------|-------|------|-------|----------|
| Variable | В | SE_B | ß | t | р | R^2 | R^2 |
| Background characteristics block1 | | | | | | .043 | .013 |
| Age | .029 | .029 | .087 | 1.00 | .315 | | |
| Sex | .116 | .118 | .085 | .980 | .328 | | |
| Race (White/non-White) | 107 | .101 | 093 | -1.06 | .288 | | |
| Highest education | 061 | .032 | 159 | -1.89 | .060 | | |
| Years left in sentence | .007 | .029 | .019 | .230 | .818 | | |
| With good wages block 2 | | | | | | .054 | .017 |
| Age | .023 | .030 | .068 | .778 | .438 | | |
| Sex | .098 | .119 | .072 | .828 | .409 | | |
| Race (White/non-White) | 119 | .101 | 104 | -1.18 | .238 | | |
| Highest education | 052 | .033 | 135 | -1.57 | .118 | | |
| Years left in sentence | .008 | .029 | .022 | .275 | .783 | | |
| Pursuing because it will lead to | .159 | .123 | .104 | 1.29 | .198 | | |
| good wages | | | | | | | |
| With course learning block 3 | | | | | | .158 | .115 |
| Age | .011 | .028 | .032 | .385 | .701 | | |
| Sex | .026 | .114 | .019 | .228 | .820 | | |
| Race (White/non-White) | 140 | .096 | 122 | -1.46 | .145 | | |
| Highest education | 055 | .032 | 143 | -1.72 | .087 | | |
| Years left in sentence | .017 | .028 | .048 | .625 | .533 | | |
| Pursuing because it will lead to | .111 | .117 | .073 | .945 | .346 | | |
| good wages | | | | | | | |
| Academic challenge | .113 | .069 | .144 | 1.62 | .105 | | |
| Knowledge and skill development | .192 | .072 | .236 | 2.67 | .008 | | |
| With all variables block 4 | | | | | | .342 | .294 |
| Age | .007 | .026 | .021 | .281 | .779 | | |
| Sex | 048 | .104 | 035 | 460 | .646 | | |
| Race (White/non-White) | 156 | .086 | 136 | -1.81 | .072 | | |
| Highest education | 021 | .029 | 056 | 741 | .460 | | |
| Years left in sentence | .015 | .025 | .041 | .594 | .553 | | |
| Pursuing because it will lead to | .013 | .106 | .008 | .118 | .906 | | |
| good wages | | | | | | | |
| Academic challenge | 024 | .067 | 031 | 356 | .723 | | |
| Knowledge and skill development | .016 | .070 | .019 | .227 | .821 | | |
| Overall support | .256 | .073 | .287 | 3.49 | .001 | | |
| Student and instructor engagement | .064 | .067 | .079 | .951 | .343 | | |
| Instructor validation | .310 | .095 | .311 | 3.27 | .001 | | |

Courses Inspired Students to Think in New Ways

Research question six asked: what are the background characteristics, academic engagement, and instructor engagement that predict students' perception of courses inspiring them to think in new ways? To answer this question, a hierarchical multiple regression was conducted to predict students' perception of being inspired to think in new ways from background characteristics (age, sex, race, highest level of education, years left in sentence), pursuing program because it was a dream to do something in the field, knowledge and skill development, academic challenge, engagement with instructors, frequency of receiving feedback from instructors, belief that contributions were valued in class, and feeling encouraged to ask questions.

The assumption of linearity was confirmed through assessment of the partial regression plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.573. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity, as assessed by tolerance values and variance inflation factors. The assumption of normality was confirmed through assessment of the Q—Q plot. Table 42 presents the data. There were two studentized deleted residuals ± 3 standard deviations which also had leverage points slightly greater than 0.2, and no values for Cook's distance above 1. The researcher elected to keep them in the data set for analysis.

Background characteristics used in block 1 utilized to predict students being inspired to think in new ways were not statistically significant, with R² of .045 F(5, 153) = 1.434, p = .22. However, race (non-White) was significantly associated with inspiring students to think in new ways, as non-White students had .271 (p = .029) higher levels with being inspired to think in

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new ways, controlling for all other variables in the model. There were no other statistically significant predictors in block 1.

The addition of it being a dream to pursue work in this field (block 2) to the overall prediction of students being inspired to think in new ways was not statistically significant, with a minimal increase R² of .054, F(1, 152) = 1.481, p = .20. Again, race was significantly associated with inspiring students to think in new ways, as non-White students had .249 (p = .046) higher agreement levels with being inspired to think in new ways. There were no statistically significant predictors in block 2.

The addition of academic challenge and knowledge and skill development (block 3) to the model led to a statistically significant increase in R² of .300, F(2,150) = 26.300, p < .001), controlling for all other variables in the model. Knowledge and skill development was significantly associated with predicting students' overall experience .322 (p < .001), controlling for all other variables in the model. Academic challenge was significantly associated with predicting students' overall experience .281 (p < .001), controlling for all other variables in the model. No other variables in block 3 were significant.

The full model of age, sex, race, highest education level, years left in sentence, pursuing program because student dreamed of doing something in this field, academic challenge, knowledge and skill development, engagement with instructors, frequency of receiving feedback from instructors, belief that contributions were valued in class, and feeling encouraged to ask questions to predict students being inspired to think in new ways (block 4) was statistically significant $R^2 = .371$, F(4, 146 = 4.160), p = .003. The adjusted $R^2 = .320$. Again, race was significantly associated with inspiring students to think in new ways, as non-White students had .206 (p = .049) higher agreement levels with being inspired to think in new ways. Academic

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challenge was significantly associated with predicting students' being inspired to think in new ways .178 (p = .032). Knowledge and skill development was also significantly associated with predicting students being inspired to think in new ways .218 (p = .012). Frequency that instructors gave feedback was significantly associated with predicting students' being inspired to think in new ways .272 (p = .007).

Hierarchical Multiple Regression Analysis for Predicting Courses Inspired Students to Think in New Ways

| Courses inspired students to think in new ways | | | | | | | | |
|--|--------|------|---------|------|--------------------|------|--------------------|------|
| | Bloc | k 1 | Block 2 | | Bloc | k 3 | Block 4 | |
| Variable | В | β | В | β | В | β | В | β |
| | 3.386 | | 3.198 | | 1.708 ^a | | 1.179 ^a | |
| Constant | | | | | | | | |
| | .020 | .048 | .010 | .025 | .007 | .018 | .006 | .014 |
| Age | 105 | 110 | 1 = 0 | 100 | 0.0.0 | | 0.60 | |
| Sex | .185 | .113 | .179 | .109 | .036 | .022 | .063 | .039 |
| Race | .271 0 | .189 | .249 ° | .174 | .208 | .145 | .206 0 | .143 |
| Highest | 057 | 090 | 037 | 058 | 087 | 138 | 051 | 080 |
| education | 026 | 001 | 020 | 0.00 | 020 | 046 | 010 | 044 |
| Years left in | 036 | 081 | 030 | 068 | 020 | 046 | 019 | 044 |
| sentence | | | | | | | | |
| Draam to | | | 072 | 102 | 016 | 022 | 022 | 045 |
| | | | .072 | 105 | 010 | 025 | 052 | 043 |
| pursue | | | | | | | | |
| Academic | | | | | 281 b | 280 | 178 ^b | 18/ |
| challenge | | | | | .201 | .20) | .170 | .104 |
| Knowledge | | | | | 322 b | 315 | 218 ^b | 214 |
| and skill | | | | | | .515 | .210 | .211 |
| development | | | | | | | | |
| development | | | | | | | | |
| Student | | | | | | | .091 | .089 |
| engagement | | | | | | | .071 | .007 |
| with faculty | | | | | | | | |
| Instructors | | | | | | | .272 ^b | .271 |
| gave | | | | | | | | , 1 |
| feedback | | | | | | | | |
| Contributions | | | | | | | .095 | .098 |
| are valued in | | | | | | | | |
| class | | | | | | | | |
| Encouraged | | | | | | | 110 | 108 |
| to ask | | | | | | | | |
| questions | | | | | | | | |
| | | | | | | | | |
| R^2 | .045 | | .054 | | .300 | | .371 | |
| F | 1.434 | | 1.446 | | 8.020 | | 7.184 | |
| ΔR^2 | .045 | | .009 | | .246 | | .072 | |
| ΔF | 1.434 | | 1.481 | | 26.300 | | 4.160 | |

 $\overline{Note. N} = 159. {}^{a}p < .001 {}^{b}p < .05$

The following table presents the summary of the statistical analysis utilized for the hierarchical

regression of the variables that predict students to think in new ways.

Table 43

Summary of Hierarchical Multiple Regression Analysis for Course Inspired Students to Think in New Ways

| | | | | | | | Adjusted |
|------------------------------------|------|--------|------|------|------|-------|----------|
| Variable | В | SE_B | ß | t | р | R^2 | R^2 |
| Background Characteristics block1 | | | | | | .045 | .014 |
| Age | .20 | .036 | .048 | .563 | .574 | | |
| Sex | .185 | .141 | .113 | 1.31 | .192 | | |
| Race (White/non-White) | .271 | .123 | .189 | 2.21 | .029 | | |
| Highest education | 06 | .053 | 09 | -1.1 | .284 | | |
| Years left in sentence | 04 | .036 | 09 | 98 | .327 | | |
| With pursuing dream block 2 | | | | | | .054 | .017 |
| Age | .010 | .037 | .025 | .283 | .777 | | |
| Sex | .179 | .141 | .109 | 1.26 | .206 | | |
| Race (White/non-White) | .249 | .124 | .174 | 2.01 | .046 | | |
| Highest education | 04 | .056 | 06 | 66 | .511 | | |
| Years left in sentence | 03 | .037 | 07 | 82 | .414 | | |
| Pursuing because it is a dream | .072 | .059 | .103 | 1.22 | .226 | | |
| With course learning block 3 | | | | | | .300 | .262 |
| Age | .007 | .032 | .018 | .233 | .816 | | |
| Sex | .036 | .124 | .022 | .289 | .773 | | |
| Race (White/non-White) | .208 | .108 | .145 | 1.93 | .055 | | |
| Highest education | 09 | .049 | 12 | -1.8 | .080 | | |
| Years left in sentence | 02 | .032 | 05 | 64 | .523 | | |
| Pursuing because it is a dream | 02 | .053 | 02 | 30 | .764 | | |
| Academic challenge | .281 | .079 | .289 | 3.57 | .000 | | |
| Knowledge and skill development | .322 | .083 | .315 | 3.85 | .000 | | |
| With all variables block 4 | | | | | | .371 | .320 |
| Age | .006 | .031 | .014 | .185 | .854 | | |
| Sex | .063 | .122 | .039 | .516 | .606 | | |
| Race (White/non-White) | .206 | .103 | .143 | 1.99 | .049 | | |
| Highest education | 05 | .048 | 08 | -1.0 | .298 | | |
| Years left in sentence | 02 | .031 | 04 | 63 | .533 | | |
| Pursuing because it is a dream | 03 | .052 | 05 | 62 | .540 | | |
| Academic challenge | .178 | .082 | .184 | 2.17 | .032 | | |
| Knowledge and skill development | .218 | .086 | .214 | 2.53 | .012 | | |
| Student and instructor engagement | .091 | .086 | .089 | 1.06 | .292 | | |
| Instructors gave feedback | .272 | .099 | .271 | 2.74 | .007 | | |
| Contributions were valued in class | .095 | .092 | .098 | 1.04 | .301 | | |
| Encouraged to ask questions | 11 | .094 | 11 | -1.6 | .243 | | |

Summary

This chapter presented the findings from the ISEQ. Research questions one through six provided the basis for the statistical analysis that was conducted on the data. Each test followed the research question, ranging from descriptive and inferential analysis. The interpretation of the analysis will be discussed in chapter five.

CHAPTER V:

DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

Overview

This chapter presents the findings of the study and a discussion of the results. The chapter is organized by research questions one through seven, with the results and discussion following the respective research question. The implications for practice and policy follow the discussion. The chapter concludes with recommendations for future study.

Summary of Study

Chapter one introduced the purpose of the study: to explore how incarcerated students engage in CTE offered through a technical college by utilizing the ISEQ to systematically collect data in the areas of program engagement, academic engagement, and student aspirations. The study investigated if differences existed among students who completed the ISEQ at three different campus locations operated by ISTC. The chapter also introduced the problem that research on student success in postsecondary education largely concentrates on outcome measurements of lower recidivism rates and job obtainment without regard for the impact of incarcerated student engagement. This research utilized Astin's (1984) theory of student involvement to explore how engagement impacts student success and aspirations. This guided the formation of the survey instrument influenced by CCSSE and provided the framework for the statistical analysis. The conceptual model for the study applied Astin and antonio's (2012) IEO model to determine if incarcerated students' background characteristics and academic engagement experiences predicted two different outcomes: (a) overall satisfaction and (b) students' perception of courses inspiring them to think in new ways.

Chapter two provided an overview of literature relevant to the topic, including an overview of the history of education in prison. The chapter also presented evaluation studies of postsecondary education offered to incarcerated students with emphasis on reduced recidivism as the dominant measurement of success. Other sections included the emerging field of higher education in prison along with qualitative and quantitative studies of incarcerated students' participation in prison education programs. The chapter concluded with an examination of student engagement theories.

