Community college workforce preparation and career services: An exploration of efficacy from
students' perspectives

by

Amy Marie Smith

B.S., Sonoma State University, 2005
M.A., Adams State University, 2014

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF EDUCATION

Department of Educational Leadership
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2020

Abstract

Exploring the effectiveness of workforce development programming and services provided to students in community colleges in the United States is critical when considering the potential impact on community stakeholders and the economy. Not only is workforce development a part of the mission of community colleges, research indicates that obtaining gainful employment is one primary motivation for students' participation in higher education. Further, labor market data show demand for a workforce that has postsecondary training in various industry sectors. However, there is limited research available that examines the employment readiness of students who have participated in workforce development programs and services offered by colleges within one of the nation's largest community college systems, located in California. There is even less information available when examining this area through the perspective of students. Therefore, the purpose of this study was to explore the experiences and satisfaction of a sample of California community college students who are nearing completion of career technical education programs. Student participation in community college career services and their perceived attainment of critical employability skills is examined. Results of this study offer insights from students about community college career guidance services, usefulness of career service centers, and beliefs about their readiness to enter employment. Findings of this research suggest that while students believe they are prepared to enter the workforce, there is potential for community college workforce development programs to expand integrated and comprehensive employment preparation services to more effectively serve a greater number of students.

Keywords: Workforce development, career technical education, employment readiness, community college, student perception, postsecondary education

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Dedication

I dedicate this dissertation to my family. To my parents and brother, who have always buoyed my endeavors and taught me anything is possible with faith and hard work. To my husband, who keeps me balanced and provides unsurpassed care and support. Finally, to my son, who is the miracle that came in the middle of this journey and inspires me in ways I never imagined.

Chapter 1- Introduction

Employment preparation and job placement outcomes of students completing college programs are essential metrics to evaluate postsecondary education and its role in advancing workforce and economic development (Applegate, 2019; Baird & Parayitam, 2017; Harmon & Ridley, 2014). If college program graduates cannot secure gainful employment, it can be detrimental to their personal economic mobility and have a negative impact on the greater economy (Serino, 2017). This study aimed to explore the efficacy of workforce development programs and services being provided by a sample of community colleges in California. The research was conducted through the lens of students' perspectives.

Statement of the Problem

Preparing students for entry into the workforce is a common mission of community colleges across the nation (Baime & Baum, 2016). In California, for example, community colleges "are the primary system for delivering career technical education and workforce training to Californians, preparing individuals for skilled jobs in an ever-changing labor market" (California Community Colleges, 2020, para. 1). However, a national study found that many college students feel under-prepared to transition into employment upon program completion (Gallup Inc., 2017). Research findings have also indicated that while students encounter challenges with making career decisions in college, "few engage the career services offered by their academic institutions for help with their difficulties" (Bridges, 2014, p. 14). Additionally, employers have reported discontent with the level of skills possessed by recent college program graduates (Hart Research Associates, 2015; National Association of Colleges & Employers, 2016). Thus, it is possible that community colleges are failing to achieve the workforce

development component of their mission if both students and employers are discontented with employment preparation outcomes.

The problem of workforce development also comes at a cost, as students and taxpayers contribute over $62 billion per year to community colleges nationwide (Association of American Colleges and Universities, 2014). Specific to recent public investment in workforce preparation, in 2018 the federal government expanded Perkins Act funding by 7% to approximately $1.28 billion annually to be used for secondary and postsecondary career technical education (Public Policy Institute of California, 2018). In 2016, California earmarked approximately $200 million annually to the Strong Workforce program deployed throughout California community colleges (Public Policy Institute of California, 2018). Furthermore, the majority of career technical education funding for California community colleges is provided by state apportionment (Public Policy Institute of California, 2018), which is generated primarily through taxes.

Compounding this problem is a minimal body of research in the employment readiness and employment outcomes of community college students. Information about student confidence in their ability to secure employment and their success in becoming employed is not readily available and can be difficult to obtain. Radwin and Horn (2014) explained, "As the nation's largest provider of postsecondary education, community colleges are instrumental to workforce development, but measuring student outcomes is challenging after students have left for the workplace" (p. 1). However, it cannot be assumed that because students have met college program completion requirements that they will be able to find and enter employment or meet employer needs (Lumina Foundation, 2015). Researchers have found that "a disconnect exists today between educators and industry leaders, with little discussion and no agreement on the skill sets that are essential to successful employment" (IBM Institute for Business Value, 2015,

p. 1). College program outcomes that are potentially misaligned with employer needs make data collection and evaluation in this area that much more necessary, especially if community college performance is to be understood and improved.

Background of the Problem

The complex nature of the community college mission can place a divide between liberal arts programs and career technical education programs. Sych (2016) explained, "even though positive changes have been made in promoting vocational education and training, there still remains an undercurrent of negative discourse" (p. 45). This divide also contributes to an environment where not all educational practitioners see that they may have a role in helping students to achieve employment. O'Banion (2015) stated, "getting educators to agree on a common curriculum that breaches the divide between workforce education and liberal education may be one of the greatest challenges of our time" (para. 6). Still, the value of a college degree could significantly increase if colleges focused more on teaching their students critical professional skills (Chamorro-Premuzic & Frankiewicz, 2019).