Chapter three discussed the rationale for the research design. ISTC was selected as the study site, and students across three campuses participated in the survey. The chapter provided an overview of the statistical analysis conducted to learn more about how incarcerated students engaged in CTE courses offered through a technical college. The limitations of the study were also described.

The results of the statistical analysis were explored in chapter four. Each research question was presented with an explanation of the corresponding statistical analysis. Descriptive statistics provided insight into the background characteristics of students, program engagement, academic engagement, reasons and goals, and factors of personal importance of students. Employing ANOVAs, differences among campuses were examined utilizing the factors created through the PCA of academic challenge, knowledge and skill development, instructor validation, and student engagement with instructors. Hierarchical multiple regressions were conducted to

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determine if certain background characteristics predicted students' overall satisfaction and if they perceived the courses they participated in at ISTC inspired them to think in new ways.

The final chapter discusses the findings of the study. Each research question provides the impetus for the answer that is discussed. Conclusions are examined and suggestions for future research are provided.

Discussion of Findings

Research Question One

What are the background characteristics, program engagement, academic engagement, reasons and goals, and factors of personal importance of incarcerated students enrolled in CTE programs at ISTC?

This research question explored the background characteristics of students who participated in the survey. Since this was an exploratory study using the ISEQ for the first time, this question was important to not only learn about the students' background characteristics but also study the responses to the ISEQ in the areas of program engagement, academic engagement, and the reasons and goals for students pursuing CTE education. This information allowed the researcher to better understand commonalities to the group and characteristics that may suggest who enrolls and succeeds in CTE courses. Participants were enrolled in CTE classes for spring 2020 through ISTC. The data were self-reported by the students. The total responses by question varied, as students were informed they could skip any question they did not want to answer.

Background Characteristics

Two of the three campuses where the survey was administered were comprised exclusively of male students (n = 167, 78%). Only one campus, Tutwiler, provided CTE courses to women (n = 47, 22%). There was no clear majority of the age range of the students enrolled in CTE courses. More student participants identified with the age range of 35 to 40 (n = 49, 23%). Other age ranges were similar in composition, with 17% (n = 36) identifying in the 30 to 34 group, 17.9% (n = 38) identifying in the 41 to 49 group and 16% (n = 34) identifying in the 50 to 64 group. According to ADOC, the average age of an incarcerated individual is 40 years old (ADOC Annual Report, 2018). The self-reported age of students is consistent with the average age of Alabama's overall incarcerated population.

The self-reported race of students was primarily limited to two categories. White and non-Hispanic students represented 45.5% (n = 97) of the participants, and the students who selected Black, African American and non-Hispanic represented 42.7% (n = 91) of the participants. Of the female respondents, 75% identified as White. ADOC (2018) reported the custody population, meaning those who were under the day-to-day supervision of ADOC, as 56% Black and 43% White. The students self-reported race/ethnicity at ISTC differed from the state population of incarcerated individuals.

The highest level of education self-reported by students (50%) was high school completion or GED. One of ISTC's preferred admission requirements is for students to have a high school diploma or GED. They do make exceptions for students under the Ability to Benefit Criteria that allows students who score satisfactory on the ACCUPLACER or Test of Adult Basic Education to enroll. This is a probable explanation for 20% of students selecting "other" as their highest level of education. Very few students identified having education above the high school level. Only 2.3% of the respondents had an associate degree, and 3.3% had a bachelor's degree. Participants enrolled in a CTE program are above the state's average education level of incarcerated individuals, reported as 10th grade (ADOC, 2018).

The ISEQ also asked respondents about parents' highest levels of education. While the data were not utilized for further analysis, the frequencies revealed this to be similar among all students. Respondents reported less than 10% of parents having a bachelor's degree or above. For additional administration of the ISEQ, this question could be removed.

The research team discovered that the questions regarding original sentence and years left to serve were confusing to many students, who asked questions seeking clarification about these questions throughout the administration of the survey. However, the majority of students, 61%, reported their original court ordered sentence was 11 or more years. This was consistent across the three campus locations. Around 50% of students had two or less years left to serve, which could be indicative of student motivation and goals for pursuing classes at ISTC.

Program Engagement

Students at Draper, Main, and Tutwiler did not have access to the same CTE programs, as each campus had different course offerings. Welding was offered at all three campuses and had the highest number of students enrolled in the program (n = 48, 21%). HVAC had the second highest enrollment and was offered at Draper and Main. These numbers could be reflective of the job market in Alabama, as Welding and HVAC are two technical skills that are in high demand. It was not surprising to learn that almost all students (99%) selected the program that they were enrolled in because they believed what they learned would lead to good wages following release. However, almost two out of three students (64%) elected the program of study because it was something they dreamed of pursuing. This warrants further study to better understand if students

developed this dream prior to entering a correctional facility, and whether this stemmed from conversations with other students in the camp or ISTC personnel who recruited students within the camps.

Students participants in the study were all enrolled in CTE short-term or long-term certificate programs. However, the student handbook recognizes that an associate degree in applied technology (AAT) is available in HVAC at Main and Draper, while Tutwiler offers an AAT in office administration (ISTC College Catalog, 2019). In addition to seeking information about the current trends in CTE enrollment, the survey explored if students had an interest in pursuing other courses not currently part of the curriculum. Students responded that they would be interested in most of the courses, but there was more interest in business-related classes such as finance and business management.

Academic Engagement

Alexander Astin's (1984) theory of student involvement emphasized that students who were more engaged in the academic setting experienced more personal growth and development. Similarly, CSSEE, NSSE, and others (Pascarella & Terenzini, 2005; Tinto 1993) explored aspects of student engagement from active learning to engagement with faculty. Many of the questions in the academic engagement section of the ISEQ sought to understand if incarcerated students participated in engagement as described above.

In the classroom, students' personal engagement was similar at Draper and Main. Tutwiler students responded more favorably regarding the levels at which they engaged. For example, 62% of Tutwiler students selected very often to asking questions in class, while 39% of Draper students and 47% of Main students selected very often.

The themes of human capital, social capital, knowledge, and job training from Champion and Noble's (2016) theory of change are exemplified throughout a series of questions related to the frequency that the college contributed to the student's personal development. Over half of the students at the three campuses expressed high levels of learning in speaking and writing clearly. Across the three campuses, two-thirds of students indicated that they very much agreed they were acquiring job-related knowledge and skills.

Another factor for measuring student engagement is relative to student and instructor interaction (Astin, 1984). An indicator in student engagement is the positive interactions students have with instructors. Similar to CCSSE's student-faculty interaction benchmark, the ISEQ constructs of student interaction with instructors and instructor validation were designed to examine student interaction with instructors to understand if this had a connection with academic standing. Participants most often selected survey responses that reflected positive interactions with instructors by discussing their career plans, grades, ideas, and the feedback they received. At Draper and Tutwiler, the response of often to very often exceeded 50% for most questions about this topic. At Main campus, the percentage of responses of often to very often for questions related to the frequency they engaged in certain activities in class were similar to the responses at Draper and Tutwiler; however, more the response of sometimes was great at Main than at the other two campuses.. One plausible explanation for this could be that there was a larger sample of student participants at Main campus providing greater variation in responses. During the survey administration, the researcher observed differences in campus culture, which may also serve as a plausible explanation for the differences. As previously mentioned, Main campus is home to most of the ISTC administrators. Thus, this could create a culture that is less conducive to informal interactions between students and instructors.

Students self-reported high levels of achievement, with over 81% of students reporting a GPA of B or above. For future drafts of the ISEQ, the response options will be changed to allow for numerical listings instead of letter listings. While GPA was not analyzed outside of descriptive statistics, it is plausible that that this data could indicate higher levels of student engagement.

Reasons and Goals

The majority of students enrolled in CTE courses at all campuses had a primary goal of completing a certificate program. This was not surprising, as the students were enrolled in certificate programs. However, obtaining an associate degree was a primary goal for half of the respondents at Draper and a secondary goal for less than half of students at Tutwiler and Main.

Student responses to transferring to a two- or four-year college were relatively evenly distributed between primary goal, secondary goal, and not a goal, with no clear majority. Research suggests that transferability of credit is often problematic for incarcerated students (Castro & Zamini-Gallaher, 2018; Runnell, 2016). One plausible reason for this could be that students did not know about possibilities of transferring to a two- or four-year college. All students who participated in the survey were seeking certificates and not the AAT degree. This could be explored further with students to learn if they have had conversations with student services personnel about their educational options and gain an understanding of why students do not seek the AAT. Incarcerated students also face the challenge of being transferred to different correctional facilities throughout their sentence, so they might not retain access to the same CTE program they were enrolled in.

Obtaining or updating job-related skills was a primary goal for over 80% of students. This is consistent with previous research that suggests incarcerated students are interested in

vocational programs to enhance their job marketability following release (Gorgol & Sponslor, 2011; Runnell, 2016; Tewksbury & Stengel, 2006). Self-improvement and personal enjoyment were also reasons and goals for pursuing CTE programs, as almost 90% of students listed this as a primary goal. This response is aligned with current literature that values a more humanistic approach to providing higher education in prison, as it veers away from focusing on job-readiness as the only purpose for educating incarcerated students (Castro & Gould, 2018; Frank, Olmstead, and Pigg, 2013; Lewen, 2014; Tewksbury & Stengel, 2006).

Personal Importance

Students' responses to questions about items that were important to them varied by campus. Main and Draper respondents thought becoming successful in a business of their own was very important (73.5% and 72.2%). Tutwiler students (56.5%) still thought this was very important, but not as important as the students who responded on the other two campuses. Raising a family was very important to 3 out of 4 respondents at each campus (79.1% at Draper, 75.5% at Main, 84.4% at Tutwiler). Students did not find it as important to engage in creative course offerings like writing original works or creating art. Over 60% of students agreed that it was very important to encourage others to participate in educational programs.

Research Question Two

To what extent is there a statistically significant difference in academic challenge by campus?

CCSSE defines academic challenge as "challenging intellectual and creative work that is central to student learning and collegiate quality" (CCSSE, 2020b.). Like CCSSE, the ISEQ sought to measure the academic rigor of the coursework and how it emphasized certain mental activities. Some of these activities included applying theories or concepts to practical problems

in new situations, memorizing facts in order to repeat them, and making judgments about the value of information.

The findings for this question indicated differences among campuses. There was a statistically significant difference between Draper and Tutwiler. Students at Tutwiler reported a higher level of academic challenge than students at Draper. This suggests that the coursework at Tutwiler requires more rigorous study; another plausible explanation could be that Tutwiler students have access to CTE programs that emphasize more academic challenge, encompassing factors such as applying theory to solve problems or analyzing information to make important judgments. Another potential explanation for this could be that the students exert different levels of effort in academic activities (Astin, 1984). Essentially, the more effort a student puts into the work, then the more they will benefit from the experience. Female students did report having higher GPAs than male students, which could also be a plausible explanation for the differences between campuses. Another factor that may contribute to the differences could be the campus environment. The culture of the education setting may vary based on the instructor and staff culture. The focus of this study was based on students' engagement and experiences and did not collect data on instructors and staff.

Research Question Three

To what extent is there a statistically significant difference in knowledge and skill development by campus?

There were no statistical differences between campuses for knowledge and skill development. These findings suggest that students at each of the campus locations have similar perceptions of how their experience at ISTC contributed to their skills and knowledge development. These skills were both related to those needed for acquiring a job as well as

developing personal skills such as speaking and writing clearly. It is not surprising that there was no significant difference between campuses. A plausible explanation for this could be the highest level of education students had achieved prior to entering ISTC. With 50% of students having a high school diploma or GED, this could be one of the first opportunities that they have received to experience a more structed educational environment in the CTE courses.

Research Question Four

To what extent is there a statistically significant difference in instructor validation by campus?

This question utilized the construct instructor validation as identified through the PCA. The findings indicated there were statistically significant differences in instructor validation between campuses; however, post hoc testing did not reveal statistically significant differences between campuses. This suggests that generally, students at ISTC have similar perceptions of how instructors validate student participation in classes. The findings demonstrate students are empowered and validated by instructors in the classroom environment, which is indicative of student engagement (Astin, 1984; Rendon; 1994; Tinto, 1993).

The instructor validation construct was comprised of items that measured how students felt about several factors related to time in the classroom. From this, it can be deduced that students at the three campuses felt that instructors provided them with feedback to improve in classes. Students at all campuses also believed their contributions were valued in class. Additionally, students felt instructors encouraged them to ask questions in class, and they the courses inspired then to think in new ways. Current literature produced by practitioners of higher education in prison provides first-hand accounts of the positive experiences these practitioners personally have had, as well as those of students (Castro Brawn, Graves, Mayorga, Page, &

Slater, 2015; Ginsburg, 2014; Lewen, 2014). Rendon (1994) noted that students gained more confidence when supported by instructors which is essential for students in this setting.

Research Question Five

To what extent is there a statistically significant difference in student engagement with instructors by campus?

Student engagement theorists suggest that instructors have a large role in how students engage in the classroom (Tinto,1985). These findings support Astin's (1984) assertion that students who have frequent positive interactions with faculty are more likely to express satisfaction and have a deeper level of engagement. The construct student engagement with instructors yielded statistically significant differences between campuses. This construct differs from instructor validation, as it emphasizes the direct interaction between student and instructor rather than the validation and encouragement that occurs within the classroom setting.

The differences between campuses demonstrated students' perceptions of how instructors provided feedback, discussed career plans with students, discussed grades with instructors, and discussed ideas with students. The data indicated that students at Draper and Tutwiler had similarly positive experiences and interactions with instructors when compared to students at Main. One plausible explanation for this could be the environments at Draper and Tutwiler facilitate more opportunities for meaningful engagement.

It is important to emphasize these differences, as student and instructor engagement is a measurement of overall student engagement that can indicate positive outcomes for students. This is further explained by the CCSSE benchmark on student-faculty interaction, which states;

The more interaction students have with their teachers, the more likely they are to learn effectively and persist toward achievement of their educational goals. Personal interaction with faculty members strengthens students' connections to the college and helps them focus on their academic progress. (CCSSE, 2020b).

Research Question Six

What are the background characteristics, academic engagement, and instructor engagement that predict students' overall satisfaction at this college?

To answer this research question, a hierarchical multiple regression was conducted. The full hierarchical multiple regression model explained 29.4% (adj R^2 = .294) of the variability of students' overall satisfaction at ISTC. Essentially, 29% of students' overall satisfaction can be accounted for by the addition of independent variables to the model. The variables included in the hierarchical regression model were determined based on the hypothetical model influenced by Astin and antonio's (2012) IEO model. Astin and antonio's model emphasize the importance to account for background (or input) characteristics. However, for this analysis inputs did not factor into students' likelihood to experience overall satisfaction. Environmental factors exclusively supported the variance in the model, serving as predictors for students' overall satisfaction. The regression model based on Astin and antonio's (2012) IEO model was utilized as the frame for the analysis and is listed by inputs and environmental variables.

Inputs: Background Characteristics

The background characteristics utilized for the analysis were: age, sex, race (White and non-White), student's highest level of education, and years left in sentence. None of the student background characteristics were predictive of overall satisfaction at ISTC when considered in isolation or with other variables added to the model. This is consistent with research that suggests input characteristics have little to no impact on the outcome of student satisfaction (Astin, 1977, 1993; Astin & antonio, 2012).

Environment: Reason for pursuing the program

The environment variable pursuing the program because it will lead to good career wages was not predictive of students' overall experience. One plausible explanation for this could be attributed to students' high levels of agreement that they were pursuing the program to get good wages, as identified through frequencies that were examined in research question one.

Environment: Academic Challenge Construct and Knowledge and Skill Development Construct

The academic challenge construct was not a positive predictor of overall student satisfaction. When added to the model, knowledge and skill development construct predicted overall student satisfaction in isolation; however, it was not a significant predictor of overall student satisfaction when the student engagement with instructors construct, instructor validation construct, and overall support construct were added in the final block of the analysis, indicating the final block variables were better predictors of overall student satisfaction. In essence, as a student's experience at ISTC contributed to the student's knowledge and skill development increase, so did overall satisfaction. This is consistent with studies that suggest satisfaction is directly related to student engagement with educational activities that positively influence students' evaluation of their experience (Baker & Siryk, 1989; Bean & Creswell, 1980; Pascarella & Terenzini, 1991; Strayhorn, 2011; Strayhorn & Johnson, 2014). With no background characteristics predictive of overall satisfaction, this suggests that the environmental factors are more informative of overall student satisfaction than background characteristics.

Environment: Student Engagement with Instructors Construct, Instructor Validation Construct, and Overall Support Construct

Instructor validation and overall support constructs were predictive of student overall satisfaction when added to the final model, while student engagement with instructors was not statistically significant the instructor validation support was predictive of overall support.

Not surprisingly, overall support was a significant predictor of overall student satisfaction. The more a student felt supported by campus groups such as administrators, student support services, instructors, and other students, the higher their satisfaction was. This is consistent with research about student satisfaction when there is meaningful and supportive interaction with instructors and students (Astin, 1984; Holland, 1997; Rendon, 1994).

Research Question Seven

What are the background characteristics, academic engagement, and instructor engagement that predict students' perception of courses inspiring them to think in new ways?

To answer this research question, a hierarchical multiple regression was conducted. The full hierarchical regression model explained 32% ($R^2 = .320$) of the variability of predicting students' perception of courses inspiring them think in new ways. Essentially, 32% of predicting students' perception of courses inspiring them to think in new ways could be accounted for when independent variables were added to the model. Like the previous regression model, this also followed the hypothetical model and utilized Astin and antonio's (2012) IEO model.

Inputs: Background Characteristics

The same background characteristics were utilized from the previous model — age, sex, race (White or non-White), highest level of education, and years left in sentence — as inputs in block one. The non-White race variable was predictive of students' perception of courses

inspiring them to think in new ways in isolation as well as when environmental factors were added to the model. When the environmental factors of academic challenge construct and knowledge and skill development construct were added to the third block in the model, the non-White race variable dropped in statistical significance to p = .055, meaning non-White students significantly perceived courses as inspiring them to think in new ways. It is also worth noting that lower levels of prior education, though not significant at p = .08, were close to being predictive of courses inspiring students to think in new ways. One plausible explanation for this could be that the CTE courses were the first time students were exposed to learning environments that facilitated engagement with courses. When other environmental factors were added — student engagement with instructors, instructors provided feedback, students felt their contributions were valued in class, and they were encouraged to ask questions and participate the non-White race variable was still predictive for the outcome, suggesting that race is predictive for courses inspiring students to think in new ways.

Environment: Dream to Pursue Work in This Field

There was no significant change when adding the variable of students dreamed of doing something in the field of study they were pursuing.

Environment: Academic Challenge Construct and Knowledge and Skill Development Construct.

The addition of these two variables generated statistical significance to the model. Academic challenge construct was predictive of students' perception of courses inspiring them to think in new ways in isolation, as well as in the final model when other environmental factors were added. Knowledge and skill development construct was also predictive of students' perception of courses inspiring them to think in new ways in isolation and when added to the full model. These findings support literature that academic practices that promote higher levels of learning are associated with desired outcomes (CCSSE, 2020; Chickering & Gamson, 1987; Pascarella & Terenzini, 2005). Most of the variability in the model is based on the academic challenge and knowledge and skill development construct addition, with a 20% change when added. This indicates academic challenge and knowledge and skill development are the most important factors that influence students' perception of courses inspiring them to think in new ways. It is reasonable to deduce that if students are more academically challenged by their coursework, then they will be inspired to think in new ways.

Environment: Student Engagement With Instructors, Instructors Provided Feedback, Students Felt Their Contributions Were Valued in Class, and They Were Encouraged to Ask Questions and Participate

The last variables added to the model were student engagement with instructors, instructors provided feedback, students felt their contributions were valued in class, and they were encouraged to ask questions and participate. Instructors gave feedback was the only variable predictive of students' perception of courses inspiring them to think in new ways. As in research question four and five, this demonstrates that instructors have a vital role to play in the education process.

Conclusions From the Findings

This exploratory study had several purposes. One purpose of the study was to explore incarcerated student engagement in a technical college. Additionally, a new survey instrument, ISEQ, was created from national survey instruments and tested to see if it could be reliable to evaluate incarcerated student engagement. Lastly, the study used a hypothetical model based on Astin and antonio's (2012) IEO model to determine if incarcerated students' background

characteristics and academic engagement experiences predicted the outcomes of overall satisfaction and students' perception of courses inspiring them to think in new ways. Several conclusions could be made from the findings and are presented below.

Conclusion One

The ISEQ was an appropriate survey instrument to explore incarcerated student engagement in a technical college.

Like NSSE and CCSSE, the ISEQ demonstrated a connection with student engagement in academics and student engagement with instructors as contributing factors to students' overall satisfaction. The ISEQ utilized many of the questions that have proven to be indicators for student engagement in community colleges. The ISEQ differed from CCSSE in that questions related to outside-of-class engagement were not applicable to the students who participated in this study. One question on the ISEQ asked students for the number of hours they spent preparing for class, with 60% of respondents selecting one to five hours. Apart from asking students how often they discussed what they learned with peers and the guards inside the camps, there were no other questions applicable to outside activities.

The results yielded several statistically significant findings and highlighted differences among the three campuses that participated in the survey. Tutwiler students expressed higher levels of academic challenge when compared to Draper. The smaller sample size of participants at Tutwiler could be one explanation for the difference, as there might have been less variation in their responses, or it could be that different programs elicit a different level of challenge. For example, automotive technology at Tutwiler might stimulate more course rigor than plumbing at Draper.

Additionally, student engagement with instructors was different among campuses. The findings revealed that Main Campus students experienced engagement with instructors differently. One plausible explanation could be that the different programs do not provide opportunities for students to engage at the same level.

The researcher observed differences in campus culture that were not measured in the ISEQ. This could explain some of the variation among campuses as identified through the oneway ANOVAs. The rapport between student and instructor was noticeable, as some students seemed to be more relaxed in conversations with instructors. Students on two campuses appeared to have more opportunities to move around freely than the other campus. Not measured on the ISEQ, these factors could account for differences identified through the ANOVAs.

Conclusion Two

Environmental experiences are better predictors of outcomes than background characteristics.

This study utilized questions from CCSSE to explore if and how incarcerated students engage with academics. Just as CCSSE utilized the concepts of Chickering & Gamson (1987), Pascarella and Terenzini (1991), and Tinto (1993) to measure community college student engagement, the ISEQ sought to measure incarcerated student engagement in a technical college setting. The findings confirmed that engagement is related to what students do in the college setting (Astin,1985; Kuh, Schuh, Whitt, & Associates, 1991).

Descriptive statistical analysis of the survey questions provided the opportunity to explore each item and how students responded to those items. Students most often responded in agreement with questions, or selected higher frequencies, depending on the type of question. Respondent similarly responded to questions that inquired about if the skills they learned would

help them obtain a job, adjust to returning home, work with others in a similar field, and participate in community events. Almost 85% of students believed what they were learning through CTE courses would help them obtain employment.

Over 80% of students had a GPA of 3.0 or above and rarely missed classes. Additionally, the descriptive analysis of the survey responses indicated that students were engaged in academics, as the number of positive responses outweighed the negative responses. This is indicative of similarities with CCSSE, NSSE, and Astin (1984), supporting the idea or something similar that students who actively engage with academics are more successful persisting throughout college.

Astin and antonio's (2012) IEO model was utilized to temporally add independent variables to the model for the hierarchical regressions. Student overall satisfaction was predicted by environmental factors as opposed to background characteristics, which was consistent with previous research (Astin, 1977; Astin & Antonio, 2012). Only one background characteristic, non-White race variable, demonstrated any variance in the model that was employed to predict students' perception of courses inspiring them to think in new ways. Other variables from the environment — academic challenge construct and knowledge and skill development construct — were better variables for predicting students' perception of courses inspiring them to think in new ways. These two variables are consistent with findings from Astin (1984) and Kuh, Schuh, Whitt, and Associates (1991), who suggest the effort executed by a student in an academic setting will enhance personal growth. This brings into question if background characteristics are important, or if it is solely the campus environment that predicts outcomes for this group of students, who potentially may not identify with those background characteristics anymore have after serving time for many years before becoming eligible to enroll in ISTC.

Academic engagement experiences predict overall student satisfaction. This study found that 96% of students who responded to the survey had either a good or excellent experience at the college. In two and four-year colleges, student satisfaction is an important element for measuring success. This alone can indicate that students likely experience high levels of engagement, thus persisting throughout the program. Instructor validation construct and overall support construct were significant, and these findings further built on the works of others that emphasize the important role faculty play in students engaging in the college setting and experiencing satisfaction (Astin 1985; Chickering & Gamson, 1987; Kuh, Schuh, Whitt, & Associates, 1991; Pascarella & Terenzini, 1991).

Recommendations for Future Research

Further refinements should be made to the ISEQ for continued use.

This study was exploratory and utilized the newly constructed ISEQ to systematically collect data about students and their engagement with CTE courses in a postsecondary setting at a technical college. The pilot study provided the opportunity to gain valuable insight from a small cohort of students in order to add additional questions to the questionnaire. After administering the survey at three different campuses, it was apparent additional questions could be added while others needed clarification.

The background characteristics questions were limited, and some of the questions may not be necessary for future surveys. For example, questions relating to parents' level of education could be removed. This study focused on the student's educational background before beginning the program at ISTC. Additional questions about the students' living environments in the correctional facility should be added. This exploratory study suggested that few of the background characteristics measured predicted outcomes. One explanation for this could be that students may have been incarcerated for a number of years, making the background questions less pertinent.

The ISEQ briefly explored students' aspirations, but this is an area that needs further refinement and exploration. Students positively responded to questions about desire to engage with the community and experience success in business. Many of these questions were grouped into one section toward the end of the questionnaire, and they could be placed in an earlier section to maximize response rate.

Qualitative studies should be explored to further understand incarcerated student engagement.

Additional insight could be gained by pursuing a qualitative study to interview incarcerated students who participate in CTE classes. This will allow researchers to gain additional insight into how students view engagement and discover other questions that could be added to the ISEQ for future use. A qualitative study could seek to understand students' experiences interacting with instructors, inquire about their other goals for pursuing the program, and examine how the camp factors into their studies. Do they want to pursue other educational opportunities?