A lack of prioritization in capturing and evaluating key employment preparation and outcome metrics is another problem area for community colleges. For several years, the focus of community colleges and other higher education institutions has been ensuring students from all backgrounds have access to postsecondary opportunities (Bragg & Durham, 2012). While access is critical, this focus may have shifted attention away from other important performance indicators for colleges and their students. Engle (2016) reported, "measures accounting for what happens to students after college also have not been the major focus of recent initiatives, with notable exceptions" (p. 20). Evaluating employment outcomes remains a lower priority overall, especially because many factors beyond a college's reach contribute to what happens to a student

post-completion (Palmer, 2015). However, accounting for students' ability to use college credentials for accessing gainful employment is becoming harder for higher education to escape. Engle (2016) explained that "despite concerns from institutions about focusing too much on the economic value of certificates and degrees, prospective students and the public consistently report that earning a college degree is essential to quality employment and earnings prospects" (p. 16).

Finally, higher education tends to operate in a culture of tradition and bureaucracy versus entrepreneurialism (Cohen & Kisker, 2010). However, responsiveness to evolving labor market needs, and rapidly changing technologies requires a nimble environment that is open to change. Chan (2016) stated:

> To meet current societal needs, higher education institutions must redefine and reinvent college curriculum, pedagogy, and assessment policies to ensure that all students have the desired attributes and competencies to contribute to the global economy and engage effectively in democracy. (p. 2)

Therefore, deeply rooted institutional, cultural factors, in addition to divisive college programming and lower prioritization of student employment outcomes, may contribute to stifling optimum workforce development programs and services.

Significance of the Problem

Career preparation training and services provided by community colleges are vital to meeting an ever-growing demand for trained workers (Jenkins, 2014). The demand is particularly great in California. Johnson, Cook, and Mejia (2017) reported that California will need over one million additional college-educated workers by 2030. Therefore, community colleges could share a major portion of responsibility for workforce shortages if program

graduates are inadequately equipped to find and enter employment. Moreover, community colleges may encounter decreases in public and private investments if they do not strategically position themselves (in reality and perception) as economic assets that successfully meet workforce demands through providing students useful career training and services. On the economic development side, when academic and industry leaders were asked about the relevance of higher education in a national study, only 49% believed it was contributing to economic competitiveness and expansion (IBM Institute for Business Value, 2015). On the student preparation side, another national study reported that less and 20% of undergraduates utilized their institution's career services for help with the transition into employment (Gallup Inc., 2017). Thus, both internal and external factors may impact community colleges' position as workforce providers in the marketplace. Jacobs and Dougherty (2006) explained, "although policymakers and the public see workforce development as a fundamental mission of community colleges, it faces an uncertain future because of structural changes in the economy and the emergence of new competitors" (para. 1).

Purpose of the Study

The purpose of this study was to explore students' perceptions of the effectiveness of workforce preparation programming and services they received at a sample of four California community colleges. This research specifically examines student engagement with career service supports that complement major coursework as well as student attainment of critical employability skills. This area of study is important when considering the mission of community colleges and students' motivation for attending community college. Davis (2013) explained, "community colleges play an essential role in economic development with the aim of preparing the local, regional, and global workforce with job skills for the workplace" (p. 3). Additionally,

students attend community college with the expectation that specialized training and programming will lead to expanded employment opportunities (Rosenbaum, Becker, Cepa, & Zapata-gietl, 2016).

Measuring the effectiveness of employment preparation is complicated due to gaps in available data. Specifically, there is minimal information regarding California community college students' satisfaction with college employment preparation programs and services. Radwin and Horn (2014) stated, "colleges need these data to tailor existing programs to improve outcomes for students and to consider restructuring or eliminating programs with low success rates" (p. 2). Therefore, it was intended that this study would produce information that expands the understanding of students' perceptions about the employment preparation they received from a California community college. This research also aimed at informing community colleges about how they may better achieve the workforce development component of their mission through the programs and services they offer. Ultimately, the goal was to contribute to community colleges "starting with the end in mind, working with education providers at the next level and with employers to ensure that program learning outcomes are clearly aligned with the requirements for success in further education and careers" (Jenkins, 2014, para. 1).

Significance of the Study

This study emphasized the pivotal role that community colleges play in developing a qualified workforce, as evidenced by the number of students who enroll in community college and the predicted shortfall of prepared workers. In Fall 2016, nearly 40% of undergraduate students attended a public or private two-year college nationwide (Community College Research Center, 2018). Further, there were 2.4 million students enrolled in California community colleges in the 2015-16 academic year (California Community Colleges, 2018). In addition to notable

participation rates, community colleges are a mechanism for improving the socioeconomic mobility of all students, including those from disadvantaged backgrounds. The Public Policy Institute of California (2017) reported that "a solid majority of California's future college-age population will come from groups that have been historically underrepresented in higher education…research has shown that this demographic shift could be a major contributor to the state's future workforce skills gap" (p. 1). Thus, this study aimed to add to a body of research, promoting the student voice in informing a field of practice that has an extensive impact on the livelihood of individuals as well as the health of local, national and global economies. Additionally, this study provided results and recommendations that may be used to guide California community colleges' policies and practices, which prioritize career services and associated resource allocations.

Primary Research Questions

Research Question One: What are students' perceptions of the effectiveness of their community college in preparing them to enter employment?

Research Question Two: What are students' perceptions of the career services they have received from their community college?

Research Method

This study used a quantitative approach to examine students' perceptions about their readiness to enter employment and the effectiveness of the career services they received at a California community college. The instrument for data collection was a survey with close-ended questions, distributed and collected electronically. Survey participants were selected using a purposeful sample of California community college students in career technical educations programs who were near program completion. Further, published labor market information was

reviewed to identify the most in-demand professional skills requested by employers, which were then incorporated into student survey questions. Descriptive analysis was used to summarize data findings, and inferential analysis was used to identify potential relationships between various student characteristics and their perceived receipt of skill development and services.