Additional student engagement theories could explore other manners in which students engage.

This exploratory study revealed more about incarcerated engagement in CTE courses at one technical community college utilizing Astin's (1984) theory of student involvement to better understand the implications of engagement in the college setting. This theory was beneficial in understanding the importance of student and instructor interactions in promoting satisfaction and involvement. Student engagement theories (Astin, 1985; Chickering & Gamson, 1987; Kuh,

Schuh, Whitt, & Associates, 1991; Pascarella & Terenzini, 1991) are helpful for studying incarcerated student engagement, but these do not take into account the limitations encountered by this population. For example, the students in this study were not allowed to take reading materials or homework back into their camps, and extracurricular activities were not an option.

A comparative study should be pursued to gain more insight into how there could potentially be differences in incarcerated student engagement in a college campus setting versus postsecondary education that occurs inside the prison facility.

Past studies provide insight into incarcerated students' engagement in classroom settings that are physically located within the prison system. Utilizing the ISEQ with a different sample could explore if students evaluate their experiences similarly or demonstrate significant differences according to the academic setting or something similar. This study was delimited to three campus locations, but ISTC operates other programs inside the prison facilities. ISTC is the only technical college in the nation that serves only incarcerated students. Comparative studies with other prison higher education programs are important for understanding the best learning environments for students.

Future studies should pursue longitudinal research of incarcerated students to learn about outcomes after time served.

This study only provided a glimpse into the trajectories of these students. To learn more about the impact of academic engagement on outcomes, a longitudinal survey could provide further affirmation that students who are more engaged have more opportunities for success. The success outcomes could be measured by multiple factors, including transferring to a two or fouryear college, employment, or community involvement. A study of this nature could provide

students the opportunity to reflect on their time enrolled in CTE classes and offer additional suggestions for improving the curriculum for future students.

Astin and antonio's (2012) IEO model should be modified for future studies.

The model was important for the employment of hierarchical regression analysis for the study. However, incarcerated students have an additional variable that is not included, which is the time they spend in the correctional facility. There is another layer between the background characteristics inputs and the environment. This should be explored further with new models created to account for the time students spent in correctional facilities before entering a postsecondary or higher education program.

Future studies exploring the role student services have working with incarcerated students should be explored.

The ISEQ did not include questions assessing the levels of interaction between incarcerated students and student support personnel. This study demonstrated that students are interested in future opportunities to find employment and pursue additional education. Further studies could incorporate additional questions regarding the time students spend in career counseling and academic counseling.

Future studies should explore how alternative instruction can be offered to incarcerated students.

The researcher collected data only a month before the COVID-19 pandemic. Since that time, access to higher education has become even more challenging for students. For the incarcerated students who participated in this study, access to courses was non-existent.

Future studies should focus on expanding theoretical work on higher education in prison.

There is an absence of higher education in prison theoretical works to support understanding and measurement of not only incarcerated student engagement, but other important student development theories. While reviewing literature for the study, it was apparent to the researcher that there was a dearth of theoretical works to guide the research. More quantitative and qualitative research is needed to create theoretical works.

Implications for Policy and Practice

Policy

There are several implications for policy that stem from the findings of this exploratory study. ISTC is a unique technical college that simulates a community college campus, allowing incarcerated students to access postsecondary education that is not delivered directly in the correctional facility. Students expressed a high level of satisfaction with their courses and interactions with instructors, administrators, and student support services. This model of delivery for postsecondary education of incarcerated students could be replicated by other institutions.

Over 99% of incarcerated student participants in the study indicated a primary goal for taking classes was to obtain or update job-related skills. This is important for ADOC and policy makers to know, as it validates the investment in postsecondary education to incarcerated individuals. Additionally, student participants indicated they were taking classes for self-improvement and personal enjoyment. This finding indicates that students might be interested in pursuing more than just CTE classes. For example, the Alabama Prison Arts + Education Project (APAEP) is affiliated with a state university and provides educational opportunities for incarcerated students to pursue arts and sciences while earning college degree credits. The students who participated in the ISEQ were asked about their interest in participating in other classes if they were available. Students did express an interest in classes such as business

management, finance, and computer programming. Based on students' interests, providing access to more than CTE classes should be considered. The Alabama Community College System currently operates more than a dozen postsecondary education programs in prisons throughout the state and could consider expanding the curriculum at ISTC.

Students also reported they seldom missed classes, and they rarely attended without completing work. Students' positive responses to questions related to academic challenge and knowledge and skill development imply that the college is providing classroom learning that engages students on campus and may lead to positive outcomes for students in the future. College administrators can utilize the results to further advocate for the importance of education for incarcerated people, as it not only promotes job-readiness, but also personal development skills. ISTC states it mission as "developing responsible citizens," which begs the question: What more can be done to facilitate this mission? If students had access to study materials in the prisons, how might that enhance the level and quality of education students receive while incarcerated?

This study did not depict if or how technology was used by students or incorporated into the CTE programs, apart from garnering insight into the classes students were pursuing during the time of the survey administration. As a result of the 2020 COVID-19 pandemic, classes came to an immediate halt for students at ISTC, so this is an area that needs to be explored as. Perhaps this is one more reason for officials to reconsider the mode of class delivery for incarcerated students.

Recidivism and job placement are the dominant measurement for successful outcomes of incarcerated students participating in postsecondary education. This study affirmed that updating and obtaining job skills are important to students, but so are other factors like influencing social

values and participating in the community. Additional arguments can be made for the value of offering higher education in prisons. As the state grapples with how to allocate funds to prisons, postsecondary education should be a part of the conversation. While discussions surrounding construction of new prison facilities in the state continue, the time is ideal to reimagine what higher education in prison could be for incarcerated students.

Practice

This study was the first time the ISEQ was administered. It was designed specifically for the incarcerated student population at ISTC. The technical college should continue learning from the students about their satisfaction levels and aspirations. While the majority of students indicated they were pursuing programs in order to obtain and update job skills, many indicated they wanted to have access to additional courses — specifically business management courses.

This study can inform other technical colleges that environmental factors such as the challenge of academic work and instructor engagement are instrumental in overall student satisfaction. This in turn could hopefully lead to positive outcomes for students, including securing employment after release, engaging in the community, and further pursuing educational opportunities. Utilizing CCSSE questions provided an opportunity to explore and measure the way students engage in a technical college setting in terms of thinking about traditional forms of engagement. College administrators can learn from the factors that predict student satisfaction in order to continue enhancing those experiences for students.

Instructors can learn from this research that students do feel validated by the support they receive from instructors. Discussing grades, values, receiving feedback, and career planning are all important to students. Students are eager to learn and build their knowledge and skill set and

explore more diverse subject areas. This study was an opportunity to give voice to the students and their experiences. Instructors and administrators can learn from them.

The study can also inform student support services within the college setting. Students responded that they felt supported by the student services team. Additionally, they expressed a desire to continue to receive communications from the college after release regarding job opportunities and future educational opportunities. If not already established, student support services should consider creating a mentorship program. Over 90% of students responded that they would be interested in opportunities to mentor other students.

Concluding Thoughts

Higher education in prison is a growing field, and this study adds to the scholarly literature on how incarcerated students engage in postsecondary education through a technical college. This was an exploratory study working with a population of students who had limited access to higher education resources. It was evident that although incarcerated students faced numerous obstacles, including limited time throughout the day to pursue postsecondary education, they were actively learning despite these barriers. Learning occurs in the classrooms and on the technical college campus that equips these students with skills to pursue employment following release and encourages and facilitates skill development, just like non-incarcerated students receive in community college settings.

This study is a response to calls for more research about incarcerated student experiences with higher education (Castro & Zamani-Gallaher, 2018). Student engagement theories were consulted to provide a framework for approaching the study, but no singular theory was encompassing for this research and fully applicable when considering the circumstances in which incarcerated students pursue postsecondary education (Astin, 1985; Kuh, Schuh, Whitt, &

Associates, 1991). Through descriptive and inferential statistical analysis, it was apparent that students expressed high levels of satisfaction with their experience. If higher education scholarship is applicable to this interpretation, then satisfaction is indicative of positive outcomes for these student participants.

Astin and antonio's (2012) IEO model provided a framework to conceptually understand the temporal order in which variables factor into predicting overall student satisfaction and students' perception of being inspired to think in new ways. It was evident that background characteristic inputs had little to do with predicting overall student satisfaction. However, race was predictive of students' perceptions of courses inspiring them to think in new ways. This finding indicates an area that should be examined further. The variables associated with the environment provided a deeper understanding of the avenues available for students to engage academically, both in courses as well as with instructors and administrators. The results of this research are consistent with higher education student engagement theories (Astin, 1985; Kuh, Schuh, Whitt, & Associates, 1991) that suggest environmental factors are indicative of deeper levels of student engagement.

This study found that a revised conceptual model should be considered — one that factors in incarcerated students' time in the correctional facility, so students can account for the time between leaving their previous living accommodations and beginning their sentence in the correctional facility. Thus, adding one more section to future conceptual models between the input section and environment section, which would account for their time and experiences while incarcerated. Essentially, the model could be Input-Prison-Environment-Output, as students often spend years incarcerated before meeting criteria to enroll in postsecondary educational

opportunities. This was not explored through this study, but warrants additional consideration in the future.

Many of the incarcerated students who participated in both the pilot testing of the survey instrument and the ISEQ expressed appreciation for their opinions being heard. This was the first opportunity to explore the applicability of the newly created questionnaire formed from the reliable and validated survey instrument CCSSE. Additionally, the research team learned about the campus culture and the students by visiting the campuses and speaking with students. Based on these experiences, the ISEQ can be modified for future use with incarcerated students to learn more about their experiences and level of engagement in a technical college setting.

The responses to the survey demonstrated that students feel supported by their instructors, campus administration, and the student services support staff, thus further affirming that higher engagement is indicative of positive interactions with instructors and administrators (Astin, 1985; Chickering & Gamson, 1987; Kuh, Schuh, Whitt, & Associates, 1991; Pascarella & Terenzini, 1991). The results will be shared with ISTC administrators, so they are aware their students perceived the courses as inspiring them to think in new ways and expressed satisfaction with their experiences at ISTC.

The ISEQ could not gauge out-of-class learning. Through conversations with students and administrators, the research team learned that students are not able to take materials back into the correctional facilities with them. Could this be a missed opportunity for students to be engaged with learning at a deeper level? In general college populations, out-of-class activities have shown to promote persistence and retention. If students had more opportunities to engage with learning outside of class, would it change their responses related to their goals for transferring to a two- or four-year institution?

Since students are limited in the hours they can engage with academics, it would be useful to consider additional survey questions for future use. Other items on the survey instrument also need to be reevaluated, as they were not self-explanatory to students. For example, a number of students asked for clarification about GPA ranges, student organizations, and prison sentence length.

Theories of student engagement were consulted for this study, and conclusions were deduced based on scholarly studies. However, it is apparent that no student engagement theory considers this type of technical college setting, where students are only engaged for the time they are physically on the campus. As suggested in the recommendations for future research, this is an important consideration that should be explored further.

Higher education in prison warrants further research. This exploratory study contributed to understanding more about how incarcerated students engage in the classroom environment and how they aspire to achieve. The knowledge gained from utilizing the ISEQ to systematically collect data specific to this population fills a gap in literature available on incarcerated student engagement.

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APPENDIX A. IRB Approval



Office of the Vice President for Research & Economic Development Office for Research Compliance

January 8, 2020

Frankie Laanan, PhD Department of ELPTS College of Education Box 870302

Re: IRB Application #: 19-020 "Incarcerated Students in Postsecondary Educational Programs: A Mixed Methods Study"

Dear Dr. Laanan:

The University of Alabama Institutional Review Board has granted approval for your proposed research. You have also been granted the requested waiver of written documentation of informed consent. Your application has been given approval according to 45 CFR part 46.

The approval for your application will lapse on November 20, 2020. If your research will continue beyond this date, please submit the Continuing Review to the IRB as required by University policy before the lapse. Please note, any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Please use reproductions of the IRB approved informed consent/assent form to obtain consent from your participants.

Good luck with your research.

Sincerely,

Jessup Building | Box 870127 | Tuscaloosa, AL 35487-0127 205-348-8461 | Fax 205-348-7189 | Toll Free 1-877-820-3066

APPENDIX B. Informed Consent

Project Title: Incarcerated students in postsecondary education: A mixed methods study

Informed Consent

Please read this informed consent carefully before you decide to participate in the study.

Key Information:

- You are being asked to take part in a research study.
- The research study involves taking a survey about your experiences in college.
- Please feel free to ask any questions of the researcher at any time.
- If you do not want to take the survey, then you may work on other assignments during this time.

Purpose of the research study: The goal of this study is to understand your overall educational experiences at Ingram State Technical College (ISTC). We would like to learn about your experiences in classes, connection to instructors, goals, and future career interests.

What you will do in the study: We want to study incarcerated adults who are taking college classes at ISTC. We are asking students to complete a survey who are taking career and technical education (CTE) classes.

The survey has questions about your classes. Some of the questions focus on your involvement in classes and the time you spend studying and preparing for class. The survey asks about your goals and information about your background.

You can skip any questions if you do not want to answer it. You can stop taking the survey any time.

Time required: The survey will take about 15 minutes of your time.