Theoretical and Conceptual Framework

Grant and Osanloo stated, "the theoretical framework is the foundation from which all knowledge is constructed for a research study" (p. 12). A theoretical lens that frames this area of study is Maslow's theory of motivation, which describes an individual's hierarchy of needs (Maslow, 1943). Motivation theory provides meaning to the subject matter from students' perspectives, substantiating their purposes for attending community college as related to future employability and economic self-sufficiency. Building upon the theoretical framework, Grant and Osanloo (n.d.) described a conceptual framework as a structure made up of "concepts, assumptions, and beliefs that support and guide the research plan" (p. 17). Career pathways were the conceptual framework that guided this research as they married the ideology of education with the principles of economic and workforce development. Fein (2012) explained, "In the career pathways framework, employment is not simply the desired outcome of training – it is an integral feature of the intervention model and underlying theory of change" (p. 9). Therefore, motivation theory and the concept of career pathways were considered throughout this study, including in the development of research questions, analysis of findings, and recommendations by the researcher.

Limitations, Assumptions, and Delimitations

Participants in this study were from a small sample of California community colleges in for-credit career technical education programs, and therefore, results may not be generalizable to

other workforce development programs or other higher education institutions within or outside of California. Further, the researcher has been employed by a community college, responsible for the workforce and career services, and currently works in the workforce development profession. While this background brings expertise and context to the study, it also presents an opportunity for bias to appear in the research design and analysis of findings. To minimize bias, the researcher followed a well-defined research protocol and thoroughly explained data collection and analysis processes (Smith & Noble, 2014). In addition, the survey instrument was tested and refined through eliciting feedback about its content from educational professionals and students. Another limitation was the use of an electronic survey distributed by email for data collection. It was assumed this method would reduce the number of respondents as not all qualified participants may be reachable or responsive. It was further assumed that students who do participate would be honest in their survey responses. This study explored the employment preparation of a convenience sample of California community college students. Participants were assumed to be near program completion as defined by this study's participation criteria. Further, responses were collected voluntarily through an online survey and may not be representative of all students enrolled in the sample colleges.

Definitions of Key Terminology

The researcher utilized the following operational definitions of terms found within this study.

Career services and supports: Employment preparation services and supports offered to students through academic affairs and student affairs that are in addition to career technical training. Such services include but are not limited to career exploration, job development, work-

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based learning coordination, resume development, interview preparation, and soft and professional skill development.

Career technical education: "Provides students of all ages with the academic and technical skills, knowledge and training necessary to succeed in future careers and to become lifelong learners" (Advance CTE, n.d., para. 1). Career technical education is a type of workforce development program.

Student perception: A students' point of view regarding a subject.

Student satisfaction: Attitude measured by an assessment of a students' experience with and outcomes of their educational programs and services (Weerasinghe, Lalitha, & Fernando, 2017).

Workforce development: Workforce development involves programs and services intended to create a skilled labor force by preparing students for employment and career advancement. It is also commonly used as an umbrella term that encompasses many types of programs and services, including career technical education and occupational training.

Workforce development program: A for-credit career technical education program leading to a certificate and/or associate degree at a community college.

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Chapter One Summary

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The performance of California community colleges in the area of workforce development was an area worth further study given the mission of these higher education service providers and the expectations of students and their future employers. This chapter provided an overview of the study, including the problem being addressed, the purpose of the study, and the significance of the study. Maslow's motivational theory and the concept of career pathways were introduced as the framework that guided this study. Research limitations, assumptions and

delimitations were also presented. Finally, this chapter provided operational definitions for key terminology used throughout the study.

Organization of the Dissertation

Chapter One of the dissertation presented an overview and organization of the study. Chapter Two provides a detailed literature review of the practice of workforce development at community colleges, including a foundational theoretical framework, mission of practice, expectations of practice, gaps in practice, and promising practices. Chapter Three features the research methodology utilized for the study. Chapter Four details the research findings. Finally, Chapter Five offers a conclusion to the study with a discussion of the findings, implications of the study, and researcher recommendations.

Chapter 2 – Literature Review

A review of the literature was necessary to establish a research framework and educate the researcher in the area being studied (Roberts, 2010). The literature reviewed in this chapter provided content relevant to postsecondary workforce development and is organized in these themes: (a) theoretical and conceptual frameworks, (b) community college workforce mission and accountability, (c) students' expectations for career preparation, (d) employers' expectations for prepared workers, and (e) the practice of career services. These thematic areas support this research by exploring the need for workforce development from multiple viewpoints and considering how community colleges should be delivering career services to meet their mission. Additionally, the literature uncovers gaps in research, which helps to substantiate further the area of study selected by the researcher.

Theoretical and Conceptual Frameworks

Two lenses that frame this area of study are Maslow's theory of motivation and the concept of career pathways. Motivation theory provides meaning to the subject matter from the students' perspective, validating their purpose for attending college as related to future employability and economic self-sufficiency. The concept of career pathways identifies the common academic and support service components of workforce development delivery systems. This framework supports the mission of community colleges with a blueprint of how to produce prepared and qualified talent.

Maslow's Theory of Motivation

Maslow's theory of motivation provides the definition and prioritization of human desires categorized by basic needs, physiological needs, and self-fulfillment needs (Bradshaw, 2016). Specifically, human survival and contentment lie in meeting demands in the areas of

physiological, safety, belonging and love, esteem, and self-actualization (Maslow, 1943; McLeod, 2018). Maslow (1943) asserted that as each level of need is met starting with physiological, individuals then advance to the next level in search of further satisfaction.

Maslow's theory of motivation is applicable to student participation in higher education because education is a means to achieving employment, and employment is a means to achieving fulfillment across Maslow's needs spectrum (Neto, 2015). Sivakumar and Sarvalingam (2010) stated, "education is one of the basic needs for human development and to escape from poverty" (p. 20). As the rate of jobs requiring some post-secondary training continues to grow, survival, and fulfillment found through employment becomes more dependent on an individual's college outcomes. For example, it is expected that in 2020, nearly 70% of jobs in California will require some level of college program completion (Georgetown Center on Education and the Workforce, n.d.). Post-secondary credentials have also been found to affect earning potential. The National Center for Education Statistics (2018) reported, "for young adults ages 25–34 who worked full time, year-round, higher educational attainment was associated with higher median earnings; this pattern was consistent from 2000 through 2016" (para. 4). Thus, educational attainment is a leading factor impacting an individual's employment and economic stability (Brundage, 2017), which contributes to their overall physical and mental well-being (Schiller, 2017).

Career Pathways Conceptual Framework

The concept of career pathways serves as a framework for identifying the critical features of this area of study. In defining career pathways, Fein (2012) explained, "its central thesis is that instruction should be organized as a series of manageable and well-articulated steps, accompanied by strong supports and connections to employment" (p. ii). Perhaps most critical to the concept of career pathways is that they culminate in industry-recognized credentialing, which

serves as evidence that a student possesses the knowledge and skills needed to enter the workforce in their respective field of study (Lumina Foundation, 2015).

Career pathways are not a foreign concept to contemporary educational practice. It is found within three federal laws, the Higher Education Act, the Workforce Innovation and Opportunity Act, and the Carl D. Perkins Act, which collectively define career pathways as:

A combination of rigorous and high-quality education, training, and other services that: Align with the skills needs of industries in a state or regional economy; Prepare an individual to be successful in a full range of secondary or postsecondary education, including Registered Apprenticeships; Include counseling to help individuals achieve their education and career goals; Include, as appropriate, education offered concurrently with and in the same context as workforce preparation activities and training for a specific occupation or occupational cluster; Organize education, training, and other services to meet the particular needs of an individual in a manner that helps accelerate their educational and career advancement; Enable an individual to attain a secondary school diploma or equivalent, and at least one recognized postsecondary credential; Help an individual enter into or advance within a specific occupation or occupational cluster. (Cielinski, 2019)

Specific to California, the California Community College Strong Workforce program task force recommends that all community colleges within the system "develop and broadly publicize industry-informed career pathways that prepare students for jobs needed within the regional labor market" (California Community Colleges, 2015, p. 8). Hence, career pathways are well-defined and a broadly recognized framework for workforce development.

The core principle of the career pathways framework is that training and preparation result in actual employment (Fein, 2012; Kazis, 2016). Cahill (2016) explained that "career pathways models structure education, training, and career advancement in a seamless continuum across secondary and postsecondary education, workforce institutions, and employers" (p. 4). While technical training for employment is essential in the career pathways framework, for the purpose of this study, attention is given to the career service supports that complement the technical preparation offered through coursework. The Department of Labor (n.d.) defines career pathway employment assistance to include workforce readiness preparation, pre-employment connections to industry, job search assistance, and job retention skills. Career service functions also may include the cultivation and coordination of work-based learning experiences, which bridge classroom and real-world experiences (Cahill, 2016) and have been proven as reliable predictors of future employment for special student populations (United States Federal Partners in Transition, 2015). Further, employment readiness and security are dependent on the development of non-cognitive skills, including workplace and personal effectiveness competencies (U.S. Department of Labor, n.d.). Bjorklund-Young (2016) stated, "studies across the fields of education, economics, and psychology indicate that non-cognitive skills predict a variety of adult outcomes, including academic achievement, employment, financial stability, criminal behavior, and health" (p. 2).

Community College Workforce Mission and Accountability

United States community colleges have a diverse mission, with workforce development being a prominent element since their inception in the early 1900s (Bahr, 2013; Cohen & Brawer, 2014). By the 1930s, an emphasis on providing occupational training was widely accepted by community college professionals (Trainer, 2015). As explained by Trainer (2015),

"forced to compete with better-known and better-funded institutions for liberal arts students, junior-college educators began to look beyond their role in preparing students for transfer, and instead imagined a position for themselves as vocational trainers" (para. 8). Currently, community colleges are widely considered prime providers of occupational education, and they offer credentials in a variety of professional subject areas (Cohen & Brawer, 2014; Dougherty, Lahr, & Morest, 2017).

Yott (n.d.) asserted that community college mission statements should "inform, inspire, and potentially shape positive student trajectories, post-degree completion" (p. 2). The purpose of an institutional mission is important as it applies to what happens to a student while at the college and beyond. The California community college system includes a specific workforce component in its statewide mission, stating that they will "advance California's economic growth and global competitiveness through education, training, and services that contribute to continuous workforce improvement" (California Legislative Information, n.d., para. 6). Comprised of 115 colleges, the California Community College system also defines itself as "the nation's largest workforce development system" (California Community Colleges, 2019, para. 1). Further, this system has recently been infused with recurring state funding toward their Strong Workforce program, which is to provide "more and better career technical education to increase social mobility and fuel regional economies with skilled workers" (California Community Colleges, 2019, para 1). The Strong Workforce program also introduces a new performance metric to California community colleges, requiring funding recipients to report on the employment outcomes of students who participate in funded programs (California Community Colleges, 2015). Historically, there have been gaps in gathering, evaluating, and reporting this type of data (Cowan, 2015; Palmer, 2015).