Risks: There is no danger for taking the survey. The questions on the survey may make you think about your overall college experiences.

Benefits: Students will not benefit directly from taking the survey. However, you might feel happy about knowing that you are helping the researchers learn more about the experiences of incarcerated students at ISTC. The information may help the staff at ISTC to improve the services to support student success in the future.

Confidentiality: We do not ask for your name and your name will not be connected to the survey. No one will know your answers.

Voluntary participation: You are not required to take the survey. Your participation in the study is your decision to make on your own.

Right to withdraw from the study: You have the right to stop participating in the study at any time. You will not get in trouble for not taking the survey. There is no negative issue to you if you stop doing the study. You may sit at your desk and work on other assignments if you choose to stop taking the survey.

Page 1 of 2

UNIVERSITY OF ALABAMA IRB CONSENT FORM APPROVED: 1, 7, 2020 EXPIRATION DATE: 11, 20, 2020 Project Title: Incarcerated students in postsecondary education: A mixed methods study

How to withdraw from the study: If you start taking the survey and decide that you do not want to finish it, then you may return it to the researcher without completing it. Nothing bad will happen to you for stopping.

Compensation/Reimbursement: We will not be paying any student for completing the survey. Your participation will not impact your term of incarceration or parole.

Using data beyond this study: We plan to take the information from the surveys to do more analysis. We will keep all the information secured for future use. The research team will use the information to study the education of incarcerated adults in Alabama. In the future we will not ask your permission to use the answers we collect today on this survey for other research studies.

If you have questions about the study or need to report a study related-issue, please contact:

Dr. Frankie Santos Laanan Department of Educational Leadership, Policy, and Technology Studies The University of Alabama 301 Graves Hall, Box 870302 Tuscaloosa, AL 35487 205-348-5811

If you have questions about your rights as a participant in a research study, would like to make suggestions or file complaints and concerns about the research study, please contact:

Ms. Tanta Myles, the University of Alabama Research Compliance Officer at (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Office utilizing the following address:

University of Alabama Office for Research Compliance Box 870127 Tuscaloosa, AL 35487

By completing this survey, you are agreeing to participate in the research study.

UNIVERSITY OF ALABAMA IRB CONSENT FORM APPROVED: 172020 EXPIRATION DATE: 120 2020

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APPENDIX C. ISEQ

Incarcerated Student Engagement Questionnaire

| Please mark your answers with or 1. What type of program are you curre | X ently pursuing? | | | | |
|---|--------------------------------------|----------|--------------------------|-------------------|----------|
| Please select all that apply | _ | _ | - | | |
| Automotive Body Repair | Automotive Mechanics | | Barbering | | |
| Cabinetmaking | Carpentry | | Commercia | al Truck Drivi | ng |
| Cosmetology | Diesel Mechanics | | Electrical T | echnology | |
| HVAC | Industrial Systems Technolo | gy | Logistics a Technolog | nd Supply Cł y | nain |
| Masonry | Office Information Systems | | Plumbing | | |
| Swift Coding | Upholstery | Г | Welding | | |
| Other | | | | | |
| 2. I have changed programs since begin Please select one | ning my classes. | | | | |
| ☐ Yes | | | | | |
| | | | | | |
| | | | | | |
| 3. I am currently pursuing this progra | am because | Agroo | Agroo | Disagras | Disagraa |
| | Please select one in eachline | Strongly | Somewhat | Somewhat | Strongly |
| The sk | | | | | |
| Othe | er family members work in this field | | | | |
| I always dream | med of doing something in this field | | | | |
| Thi | s was my only option as a student | | | | |
| 4. If offered, I would be interested in ta | king classes here in the followin | g: | | | |
| | Please select one in each line | Agree | Agree | Disagree | Disagree |
| | Flease select one in eachine | Strongly | Somewhat | Somewhat | Strongly |
| | Reading, writing, and composition | | | | |
| | | | | | |
| | | | | | |
| | Business management | | | | |
| | | | | | |
| | Math | | | | |
| | Science | | | | |
| | Marketing | | | | |
| | | | | | |
| | | | Π | $\overline{\Box}$ | |
| | Foreign language (ex. Spanish) | | | | |

| | • | | | | | | | |
|---|---------------|-------|-----------|-------|--|--|--|--|
| Please select one in each line | Very Often | Often | Sometimes | Never | | | | |
| Asked questions in class | | | | | | | | |
| Given a presentation in class | | | | | | | | |
| Attended class without finishing the assignment | | | | | | | | |
| Talked to your instructor about your grade | | | | | | | | |
| Talked about your career plans with your instructor or an advisor | | | | | | | | |
| Received feedback from your instructors about your grades or assignments | | | | | | | | |
| Worked harder than you thought you could on assignments | | | | | | | | |
| Discussed ideas withinstructors | | | | | | | | |
| Discussed ideas with other classmates | | | | | | | | |
| Engaged in relevant discussions with students about religion, politics, or personal beliefs | | | | | | | | |
| Discussed your classes with other people living in your facility who do not attend classes | | | | | | | | |
| Talked about your classes with guards | | | | | | | | |
| 6. During the current school year, how much has your coursework emphasized the following mental activities? | | | | | | | | |

| Please select one in each line | Very Often | Often | Sometimes | Never |
|--|---------------|-------|-----------|-------|
| Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form | | | | |
| Analyzing the basic elements of an idea, experience, or theory | | | | |
| Forming a new idea or understanding from various pieces of information | | | | |
| Making judgments about the value or soundness of information, arguments, or methods | | | | |
| Applying theories or concepts to practical problems in new situations | | | | |
| | | | | |

7. How much has your experience at ISTC contributed to your knowledge, skills, and personal development in the following areas:

| Please select one in each line | Very much | Quite a bit | Some | Very little |
|---|-----------|-------------|------|-------------|
| Acquiring job or work-related knowledge and skills Speaking clearly and effectively Writing clearly and effectively Analyzing numerical and statistical information Solving complex real-world problems | | | | |
| | | | | |

5. During your time in classes at ISTC, how often have you done the following?

| o. Since entering conege at | ISIC, now often nave | you felt | | | | | | |
|--|--|--|--|-------------------------------|---|---|------------------------|-----------------|
| | | Please select | one in ea | ich line | Very Often | Often | Sometimes | Never |
| | your courses inspi | red you to thinl | k in a ne | ew way | | | | |
| | | family suppo | ort to sue | cceed | | | | |
| instructors have p | provided me with feedback | cin order to impr | oveincla | asses | | | | |
| | my cor | ntributions are v | alued in | class | | | | |
| that instructor | rs have encouraged me to | ask questions a | nd partic | cipate | | | | |
| 9. How often do the instruct | tors and the college do | the following | ? | | Verv | | | |
| | | Please select | one in ea | ach line | Often | Often | Sometimes | Never |
| | Encour | age you to stud | y on you | rown | | | | |
| (| Give you the support you r | need to complete | e your cla | asses | | | | |
| | | Use com | puters in | class | | | | |
| | | Discuss career <u>o</u> | goals wit | h you | | | | |
| 10. Approximately how many | hours do you spend do | ing the followi | ng each | week? | | | | |
| | Please select | one in each line | None | 1 to 5 hours | 6 to 1 hours | 0 11 t s ho | to 20 more ours ho | than 21 ours |
| | | | | | | | | |
| Preparing for classes by | y studying, reading, or doi | ng homework | | | | | | |
| Preparing for classes by Disc | y studying, reading, or doi cussing classwork with oth | ng homework er classmates | | | | | | |
| Preparing for classes by Disc 11. Please indicate how sup | y studying, reading, or doi cussing classwork with oth portive the following g | ng homework er classmates roups are help | Ding you | u with y | our aca | [demic | success. | |
| Preparing for classes by Disc 11. Please indicate how sup | y studying, reading, or doin cussing classwork with othe portive the following g Pleas | ng homework er classmates roups are help se select one in e | Ding you | with y Extrem | our aca | demic uite a bi | success. | t Not very |
| Preparing for classes by Disc 11. Please indicate how sup How supportiv | y studying, reading, or doin cussing classwork with othe portive the following g Pleas ve are other students of yo | ng homework er classmates roups are help se select one in er ur academic suc | bing you ach line | with y Extrem support | our aca ely ive | demic Jite a bi | success. | t Not very |
| Preparing for classes by Disc 11. Please indicate how sup How supportiv How supp | y studying, reading, or doin cussing classwork with othe portive the following g Pleas ve are other students of yo ortive are instructors of yo | ng homework er classmates roups are help se select one in et ur academic suc ur academic suc | Ding you ach line ccess? | u with y Extrem support | our aca ely ve | demic uite a bi | success. | t Not very |
| Preparing for classes by Disc 11. Please indicate how sup How supportiv How supp How supportive are co | y studying, reading, or doin cussing classwork with othe portive the following g <i>Pleas</i> ve are other students of yo ortive are instructors of yo ollege administrators of yo | ng homework er classmates roups are help se select one in er ur academic suc ur academic suc ur academic suc | ach line ccess? ccess? | u with y Extrem support | our aca ely vive | demic uite a bi | success. it Somewha | t Not very |
| Preparing for classes by Disc 11. Please indicate how sup How supportiv How supportive are co How supportive are student su | y studying, reading, or doin cussing classwork with othe portive the following g <i>Pleas</i> we are other students of you ortive are instructors of you ollege administrators of you | ng homework er classmates roups are help se select one in er ur academic suc ur academic suc ur academic suc | ach line ccess? ccess? ccess? | u with y Extrem support | our aca ely Qu ive | demic uite a bi | success. it Somewha | t Not very |
| Preparing for classes by Disc 11. Please indicate how sup How supportive How supportive are co How supportive are student su 12. How often do you discus Please select one option | y studying, reading, or doin cussing classwork with othe portive the following g <i>Pleas</i> we are other students of yo ortive are instructors of yo ollege administrators of yo upport services staff of you ss what you learn in cla | ng homework er classmates roups are help se select one in en ur academic suc ur academic suc ur academic suc ur academic succ asses with oth | bing you ach line ccess? ccess? ccess? ccess? ccess? | u with y Extrem support | our aca ely Qu ive Cla | demic uite a bi | success. it Somewha | t Not very |
| Preparing for classes by Disc 11. Please indicate how sup How supportive How supportive are co How supportive are student su 12. How often do you discus Please select one option Very Often | y studying, reading, or doin cussing classwork with othe portive the following g <i>Pleas</i> we are other students of yo ortive are instructors of yo ollege administrators of yo upport services staff of you ss what you learn in cla | ng homework er classmates roups are help se select one in en ur academic suc ur academic suc ur academic succ asses with oth | bing you ach line ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? ccess? | u with y Extrem support | our aca ely Qu ive | demic uite a bi | success. it Somewha | t Not very |
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| Preparing for classes by Disc 11. Please indicate how sup How supportive How supportive are con- How supportive are student su 12. How often do you discuss Please select one option Very Often 13. I am a member of the for Please select all that apply Ambassadors | y studying, reading, or doin cussing classwork with othe portive the following g <i>Pleas</i> we are other students of yo ortive are instructors of yo ollege administrators of yo ollege administrators of you ss what you learn in cla Often Often Dlowing campus organ | ng homework er classmates roups are help se select one in en ur academic suc ur academic suc ur academic succ asses with oth Sor sizations: | bing you ach line ccess? ccess? ccess? ccess? er stud | u with y Extrem support | our aca ely Qu ive Qu | demic uite a bi uite a bi usses? | success. it Somewha | t Not very |
| Preparing for classes by Disc 11. Please indicate how sup How supportive How supportive are con- How supportive are student su 12. How often do you discuss Please select one option Very Often 13. I am a member of the for Please select all that apply Ambassadors President's List | y studying, reading, or doin cussing classwork with othe portive the following g Pleas we are other students of you ortive are instructors of you ollege administrators of you ollege administrators of you ss what you learn in cla Often Often Often Dilowing campus organ Innovato | ng homework er classmates roups are help se select one in en ur academic suc ur academic suc ur academic suc ur academic suc asses with oth Sor sizations: rs Technical Hono | Ding you ach line ccess? ccess? ccess? cess? er stud metimes | u with y Extrem support | our aca ely Qu ive Qu king cla | demic uite a bi uite a bi usses? Nev s List neta Ka | success. it Somewha | t Not very |

| 14. | Indicate which of the followin | g are | your reasons/goals for takin | g classes at this educational site: |
|-----|--------------------------------|-------|------------------------------|-------------------------------------|
|-----|--------------------------------|-------|------------------------------|-------------------------------------|

| | Please | select one in each line | Primary goal | Secondary goal | Not a goal |
|--|----------------------------|---------------------------------|-----------------------|---------------------|---------------|
| | Complete | a certificate program | | | |
| | Obtai | n an associate degree | Π | | |
| | Transferto a 2-vea | rcollege after release | | | |
| | Transfer to a 4-yea | ar college after release | | | H |
| | Obtain or un | date job-related skills | | | |
| | Self-improveme | ent/personal enjoyment | | | H |
| | To have an activity | | | | |
| | To have an activity | to occupy your time | | | |
| 15. I would recommend takin where I currently live. Please select one option | g classes to another perso | on not currently enro | lled in classes | but living in the s | same facility |
| Agree Strongly | Agree Somewhat | Disagree So | omewhat | Disagree St | rongly |
| 16. How would you evaluat Please select one option | e your entire education | experience at ISTC ² | ? | _ | |
| Excellent | Good | Fair | | Poor | |
| 17 I have missed classes for | the following reasons: | | | | |
| | the following reasons. | | Very | Often Someti | mar Navar |
| | | Please select one in e | <i>ach line</i> often | Orten Someti | ines never |
| | | Health Re | easons | | |
| | | Disciplinary Re | easons | | |
| | | Did not want to | attend | | |
| | | Personal R | easons | | |
| 18. At this college, what is y | our overall college grad | e point average? | | | |
| ΠΑ | 5.5 | | | | |
| Пв | | | | | |
| □ c | | | | | |
| D or lower | | | | | |