The need for California community colleges to deliver on the workforce aspect of their mission is critical when anticipating that California will need over one million additional college-educated workers by 2030 (Johnson, Cook, & Mejia, 2017). Additionally, Kress and de los Santos (2014) stated, "as many research studies have well documented, educational attainment is directly correlated to income earning potential and is one of the keys to increasing economic prosperity opportunities in our communities" (p. 1). However, accountability related to workforce development is often challenging due to the multi-faceted mission of community colleges (Bahr, 2013). Emphasis on workforce development outcomes can become minimized or lost when considering other postsecondary performance metrics related to access completion and transfer. Jacoby (2017) explained, "too many existing incentives point in the wrong direction, encouraging colleges to focus on an academic mission at the expense of workforce education" (p. 1). There is also hesitancy to expand accountability in this area as many factors can influence employment outcomes, and colleges do not have much control over what happens with students post-completion (Johnson et al., 2017; Palmer, 2015). Regardless, community colleges cannot ignore their role as contributors to an economic ecosystem, and the attainment of their mission is not exclusive to what students do while attending college but extends to how students succeed in the workforce after graduation (Arnold, 2018; Cowan, 2015; Wyner, 2014).

Students' Expectations for Career Preparation

Students pursue postsecondary education for a variety of reasons, with a growing majority indicating an intent to gain better employment and economic self-sufficiency (Eagan et al., 2017; Fishman, 2015). One study found that nationally, nearly 90% of students indicate that getting a good job is an important factor in their attending college (Gallup Inc., 2017). Chamorro-Premuzic and Frankiewicz (2019) explained, "more and more students are spending

more and more money on higher education, and their main goal is largely pragmatic: to boost their employability and be a valuable contributor to the economy" (para. 9). Financial factors such as increasing costs of living, limited parental support, and college expenses and debt are propelling students toward educational options that lead to employment (Arnold, 2018; Fishman, 2015). Additionally, because of the open-door access provided by community colleges, students who attend these institutions are often from lower socioeconomic backgrounds or are those needing upskilling and retraining for employment (Dougherty et al., 2017). Despite these needs and expectations, students are not always satisfied. Rosenbaum et al. (2016) stated, "students, enter community college expecting that it will lead to good jobs, but they lose confidence in college when they see no job-search or career support" (p. 534). Understanding students' motivations and expectations of their college journey can help educators expand effectiveness in helping them with successful career planning and preparation (Freeman, Lenz, & Reardon, 2017).

Gaps in available information may limit a community college in its ability to be introspective about their effectiveness in serving students. Rosenbaum et al. (2016) stated, "research often focuses on how students fail to meet college expectations, but it rarely asks how colleges fail to meet students' expectations" (p. 1). As a college's foremost consumer, students' purposes for attending college and their associated needs should be at the forefront of programming and services (Bruno, 2018; McClenney & Arnsparger, 2012). To meet the needs of students, institutional programs and service redesign may be necessary. Baird and Parayitam (2017) argued that, "college graduates know the value of higher education but their outcry about their inability to land meaningful jobs after graduation should be enough for higher education institutions to change" (p. 152). Nonetheless, a student-first approach is not necessarily found on

all college campuses. Farnum and Farnum (2011) expounded, "frequently institution's cultural norms require that students adjust and conform to our way of doing things regardless of whether those ways are effective and aligned with student needs" (p. 3).

Employers' Expectations for Prepared Workers

Similar to students, employers are another stakeholder who expect recent college graduates to have the technical and non-cognitive skills required to secure employment and be successful in the workplace (Baird & Parayitam, 2017; National Association of Colleges and Employers, 2016). Skill needs may differ across industry sectors; however, there are common characteristics that are in-demand for most occupations. According to the National Association of Colleges and Employers (2017), the top 10 attributes employers desire to see on a resume are (1) problem-solving, (2) teamwork, (3) communication, (4) leadership, (5) work ethic, (6) analytical/quantitative, (7) initiative, (8) detail-oriented, (9) flexibility, and (10) technical. Other highly regarded soft skills include adaptability, punctuality, and critical and creative thinking (National Network of Business and Industry Associations, 2014). Additionally, it has been reported that employers "highly consider work experience when hiring new graduates" (National Association of Colleges and Employers, 2017).

Community colleges are well-positioned to satisfy industry demands for skilled workers. Mann (2017) shared, "amid persistent concerns about the well-documented skills gap, community colleges have the potential to provide low-cost, high-quality education and training to students" (p. 2). Further, research shows that employers do not necessarily favor job applicants from more expensive for-profit colleges than those from community colleges (Darolia, Koedel, Martorell, Wilson, & Perez-Arce, 2014). However, while colleges should be a ready-source for prepared workers, employers have reported dissatisfaction with recent college

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graduates and their level of workplace skills (Baird & Parayitam, 2017; Hart Research Associates, 2015). McGarry (2018) explained, "colleges are not succeeding at imparting their graduates with an array of skills that employers demand of prospective workers" (para. 9). Notable skills that graduates are lacking include communication, critical thinking, real-world application of skills, and teamwork (Baird & Parayitam, 2017; Hart Research Associates, 2015; Williams, 2015).