I do not have a GPA at the college

| | | Agroo | Agroo | Disagrag | Dicagroo |
|---|--------------|-------------------|--------------------|----------------------|----------------------|
| Please select one in ea | achline | Strongly | Somewhat | Somewhat | Strongly |
| Obtai | n a job | | | | |
| Adjust to returning | home | | | | |
| Work with others in a simila | ar field | | | | |
| Participate in community | events | | | | |
| 20. Indicate the importance to you personally of each of the fol | lowing | : | | | |
| Please select one in each line | Ver impor | ry Imp tant | portant Son imp | ortant Not | important |
| Becoming successful in a business of my own | |] | | | |
| Recognition of my colleagues and others for my work | |] | | | |
| Influencing social values | |] | | | |
| Raising a family | |] | | | |
| Being very well off financially | |] | | | |
| Helping others who are in difficulty | |] | | | |
| Writing original works like poems or novels | |] | | | |
| Creating artistic works | |] | | | |
| Participating in my community | |] | | | |
| Helping promote racial equality | |] | | | |
| Keeping up to date with political affairs | |] | | | |
| Becoming a community leader | |] | | | |
| Encouraging others to participate in educational programs | |] | | | |
| 21. Following release, I would like to receive information from I | ngram | State Teo | hnical Colle | ge about the | e following: |
| Please select one in ea | ich line | Agree Strongly | Agree Somewhat | Disagree Somewhat | Disagree Strongly |
| Employment opport | unities | | | | |
| Opportunities for mentoring other stu | dents | | | | |
| Continuing educational opportunities at other co | lleges | | | | |
| 22. What is your age range? | | | | Pleas | e select one |
| ☐ 18 to 19 ☐ 20 to 21 ☐ 2 | 2 to 24 | | | 25 to 29 | |
| □ 30 to 34 □ 35 to 40 □ 4 | 1 to 49 | | | 50 to 64 | |
| 65 or older | | | | | |

19. Do you think the skills you are learning now will help you with the following after release?

| 23. What is yourgender? | | | Please select one |
|---|---------------------------------|-----------------------|---|
| Man | | | |
| Woman | | | |
| I prefer not to respond | | | |
| 23. What is your racial or e Please select all that apply | ethnic identification? | | |
| American Indian or Nat can | iveAmeri- 🗌 Asian | | Pacific Islander (non-Native Hawai- ian) |
| Native Hawaiian | Black or Africa Hispanic | an American, Non- | White, Non-Hispanic |
| Hispanic or Latino | Other | | I prefer not to respond |
| 24. What was your highes Please select one | t level of education prior to o | entering the program | n at ISTC? |
| None | High School Diploma | GED | Some college with no degree |
| Vocational/Technical Certificate | Associate Degree | Bachelor's Deg | ree Master's Degree |
| Doctorate Degree | | | |
| 25. What is the highest level Please select one | vel of education achieved by | your mother? | |
| None | High School Diploma | GED | Some college with no degree |
| Vocational/Technical Certificate | Associate Degree | Bachelor's Deg | ree Master's Degree |
| Doctorate Degree | Unknown | | |
| 26. What is the highest level please select one | vel of education achieved by | your father? | |
| None | High School Diploma | GED | Some college with no degree |
| Vocational/Technical Certificate | Associate Degree | Bachelor's Deg | ree Master's Degree |
| Doctorate Degree | Unknown | | |
| 27. How many years was y Please select one | our original court ordered pr | ison sentence? | |
| 0 to 5 years | 6 to 10 years | 11 to 20 years | 21 or more years |
| 28. Not counting potentia Please select one | I parole, how many years de | o you have left to se | erve of your original sentence? |
| 0 to 2 years | 3 to 5 years | | 6 to 8 years |
| 9 to 10 years | 11 or more ye | ears | |

| APPENDIX D | . Descriptive | Statistics by | Campus |
|-------------------|---------------|---------------|--------|
|-------------------|---------------|---------------|--------|

Descriptive Statistics by Campus

| Campus | Survey Question | Ν | Minimum | Maximum | Mean | Std. Deviation |
|--------|--|----|---------|---------|------|----------------|
| | | | | | | |
| Draper | Pursuing program reason wages | 71 | 3 | 4 | 3.83 | .377 |
| | Pursuing program reason family work in field | 54 | 1 | 4 | 2.17 | 1.194 |
| | Pursuing program reason dreams | 56 | 1 | 4 | 3.04 | .990 |
| | Pursuing program reason only option | 56 | 1 | 4 | 1.68 | .993 |
| | Future classes in reading and composition | 55 | 1 | 4 | 3.09 | .928 |
| | Future classes in art | 54 | 1 | 4 | 3.00 | 1.116 |
| | Future classes in finance | 56 | 1 | 4 | 3.38 | .885 |
| | Future classes business management | 58 | 1 | 4 | 3.52 | .843 |
| | Future classes in history | 55 | 1 | 4 | 3.07 | 1.016 |
| | Future classes in math | 58 | 1 | 4 | 3.10 | .931 |
| | Future classes in science | 53 | 1 | 4 | 2.98 | 1.009 |
| | Future classes in marketing | 53 | 1 | 4 | 3.19 | 1.020 |
| | Future classes computer programming | 59 | 1 | 4 | 3.34 | .843 |
| | Future classes in language | 57 | 1 | 4 | 3.04 | 1.034 |
| | Frequency in class asked questions | 69 | 2 | 4 | 3.20 | .739 |
| | Frequency in class gave presentations | 68 | 1 | 4 | 2.19 | .996 |

| Frequency in class | 64 | 1 | 3 | 1.52 | .617 | |
|---|------------|---|---|-------|------|--|
| Incomplete assignment Frequency in class discuss | 69 | 1 | 4 | 2.83 | .907 | |
| grade with instructor | 07 | 1 | | 2.05 | .901 | |
| Frequency in class discuss | 70 | 1 | 4 | 3.23 | .837 | |
| career with instructor | | | | | | |
| Frequency in class | 68 | 1 | 4 | 3.22 | .808 | |
| received feedback from | | | | | | |
| | (0 | 1 | Λ | 2.25 | 047 | |
| Frequency in class worked | 69 | 1 | 4 | 3.25 | .84/ | |
| Frequency in class discuss | 69 | 1 | 4 | 3.06 | 889 | |
| ideas with instructor | 07 | 1 | · | 5.00 | .009 | |
| Frequency in class discuss | 69 | 1 | 4 | 3.13 | .873 | |
| ideas with classmates | | | | | | |
| Frequency in class discuss | 69 | 1 | 4 | 2.42 | .976 | |
| beliefs | | | | | | |
| Frequency in class discuss | 69 | 1 | 4 | 2.81 | .928 | |
| class with other in camp | | | | | | |
| Frequency in class discuss | 68 | 1 | 4 | 1.94 | .960 | |
| class with guards | 7 1 | 2 | 4 | 2.1.4 | 740 | |
| Coursework emphasized | /1 | 2 | 4 | 3.14 | .743 | |
| facts | | | | | | |
| Coursework emphasized | 67 | 1 | 4 | 2.85 | .892 | |
| activities analyzing ideas | 01 | 1 | · | 2.00 | .0,2 | |
| Coursework emphasized | 69 | 1 | 4 | 2.84 | .868 | |
| activities forming new | | | | | | |
| ideas | | | | | | |
| Coursework emphasized | 68 | 1 | 4 | 2.46 | .937 | |
| activities making | | | | | | |
| judgments | | 1 | 4 | 2 70 | 054 | |
| Coursework emphasized | 67 | 1 | 4 | 2.70 | .954 | |
| theories | | | | | | |
| Personal development in | 71 | 1 | 4 | 3 56 | 732 | |
| acquiring job skills | 11 | I | Т | 5.50 | .132 | |
| Personal development in | 68 | 1 | 4 | 3.00 | .946 | |
| speaking clearly | | | | | | |

_

| Personal development in writing clearly | 70 | 1 | 4 | 2.74 | 1.045 |
|---|----|---|---|------|-------|
| Personal development in analyzing statistics | 68 | 1 | 4 | 2.81 | 1.011 |
| Personal development in solving problems | 68 | 1 | 4 | 3.00 | 1.037 |
| Felt inspired to think in new ways | 71 | 1 | 4 | 3.55 | .713 |
| Felt family support to succeed | 68 | 1 | 4 | 3.57 | .719 |
| Felt instructors given feedback | 69 | 2 | 4 | 3.61 | .669 |
| Felt contributions are valued in class | 69 | 1 | 4 | 3.20 | .719 |
| Felt encouraged to ask questions | 70 | 1 | 4 | 3.57 | .734 |
| Instructors encourage to study on own | 69 | 1 | 4 | 3.30 | .810 |
| Instructors support to complete classes | 69 | 2 | 4 | 3.67 | .560 |
| Instructors use computer in class | 68 | 1 | 4 | 2.10 | 1.067 |
| Instructors discuss career goals | 71 | 1 | 4 | 3.28 | .881 |
| Hours preparing for class | 71 | 0 | 4 | 1.35 | .896 |
| Hours discussing classwork with classmates | 68 | 0 | 4 | 1.32 | .905 |
| Supportive academic success students | 67 | 1 | 4 | 3.00 | .816 |
| Supportive academic success instructors | 69 | 2 | 4 | 3.65 | .564 |
| Supportive academic success college admin | 67 | 1 | 4 | 3.34 | .770 |
| Supportive academic success student services | 68 | 1 | 4 | 3.37 | .827 |
| Often discuss class with other students | 71 | 1 | 4 | 3.17 | .810 |
| Member of organizations Ambassador | 72 | 0 | 1 | .03 | .165 |

| Member of organizations Innovator | 72 | 0 | 1 | .03 | .165 |
|---|----|---|---|------|-------|
| Member of organizations Dean's List | 72 | 0 | 1 | .24 | .428 |
| Member of organizations President's List | 72 | 0 | 1 | .13 | .333 |
| Member of organizations NTHS | 72 | 0 | 1 | .01 | .118 |
| Member of organizations PTK | 72 | 0 | 1 | .03 | .165 |
| Goal certificate program | 61 | 1 | 3 | 2.66 | .655 |
| Goal associate degree | 61 | 1 | 3 | 2.39 | .759 |
| Goal transfer to two-year college | 60 | 1 | 3 | 2.03 | .802 |
| Goal transfer to four year college | 61 | 1 | 3 | 1.89 | .777 |
| Goal obtain job skills | 62 | 1 | 3 | 2.84 | .413 |
| Goal personal enjoyment | 65 | 1 | 3 | 2.83 | .486 |
| Goal occupy time | 65 | 1 | 3 | 2.18 | .748 |
| Recommend taking classes | 69 | 1 | 4 | 3.58 | .775 |
| Rate education experience at ISTC | 70 | 2 | 4 | 3.59 | .602 |
| Missed class for health reasons | 64 | 1 | 4 | 2.11 | .875 |
| Missed class for disciplinary reasons | 59 | 1 | 4 | 1.08 | .427 |
| Missed class didn't want to attend | 59 | 1 | 4 | 1.22 | .645 |
| Missed class for personal reasons | 64 | 1 | 4 | 1.91 | 1.019 |
| Grade Point Average | 63 | 0 | 4 | 2.60 | 1.326 |
| Skill to obtain a job | 67 | 3 | 4 | 3.97 | .171 |
| Skill to adjust to home | 68 | 2 | 4 | 3.56 | .557 |
| Skill work with others in similar field | 67 | 2 | 4 | 3.73 | .510 |
| Skill participate in community | 65 | 1 | 4 | 3.22 | .927 |

| | Importance success in own business | 68 | 1 | 4 | 3.62 | .754 |
|------|---|----|---|---|------|-------|
| | Importance recognition from others | 66 | 1 | 4 | 2.85 | .881 |
| | Importance of influencing social values | 65 | 1 | 4 | 3.02 | .857 |
| | Importance of raising a family | 67 | 1 | 4 | 3.73 | .592 |
| | Importance of financial stability | 66 | 1 | 4 | 3.56 | .726 |
| | Importance of helping others | 67 | 2 | 4 | 3.52 | .682 |
| | Importance of writing original works | 65 | 1 | 4 | 2.05 | 1.138 |
| | Importance of creating art | 66 | 1 | 4 | 2.45 | 1.139 |
| | Importance of participating in community | 65 | 1 | 4 | 3.15 | .922 |
| | Importance of promoting racial equality | 64 | 1 | 4 | 2.73 | 1.102 |
| | Importance of political affairs awareness | 64 | 1 | 4 | 2.42 | 1.066 |
| | Importance of being a community leader | 66 | 1 | 4 | 2.71 | 1.147 |
| | Importance of encouraging others in education | 69 | 1 | 4 | 3.55 | .718 |
| Main | Pursuing program reason wages | 99 | 2 | 4 | 3.79 | .435 |
| | Pursuing program reason family work in field | 87 | 1 | 4 | 2.26 | 1.166 |
| | Pursuing program reason dreams | 92 | 1 | 4 | 3.07 | 1.003 |
| | Pursuing program reason only option | 87 | 1 | 4 | 1.34 | .775 |
| | Future classes in reading and composition | 89 | 1 | 4 | 3.07 | 1.116 |
| | Future classes in art | 82 | 1 | 4 | 2.68 | 1.195 |
| | Future classes in finance | 86 | 1 | 4 | 3.42 | .976 |