Colleges are best-suited to meet employer expectations by integrating industry input into curricula and services, being adaptable to evolving labor market needs, and prioritizing employers as the end-users of the training provided to students (Benz, 2018; Corporation for a Skilled Workforce, n.d.). This level of integration requires strong partnerships between colleges and local employers. The Aspen Institute (n.d.) shared:

> As colleges reimagine their roles for the 21st century, they are committing to work with business and industry to provide trained and adaptable talent. We encourage companies to work with their community college partners to develop programs and pipelines that meet their current and future needs. (para. 2)

This suggests that to address divides between the employment readiness of community college completers and industry demand for skilled workers, community colleges must be proactive in infusing employer input into student employment preparation services.

Despite the importance of involving employers in the educational process, coordinating with external workforce stakeholders can be challenging for a variety of reasons (Fein, 2012). Employers may not immediately see, and colleges may not explicitly impart the value-add of a partnership. A thriving workforce development partnership should include clarity about the community college's intent to be responsive to industry expectations and how collaboration may

lead to "cost offsets from reduced turnover and increased productivity" (National Fund for Workforce Solutions, 2010, p. 15).

The Practice of Career Services

In addition to understanding student and employer expectations for workforce preparation through higher education, another related topic is career services provided by colleges. Students' utilization of comprehensive support services, in addition to academic programming, is critical to their success (Community College Research Center, 2013; McDonnell & Soricone, 2014). Students pursue a multitude of services on college campuses, but some of the most effective services may be underutilized, under-resourced, or are non-existent (Basinger, 2017; Gallup Inc., 2017). Furthermore, a recent nationwide study showed that only 16% of college graduate respondents who utilized career services found them to be helpful (Marcus, 2017). Basinger (2017) expounded, "career services and education remain relegated to an office on the periphery of campus. Their work often has been underfunded and understaffed. Few students have used their services, much less found it useful" (p. 4). Additionally, colleges have growing external pressures to evolve career support beyond the traditionally provided services, including looking at what is offered and how it is delivered (Contomanolis, Cruzvergara, Dey, & Steinfeld, 2015; Wallen, 2015). This presents challenges for community colleges, as strong support in career planning and transition from college to career has been correlated to student well-being and success (Freeman et al., 2017; Murphy, Blustein, Bohlig, & Platt, 2010).

Career preparation needs to span a student's educational journey and should begin as soon as a student enters the college all the way through program completion (Cooper, n.d.; Rayman, 1999). Common types of career services a college may provide include, "vocational guidance, teacher guidance, job placement, career counseling, and professional networking" (Contomanolis

et al., 2015, para. 5). Zondag and Brink (2017) also explained that college career centers provide students with training in "searching, applying, and interviewing for internship and job positions" (p. 980). Additionally, national legislation such as Perkins and the Workforce Innovation and Opportunity Act expands upon the expectations of career services to include providing students with access to work-based learning (U.S. Department of Education, n.d.). A familiar form of work-based learning is an internship, which moves to learn to a workplace setting that is complementary to the classroom. Ultimately, the core purpose of college career services is to connect academic preparation to professional expectations and opportunities (Simon, Perkus, & Crabtree, 2014).

Given the often low participation rate in career services, how, where, and when services are delivered can be as important as what services are provided. Zondag and Brink (2017) stated, "Given that career expectations are influenced by career information or lack thereof, it is important to identify the sources from which college students obtain career information" (p. 979). It has been found that career preparation is accessed at higher frequencies when complimenting academic programming and when offered beyond a designated office space on campus (Basinger, 2017; Wallen, 2015). The Community College Research Center (2013) further explained, "making supports an integral and intrusive part of every student's experience means that all students will receive help, whether or not they think they need it" (p. 4). Colleges that are currently innovating in this realm have adjusted the delivery of services to be more personalized to individual student needs, expanded the use of technology, partnered across academic and student affairs divisions, and expanded their external network of employer partners (Arnold, 2018; Basinger, 2017). Additionally, providing students with access to work-based learning experiences has become popular as a "strategy for increasing postsecondary attainment

and employment opportunities in high-growth, high-demand, high-wage fields for youth and adults, especially those from underserved populations" (Cahill, 2016, p. 4).

Overall, quality career services are adaptable as they are tailored around labor market information, which identifies high-demand occupations and associated credentialing and skill requirements (National Conference of State Legislators, 2014). Additionally, community colleges may look beyond the norms found within the educational sector to identify promising practices in the creation and delivery of services. For example, a contemporary approach to program development is design thinking, which is human-centered and focuses the practitioner on abandoning less-effective practices to redesign in response to student and employer needs (Leuzinger, Lee, & Korber, 2018). Other relevant external sources for career service practitioners to consider for access to resources and expertise are local workforce investment agencies and professional staffing firms, which specifically function to place individuals into employment. (Heshmatpour, Modicamore, Takyi-Laryea, Taylor, & Gehring-Liker, 2016; The Aspen Institute, n.d.).

Identified Gaps

Literature that assesses and highlights the relationship between effective career services, students' satisfaction with employment preparation, and efficacy of community colleges in meeting their workforce mission is deficient. Furthermore, there is limited published research that captures community college students' perspectives, and specifically, students in California, to inform the practice of workforce development provided by the state's largest provider. Thus, this study intended to address these gaps, at least partially, by providing relevant data to be collected and analyzed, as described in Chapter Three, which details the research design and methodology.