| Future classes business management | 93 | 1 | 4 | 3.65 | .775 |
|--|-----|---|---|------|-------|
| Future classes in history | 82 | 1 | 4 | 2.88 | 1.137 |
| Future classes in math | 85 | 1 | 4 | 3.13 | 1.078 |
| Future classes in science | 82 | 1 | 4 | 3.04 | 1.071 |
| Future classes in marketing | 85 | 1 | 4 | 3.25 | 1.011 |
| Future classes computer programming | 90 | 1 | 4 | 3.33 | .994 |
| Future classes in language | 85 | 1 | 4 | 3.20 | 1.044 |
| Frequency in class asked questions | 102 | 1 | 4 | 3.28 | .776 |
| Frequency in class gave presentations | 100 | 1 | 4 | 2.13 | .917 |
| Frequency in class incomplete assignment | 99 | 1 | 4 | 1.57 | .823 |
| Frequency in class discuss grade with instructor | 101 | 1 | 4 | 2.36 | .965 |
| Frequency in class discuss career with instructor | 100 | 1 | 4 | 2.84 | .918 |
| Frequency in class received feedback from instructor | 99 | 1 | 4 | 2.97 | .920 |
| Frequency in class worked hard | 103 | 1 | 4 | 3.20 | .833 |
| Frequency in class discuss ideas with instructor | 101 | 1 | 4 | 2.94 | .915 |
| Frequency in class discuss ideas with classmates | 101 | 1 | 4 | 3.18 | .865 |
| Frequency in class discuss beliefs | 99 | 1 | 4 | 2.25 | 1.003 |
| Frequency in class discuss class with other in camp | 100 | 1 | 4 | 2.81 | 1.012 |
| Frequency in class discuss class with guards | 101 | 1 | 4 | 2.00 | 1.095 |
| Coursework emphasized activities memorizing facts | 100 | 1 | 4 | 3.09 | .889 |

| Coursework emphasized activities analyzing ideas | 100 | 1 | 4 | 2.98 | .841 |
|--|-----|---|---|------|-------|
| Coursework emphasized activities forming new ideas | 98 | 1 | 4 | 3.03 | .843 |
| Coursework emphasized activities making judgments | 99 | 1 | 4 | 2.82 | .952 |
| Coursework emphasized activities with new theories | 99 | 1 | 4 | 2.78 | .943 |
| Personal development in acquiring job skills | 103 | 1 | 4 | 3.52 | .684 |
| Personal development in speaking clearly | 100 | 1 | 4 | 3.12 | .891 |
| Personal development in writing clearly | 100 | 1 | 4 | 2.97 | .926 |
| Personal development in analyzing statistics | 99 | 1 | 4 | 2.96 | .979 |
| Personal development in solving problems | 99 | 1 | 4 | 2.90 | .964 |
| Felt inspired to think in new ways | 102 | 1 | 4 | 3.38 | .821 |
| Felt family support to succeed | 99 | 1 | 4 | 3.27 | .924 |
| Felt instructors given feedback | 97 | 1 | 4 | 3.32 | .861 |
| Felt contributions are valued in class | 99 | 1 | 4 | 3.06 | .818 |
| Felt encouraged to ask questions | 101 | 1 | 4 | 3.42 | .778 |
| Instructors encourage to study on own | 101 | 1 | 4 | 3.37 | .771 |
| Instructors support to complete classes | 103 | 1 | 4 | 3.48 | .698 |
| Instructors use computer in class | 97 | 1 | 4 | 2.55 | 1.182 |
| Instructors discuss career goals | 99 | 1 | 4 | 3.00 | .958 |

| Hours preparing for class | 101 | 0 | 4 | 1.39 | 1.029 |
|----------------------------|-----|---|---|------|---------------------|
| Hours discussing | 98 | 0 | 4 | 1.36 | .933 |
| classwork with classmates | | | | | |
| Supportive academic | 98 | 1 | 4 | 2.76 | .931 |
| success students | | | | | |
| Supportive academic | 96 | 1 | 4 | 3.45 | .752 |
| success instructors | | | | | |
| Supportive academic | 95 | 1 | 4 | 3.29 | .921 |
| success college admin | | | | | |
| Supportive academic | 97 | 1 | 4 | 3.23 | .907 |
| success student services | | | | | |
| Often discuss class with | 102 | 1 | 4 | 3.19 | .853 |
| other students | | | | | |
| Member of organizations | 104 | 0 | 1 | .02 | .138 |
| Ambassador | | | | | |
| Member of organizations | 104 | 0 | 1 | .04 | .193 |
| Innovator | | _ | | | |
| Member of organizations | 104 | 0 | 1 | .24 | .429 |
| Dean's List | | _ | | | |
| Member of organizations | 104 | 0 | 1 | .34 | .475 |
| President's List | | | | | |
| Member of organizations | 104 | 0 | 1 | .05 | .215 |
| NTHS | 101 | 0 | | 0.6 | a a <i>i</i> |
| Member of organizations | 104 | 0 | 1 | .06 | .234 |
| | 0.6 | 1 | 2 | 2 70 | COO |
| Goal certificate program | 96 | 1 | 3 | 2.70 | .600 |
| Goal associate degree | 88 | 1 | 3 | 2.09 | .753 |
| Goal transfer to two year | 91 | 1 | 3 | 1.95 | .808 |
| college | 0.4 | 1 | 2 | 1.50 | 702 |
| Goal transfer to four year | 84 | 1 | 3 | 1.50 | .703 |
| college | 02 | 1 | 2 | 2.75 | 505 |
| Goal obtain job skills | 92 | 1 | 3 | 2.75 | .505 |
| Goal personal enjoyment | 93 | 1 | 3 | 2.87 | .396 |
| Goal occupy time | 92 | 1 | 3 | 2.33 | ./28 |
| Recommend taking | 100 | I | 4 | 3.74 | .579 |
| classes | 100 | 2 | А | 254 | 576 |
| kate education experience | 100 | 2 | 4 | 3.54 | .376 |
| at 1510 | | | | | |

| Missed class for health | 97 | 1 | 4 | 1.90 | .973 |
|---|-----|---|--------|------|-------|
| reasons | | | | | |
| Missed class for disciplinary reasons | 90 | 1 | 4 | 1.13 | .545 |
| Missed class didn't want | 91 | 1 | 4 | 1.16 | .582 |
| Missed class for personal | 92 | 1 | 4 | 1.50 | .805 |
| Grade Point Average | 96 | 0 | 4 | 3 30 | 1 027 |
| Skill to obtain a job | 100 | 3 | 4 | 3.84 | 368 |
| Skill to adjust to home | 00 | 1 | т 1 | 3.57 | .508 |
| Skill work with others in similar field | 98 | 2 | 4 | 3.71 | .518 |
| Skill participate in community | 98 | 1 | 4 | 3.43 | .746 |
| Importance success in own business | 97 | 1 | 4 | 3.64 | .664 |
| Importance recognition from others | 93 | 1 | 4 | 3.04 | .920 |
| Importance of influencing social values | 95 | 1 | 4 | 3.35 | .822 |
| Importance of raising a family | 94 | 1 | 4 | 3.65 | .729 |
| Importance of financial stability | 94 | 1 | 4 | 3.38 | .844 |
| Importance of helping others | 94 | 2 | 4 | 3.52 | .617 |
| Importance of writing original works | 93 | 1 | 4 | 2.02 | 1.123 |
| Importance of creating art | 93 | 1 | 4 | 2.47 | 1.138 |
| Importance of participating in | 93 | 1 | 4 | 3.42 | .742 |
| Importance of promoting racial equality | 91 | 1 | 4 | 3.00 | 1.065 |
| Importance of political affairs awareness | 91 | 1 | 4 | 2.54 | 1.068 |
| Importance of being a community leader | 93 | 1 | 4 | 2.97 | .994 |

| | Importance of encouraging others in | 96 | 1 | 4 | 3.55 | .647 |
|----------|--|----|---|---|------|-------|
| | education | | | | | |
| Tutwiler | Pursuing program reason wages | 43 | 3 | 4 | 3.84 | .374 |
| | Pursuing program reason family work in field | 42 | 1 | 4 | 2.12 | 1.152 |
| | Pursuing program reason dreams | 47 | 1 | 4 | 2.96 | 1.021 |
| | Pursuing program reason only option | 42 | 1 | 4 | 1.36 | .879 |
| | Future classes in reading and composition | 42 | 1 | 4 | 2.93 | 1.022 |
| | Future classes in art | 42 | 1 | 4 | 3.24 | .821 |
| | Future classes in finance | 41 | 1 | 4 | 3.27 | .923 |
| | Future classes business management | 45 | 1 | 4 | 3.44 | .813 |
| | Future classes in history | 42 | 1 | 4 | 2.93 | .947 |
| | Future classes in math | 41 | 1 | 4 | 2.93 | .985 |
| | Future classes in science | 41 | 1 | 4 | 3.05 | .921 |
| | Future classes in marketing | 41 | 1 | 4 | 3.29 | .901 |
| | Future classes computer programming | 43 | 1 | 4 | 3.51 | .798 |
| | Future classes in language | 43 | 1 | 4 | 3.47 | .767 |
| | Frequency in class asked questions | 47 | 2 | 4 | 3.57 | .580 |
| | Frequency in class gave presentations | 47 | 1 | 4 | 2.40 | 1.035 |
| | Frequency in class incomplete assignment | 45 | 1 | 4 | 1.62 | .886 |
| | Frequency in class discuss grade with instructor | 46 | 1 | 4 | 2.96 | .918 |
| | Frequency in class discuss career with instructor | 48 | 1 | 4 | 3.00 | 1.111 |
| | Frequency in class received feedback from instructor | 48 | 1 | 4 | 3.19 | 1.024 |

| Frequency in class worked hard | 47 | 2 | 4 | 3.43 | .683 |
|--|----|---|---|------|-------|
| Frequency in class discuss ideas with instructor | 47 | 1 | 4 | 3.23 | .937 |
| Frequency in class discuss ideas with classmates | 47 | 1 | 4 | 3.17 | .985 |
| Frequency in class discuss beliefs | 47 | 1 | 4 | 2.32 | 1.045 |
| Frequency in class discuss class with other in camp | 48 | 2 | 4 | 3.23 | .778 |
| Frequency in class discuss class with guards | 47 | 1 | 4 | 2.21 | 1.122 |
| Coursework emphasized activities memorizing facts | 47 | 1 | 4 | 3.32 | .911 |
| Coursework emphasized activities analyzing ideas | 47 | 1 | 4 | 3.26 | .871 |
| Coursework emphasized activities forming new ideas | 48 | 1 | 4 | 3.15 | .899 |
| Coursework emphasized activities making judgments | 48 | 1 | 4 | 3.06 | .998 |
| Coursework emphasized activities with new theories | 48 | 1 | 4 | 3.17 | .883 |
| Personal development in acquiring job skills | 47 | 2 | 4 | 3.55 | .686 |
| Personal development in speaking clearly | 47 | 1 | 4 | 3.40 | .876 |
| Personal development in writing clearly | 47 | 1 | 4 | 3.32 | .935 |
| Personal development in analyzing statistics | 47 | 1 | 4 | 3.06 | 1.030 |
| Personal development in solving problems | 47 | 1 | 4 | 3.21 | .977 |
| Felt inspired to think in new ways | 47 | 1 | 4 | 3.60 | .712 |