Chapter 3 – Research Design and Methodology

As previously discussed, employment outcomes are an important metric when evaluating the performance of higher education institutions (Baird & Parayitam, 2017; Harmon & Ridley, 2014). Employment preparation and outcomes impact both the professional results of students and the economic strength of employers (Serino, 2017). This study aimed to explore this topic at a local level, specifically looking at the workforce development efforts at a convenience sample of California community colleges measured through the lens of students' perception. Two research questions guided the study:

RQ1: What are students' perceptions of the effectiveness of their community college in preparing them to enter employment?

RQ2: What are students' perceptions of the career services they received from their community college?

Rationale for Research Design

Data-informed decision-making can lead to the transformation of an organization (Ikemoto & Marsh, n.d.). Further, students' perspectives should be a substantial contributor to designing educational services that meets their needs (Bruno, 2018; McClenney & Arnsparger, 2012). Student assessment of educational expectations and experiences may differ depending on what stage they are in of the educational process, including pre- and post-time frames. This study captures students' perceptions at the point of their having received most of their employment preparation from the college. Nearing program completion is a relevant moment to elicit student feedback, having them evaluate their training provider and express expectations regarding their ability to transition into employment just before they exit the college. Svensson and Wood (2007) described gathering information at such a point stating,

Initially, the relationship between the student and university may be interpreted as a

provider-receiver relationship, where the university is the provider of knowledge, and the

student is the receiver of knowledge; however, the roles of provider and receiver become

interchanged as the student-university relationship evolves. Eventually, the provide-

receiver relationship becomes modified, where the student is the provider of knowledge,

and the university is the receiver of knowledge. (pp. 21-22)

Therefore, this study was designed to incorporate students' voices to access information that can

help influence the design and delivery of effective California community college workforce

development programs.

This study used a non-experimental quantitative design to identify students' perceptions

of, and satisfaction with, the career preparation they received at the community college.

Quantitative research has been selected to provide numerical descriptions and causal

explanations for the selected topic (Johnson & Christensen, 2014; O'Sullivan, Rassel, & Berner,

2008). Additionally, correlational research "studies the relationship between one or more

quantitative independent variables and one or more quantitative dependent variables" (Johnson

& Christensen, 2014, p. 45).

Participants and Setting

Participants in this study were students enrolled in at least one of four sampled California

community colleges and were nearing career technical education program completion based on

the criteria outlined below. The researcher's intent was to capture the perception of students who

are presumably ready for and desiring to enter into employment aligned with their major of

study. Further, based on the time spent at the community college, it was assumed by the

researcher that students nearing the end of their program would have had more opportunity to participate in career services than those who are beginning their program.

Participating Community Colleges

Students participating in this study were from four California community colleges located in Southern California. The sample type for the selection of community colleges was convenience sampling, as this involves the recruitment of those who can more readily be included in the study (Johnson & Christensen, 2014). The researcher obtained permission from all four of the participating community colleges to conduct the study with their students. At the request of one of the community colleges, data from the study are not disaggregated by college, and all participating colleges were kept anonymous. Hence, the community colleges are referenced as college A, B, C, and D.

The participating colleges all had students enrolled in workforce development programs in the form of career technical education and have designated career service centers. In the Fall of 2019, College A had a total student enrollment of 2,865, with a female majority (63%) and Hispanic being the largest ethnic population (45%: California Community Colleges Chancellor's Office, 2020). In the Fall of 2019, College B had a total student enrollment of 5,720, with a female majority (64%) and Hispanic being the largest ethnic population (66%: California Community Colleges Chancellor's Office, 2020). In the Fall of 2019, College C had a total student enrollment of 16,405, with a male majority (55%), and Hispanic being the largest ethnic population (53%: California Community Colleges Chancellor's Office, 2020). Finally, in the Fall of 2019, College D had a total student enrollment of 24,271, with half being female (50%) and Hispanic being the largest ethnic population (44%: California Community Colleges Chancellor's Office, 2020).

Participating Students

Criteria for identifying student participants from the four colleges were established by the researcher under advisement of a California community college research professional to specify a purposeful sample. Merriam (2009) stated, "purposeful sampling is based upon the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (p. 77). The only students who were invited to participate were those who were in workforce development programs and nearing program completion, as identified by being enrolled in a career technical education program, having completed college-level mathematics and English, and having obtained at least 45 units of college-level credit. Students were also required to be 18 years or older and to have provided the college with permission to share their contact information with external entities.

Each participating college utilized its internal database to generate a list of students who met the study participant criteria. The students were then invited via email (either by the researcher or their college) to participate in the study, which followed a non-random purposeful sample protocol (Johnson & Christensen, 2014). The email explained the origin and purpose of the study and invited students to complete an online survey within a two-week time period anonymously. Many factors influence participant response rates of online surveys, which have become one of the most utilized methods of data collection (Saleh & Bista, 2017). Students were incentivized to participate through the ability to opt-in to receive a $25 Amazon gift card, as determined by random selection.

Instrumentation

An online survey with a total of 24 questions was designed by the researcher on the Google Forms platform to collect data about students' perception and satisfaction for this study

(see Appendix A). O'Sullivan et al. (2008) explained, "evaluators use questionnaires to gather information from clients about their satisfaction with a program, its actual practices, and its effectiveness" (p. 212). Surveys are also one of the most popular methods of data collection due to the ability to economically reach a large sample size and collect information in a uniform format (Jones, Baxter, & Khanduja, 2013).