| Felt family support to | 47 | 2 | 4 | 3.57 | .715 |
|---|-----|---|---|-------|-------|
| succeed | | | | | |
| Felt instructors given | 47 | 1 | 4 | 3.45 | .829 |
| Folt contributions one | 10 | ſ | 4 | 2 1 1 | 706 |
| relit contributions are | 40 | 2 | 4 | 3.44 | ./90 |
| Falt an asymptotic to ask | 10 | 1 | 4 | 262 | 640 |
| questions | 40 | 1 | 4 | 5.05 | .040 |
| Instructors encourage to | 48 | 1 | 4 | 3.46 | .824 |
| study on own | | | | | |
| Instructors support to complete classes | 48 | 1 | 4 | 3.56 | .823 |
| Instructors use computer | 47 | 1 | 4 | 2.87 | 1.191 |
| in class | | | | | |
| Instructors discuss career goals | 48 | 1 | 4 | 3.46 | .922 |
| Hours preparing for class | 47 | 0 | 4 | 1.70 | 1.317 |
| Hours discussing | 48 | 0 | 4 | 1.65 | 1.246 |
| classwork with classmates | | | | | |
| Supportive academic success students | 47 | 1 | 4 | 3.23 | .840 |
| Supportive academic | 47 | 2 | 4 | 3.68 | 594 |
| success instructors | • / | - | • | 5100 | |
| Supportive academic | 46 | 1 | 4 | 3.63 | .711 |
| success college admin | 10 | 1 | • | 5105 | ., |
| Supportive academic | 46 | 1 | 4 | 3.61 | .802 |
| success student services | 10 | 1 | • | 5101 | .002 |
| Often discuss class with | 47 | 2 | 4 | 3.34 | .760 |
| other students | • / | 2 | | 5.51 | ., |
| Member of organizations | 48 | 0 | 1 | .12 | .334 |
| Ambassador | | · | _ | | |
| Member of organizations | 48 | 0 | 1 | .06 | .245 |
| Innovator | - | - | | | - |
| Member of organizations | 48 | 0 | 1 | .19 | .394 |
| Dean's List | · | | | - | |
| Member of organizations | 48 | 0 | 1 | .35 | .483 |
| President's List | · | | | - | |
| Member of organizations | 48 | 0 | 1 | .02 | .144 |
| NTHS | | | | | |

| Member of organizations PTK | 48 | 0 | 1 | .10 | .309 |
|---|----|---|---|------|-------|
| Goal certificate program | 42 | 1 | 3 | 2.74 | .627 |
| Goal associate degree | 40 | 1 | 3 | 2.10 | .709 |
| Goal transfer to two-year college | 39 | 1 | 3 | 1.95 | .759 |
| Goal transfer to four-year college | 41 | 1 | 3 | 2.02 | .935 |
| Goal obtain job skills | 43 | 1 | 3 | 2.74 | .581 |
| Goal personal enjoyment | 42 | 1 | 3 | 2.81 | .455 |
| Goal occupy time | 40 | 1 | 3 | 2.10 | .841 |
| Recommend taking classes | 45 | 2 | 4 | 3.91 | .358 |
| Rate education experience at ISTC | 45 | 2 | 4 | 3.73 | .495 |
| Missed class for health reasons | 43 | 1 | 4 | 1.88 | .762 |
| Missed class for disciplinary reasons | 41 | 1 | 2 | 1.07 | .264 |
| Missed class didn't want to attend | 42 | 1 | 2 | 1.21 | .415 |
| Missed class for personal reasons | 43 | 1 | 4 | 1.58 | .626 |
| Grade Point Average | 44 | 0 | 4 | 3.57 | 1.065 |
| Skill to obtain a job | 46 | 2 | 4 | 3.93 | .327 |
| Skill to adjust to home | 46 | 1 | 4 | 3.63 | .679 |
| Skill work with others in similar field | 46 | 3 | 4 | 3.91 | .285 |
| Skill participate in community | 46 | 2 | 4 | 3.54 | .721 |
| Importance success in own business | 46 | 1 | 4 | 3.28 | .958 |
| Importance recognition from others | 46 | 1 | 4 | 3.02 | .977 |
| Importance of influencing social values | 45 | 1 | 4 | 3.33 | .798 |
| Importance of raising a family | 45 | 1 | 4 | 3.71 | .727 |

| Importance of financial stability | 45 | 2 | 4 | 3.51 | .626 | |
|---|----|---|---|------|-------|--|
| Importance of helping others | 45 | 1 | 4 | 3.47 | .726 | |
| Importance of writing original works | 45 | 1 | 4 | 1.76 | .883 | |
| Importance of creating art | 45 | 1 | 4 | 2.27 | 1.074 | |
| Importance of participating in community | 46 | 1 | 4 | 3.07 | 1.020 | |
| Importance of promoting racial equality | 46 | 1 | 4 | 2.72 | .981 | |
| Importance of political affairs awareness | 45 | 1 | 4 | 2.51 | 1.121 | |
| Importance of being a community leader | 45 | 1 | 4 | 2.73 | 1.136 | |
| Importance of encouraging others in education | 45 | 1 | 4 | 3.47 | .944 | |

APPENDIX F.

ISEQ Variables With Coding

| Category/Variable | Coding/Scale |
|--|-----------------------|
| Program Engagement | |
| Current program of study: | Dichotomous |
| Automotive body repair | 0= No |
| Automotive mechanics | 1=Yes |
| Barbering | |
| Cabinetmaking | |
| Carpentry | |
| Commercial truck driving | |
| Cosmetology | |
| Diesel mechanics | |
| Electrical technology | |
| HVAC | |
| Industrial systems technology | |
| Logistics and supply chain technology | |
| Masonry | |
| Office information systems | |
| Plumbing | |
| Swift coding | |
| Upholstery | |
| Welding | |
| Other | |
| | |
| Program change | Dichotomous |
| | 0 = No |
| | 1 = Yes |
| Reason for pursuing program | 4- point Likert Scale |
| The skills I learn will lead to good wages | 1 = Disagree Strongly |
| Other family members work in this field | 2 = Disagree Somewhat |

| Category/Variable | Coding/Scale |
|--|-----------------------|
| I always dreamed of doing something in this field | 3 = Agree Somewhat |
| This was my only option as a student | 4 = Agree Strongly |
| | |
| | |
| | |
| | |
| Interest in classes | 4- point Likert Scale |
| Reading, writing, and composition | I = Disagree Strongly |
| Art | 2 = Disagree Somewhat |
| Finance | 3 = Agree Somewhat |
| Business management | 4 = Agree Strongly |
| History | |
| Math | |
| Science Manhating | |
| Marketing | |
| Computer programming | |
| roreign language (ex. Spanisn) | Dichotomous |
| Momborship of organization | $O = N_{C}$ |
| Ambagadara | 0 - 100 1 - Vac |
| Innovators | 1-1es |
| Dean's List | |
| Deal 5 List Dresident's List | |
| National Technical Honor Society | |
| Phi Theta Kanna | |
| Thi Thea Kappa | |
| Academic engagement | |
| | 4-point Likert Scale |
| During your time at ISTC, how often have you: | 1 = Never |
| Asked questions in class | 2 = Sometimes |
| Given a presentation in class | 3 = Often |
| Attended class without finishing the assignment | 4 = Very Often |
| Talked to your instructor about your grade | - |
| Talked about your career plans with your instructor or an | |
| advisor | |
| Received feedback from your instructors about your | |
| grades or assignments | |
| Worked harder than you thought you could on assignments | |
| Discussed ideas with instructors | |
| Discussed ideas with other classmates | |
| Engaged in relevant discussions with students about religion, | |
| politics, or personal beliefs | |
| Discussed your lasses with other people living in our facility | |
| who do not attend classes | |
| Talked about your classes with guards | |

| Catagory | Variala 1a |
|----------|------------|
| Calegory | variable |

| Coursework emphasized mental activities: Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form Analyzing the basic elements of an idea, experience, or theory Forming a new idea or understanding from various pieces of information Making judgments about the value or soundness of information, arguments, or methods Applying theories or concepts to practical problems in new situations | 4-point Likert Scale 1 = Never 2 = Sometimes 3 = Often 4 = Very Often |
|--|---|
| Personal development in the following areas: Acquiring job- or work- related knowledge and skills Speaking clearly and effectively Writing clearly and effectively Analyzing numerical and statistical information Solving complex real- world problems | 4-point Likert Scale 1 = Very little 2 = Some 3 = Quite a bit 4 = Very much |
| Frequency students felt: Courses inspired to think in new ways Family support to succeed Instructors provided feedback to improve in class Contributions are valued in class Instructors encourage asking questions and participating Frequency instructors and college do the following: Encourage you to study on your own | 4-point Likert Scale 1 = Never 2 = Sometimes 3 = Often 4 = Very Often 4-point Likert Scale 1 = Never 2 = Sometimes |
| Give you the support you need to complete classes Use computers in class Discuss career goals with you Hours spent: Preparing for classes by studying, reading, doing homework Discussing classwork with other classmates | 3 = Often 4 = Very Often 5-point scale 1 = none 2 = 1 to 5 3 = 6 to 10 4 = 11 to 20 5 = more than 21 |
| | |

| Category/Variable | Coding/Scale |
|---|-----------------------|
| Supportive/friendly groups are to student academic success: | 1 = very little |
| Other students | 2 = some |
| Instructors | 3 = quite a bit |
| College administrators | 4 = very much |
| Student Support Services | 2 |
| | 3-point scale |
| Reasons/goals for attending | 1 = not a goal |
| Complete a certificate program | 2 = secondary goal |
| Obtain an associate degree | 3 = primary goal |
| Transfer to a 2-year college after release | 1 90 |
| Transfer to a 4-year college after release | |
| Obtain or update job-related skills | |
| Self-improvement/personal enjoyment | |
| To have an activity to occupy your time | |
| | |
| | 4-point Scale |
| Discuss learning with peers | 1 = Never |
| | 2 = Sometimes |
| | 3 = Often |
| | 4 = Verv Often |
| | |
| | 4-point Likert Scale |
| Recommend classes to others | 1 = Disagree Strongly |
| | 2 = Disagree Somewhat |
| | 3 = A gree Somewhat |
| | 4 = A gree Strongly |
| | + Agree Subligiy |
| | 4- point Scale |
| Evaluate overall experience at ISTC | 1 = Poor |
| | 2 = Fair |
| | 3 = Good |
| | 4 = Excellent |
| | |
| | 4-point scale |
| Reasons for missing class | 1 = Never |
| Health reasons | 2 = Sometimes |
| Disciplinary Reasons | 3 = Often |
| Did not want to attend | 4 = Very Often |
| Personal Reasons | - |
| | |
| | |

Aspirations

| Category/Variable | Coding/Scale |
|---|-------------------------|
| Personal importance of the following: | 1 = Not Important |
| Becoming successful in own business | 2 = Somewhat Important |
| Recognition of colleagues and other for my work | 3 = Important |
| Influencing social values | 4 = Very Important |
| Raising a family | |
| Being well off financially | |
| Helping others who are in difficulty | |
| Writing original works like poems or novels | |
| Creating artistic works | |
| Participating in my community | |
| Helping promote racial equality | |
| Keeping up to date with political affairs | |
| Becoming a community leader | |
| Encouraging others to participate in educational programs | |
| | 0 = I do not have a GPA |
| Grade point average | 1 = D or lower |
| | 2 = C |
| | 3 = B |
| | 4 = A |
| | |
| | 4-point scale |
| Skill development will help with the following after release: | 1 = Disagree Strongly |
| Obtain a job | 2 = Disagree Somewhat |
| Adjust to returning home | 3 = Agree Somewhat |
| Work with others in a similar field | 4 = Agree Strongly |
| Participate in community events | c c. |
| | 4-point scale |
| Future contact by college about the following: | 1 = Disagree Strongly |
| Employment opportunities | 2 = Disagree Somewhat |
| Opportunities for mentoring other students | 3 = Agree Somewhat |
| Continuing education opportunities at other colleges | 4 = Agree Strongly |
| | |
| | |
| Background characteristics | |

| Sex $1 = Female$ | |
|--------------------------------|--------------|
| 2 = Male | |
| 3 = I prefer no | t to respond |
| Racial identity 7- point scale | for |
| | |
| I = American | Indian or |
| Native Americ | an |
| 2 = Asian, Asi | an American |
| or Pacific Islan | nder |
| 3 = Native Ha | waiian |

| Category/Variable | Coding/Scale |
|-------------------------------------|--|
| | 4 = Black or African |
| | American, Non-Hispanic |
| | 5 = White, Non-Hispanic |
| | 6 = Hispanic, Latino, |
| | Spanish |
| | 7 = Other |
| | 8- point scale |
| lighest level of education prior to | 0 = None |
| Entering ISTC | 1 = High School Diploma 2 = GED |
| | 3 = Some College/no degree |
| | 4= Vocational/Technical |
| | 5 = Associate Degree |
| | 6 = Rachelor's Degree |
| | 7 = Master's Degree |
| | 8 = Doctorate Degree |
| | |
| Iother's educational attainment | 9-point scale |
| | 0 = None |
| | 1 = High School Diploma |
| | 2 = GED |
| | 3 = Some college with no |
| | degree |
| | 4 = Vocational/Technical |
| | Certificate |
| | 5 = Associate Degree |
| | 0 - Bachelor's Degree |
| | 7 - Master S Degree 8 - Doctorate Degree |
| | 9 = Unknown |
| ather's educational attainment | 9-noint scale for descriptive |
| | analysis |
| | $0 = N_{0}$ |
| | 1 = High School Diploma |
| | 2 = GED |
| | 3 = Some college with no |
| | degree |
| | 4 = Vocational/Technical |
| | Certificate |
| | 5 = Associate Degree |

| Category/Variable | Coding/Scale |
|---|-----------------------|
| | 6 = Bachelor's Degree |
| | 7 = Master's Degree |
| | 8 = Doctorate Degree |
| | 9 = Unknown |
| Original court ordered prison sentence | 4-point scale |
| | 1 = 0.5 years |
| | 2 = 6-10 years |
| | 3 = 11-20 years |
| | 4 = 21 or more years |
| Years left in sentence, not counting parole | |
| | 4-point scale |
| | 1 = 0-2 years |
| | 2 = 3-5 years |
| | 3 = 6-8 years |
| | 4 = 9-10 years |