Questions included in the survey followed standard research protocols, including identifying appropriate variables to measure, developing questions that properly measure variables, and listing questions in a logical sequence (Johnson & Christensen, 2014; O'Sullivan et al., 2008). A blend of Likert-scale, multiple-choice, and dichotomous questions were used throughout the survey. Logic was built into the survey, and participants were guided to answer only those questions that aligned with their experiences. Participants were also able to leave questions unanswered.

Further, survey content was generated based on previously conducted surveys that sought similar information on a national level, including those created by Gallup (2017) and Hart Research Associates (2015). Additionally, the survey included demographic questions, and the researcher utilized the California community college system data protocols to determine the labeling of demographic characteristics (California Community Colleges Chancellor's Office, 2020). Therefore, the survey instrument data labeling was consistent with the system-level in the areas of ethnicity, gender, age-range, and major discipline. A list of the survey questions utilized for this study is available in Appendix A.

Instrumentation Pilot and Dissemination

Piloting the survey instrument before actual dissemination was necessary to produce the most meaningful information from the study. Johnson and Christensen (2014) asserted, "it is a

cardinal rule in research that you must try out or pilot test your questionnaire to determine whether it operates properly before using it in a research study" (p. 212). Therefore, prior to distributing the survey to students, the researcher had several educational professionals, students, and a research professional review the survey question content and order as well as and test the logic and online format. The researcher made revisions based on feedback from the pilot group to ensure the questions were clearly written and would result in useful responses related to the overarching research questions.

After the pilot, the survey was disseminated to the student sample population through a web link provided in the research study invitation email, which was sent in November 2019. The content of the email invitation is available in Appendix B. The survey was available online for an initial two-week period after the invitation was sent. Following the two-week period, a reminder email was sent to encourage students who had not yet participated in completing the survey. Survey availability was then extended for another two-week period in December 2019. The researcher disabled external access to the survey at the conclusion of the extended time period.

Data Analysis

Data collected through the survey instrument were exported to Microsoft Excel for organization and analysis. Excel is commonly used to perform descriptive statistics (Center for Innovation in Research and Teaching, n.d.). Descriptive statistics help the researcher understand the characteristics of the sampled population (Salkind, 2011). This analysis allowed the researcher to summarize nominal participant data such as gender, ethnicity, major of study, and participation in career services. The researcher also performed Pearson chi-square and Spearman correlation statistical tests utilizing International Business Machines (IBM) Statistical Packages for Social Sciences (SPSS) software. Specifically, chi-square testing identifies if there is a

statistically significant association between categorical variables (O'Sullivan et al., 2008).

Spearman correlation testing measures the strength of relationships between variables

(O'Sullivan et al., 2008). Using these tests, the researcher explored relationships between

variables, such as major and use of the career center.

Ethical Considerations

Ethics are used to "evaluate behavior in terms of right or wrong according to principles or

guidelines" (Rogelberg, 2004, p. 35). The researcher is cognizant of and followed professional

research standards to maintain ethical practices throughout the research process. Such standards

involve the maintenance of participant confidentiality, avoidance of misrepresentation of data,

and minimization of error (Resnik, 2015). Additionally, all participants, including the

community colleges and students were afforded "respect, beneficence, and justice" (O'Sullivan et

al., 2008, p. 264) as an integral part of the research process.

The researcher took steps to safeguard against unethical research practices including

obtaining institutional review board and appropriate leadership approval at each participating

community college as well as the researcher's institution, Kansas State University (see Appendix

C); providing informed consent rules to all participants, which detailed that participation is

voluntary and had no impact on their academic or employment standings; and making findings of

the study accessible to all participants and the public through publication.

Assumptions

There were three key assumptions in this study. The first assumption was that the

participating community colleges produced a student list of contacts that accurately aligned with

the study participant criteria. The second assumption was that students answered the survey

questions honestly. Furthermore, the third assumption was that students would only complete the survey once.

Internal and External Validity

The internal validity of the study would be threatened if the survey questions were not designed in a way to generate data that answers the research questions. O'Sullivan et al. (2008) asserted, "the reliability and operational validity of closed-ended questions partially depend on the list provided" (p. 220). As the survey instrument was designed based upon other similar research studies as well as relevant California community college workforce development practices, threats to internal validity were addressed. Piloting the survey as previously described with educational professionals and students also increased its internal validity.

External validity considers whether the results of this study can be generalized or applied to students and settings outside of the study (Lavrakas, 2008). As only four of the 115 California community colleges were included in this study, the results of this effort are not be generalizable across the entire California community college system nor to other educational institutions outside of the system. Regardless, the results may be transferrable to educational practitioners delivering workforce development programs and services. Additionally, the survey instrument and means of data collection used for this study could be easily replicated at a larger scale, yielding results applicable to community colleges in and outside of California.

Limitations

All studies have limitations, most often including sample size, response rate, and methodology constraints (Roberts, 2010). As discussed, this study was limited to students from a small sample of California community colleges within a system of 115. Thus, the findings are not generalizable to all higher education students. Related to this, another limitation was that

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students who volunteered to participate may not be representative of all students who met the research criteria nor all those enrolled in career technical education programs at the four study community colleges. It is also possible that contact by email reduced the overall number of respondents as not all qualified participants may be reachable or responsive (Wright, 2005).

Summary

The researcher designed and conducted the study following standard research practices and ethical principles to ensure informative and valuable findings were produced. The results of the study were intended to inform workforce development practitioners at California community colleges and may be considered useful in broader educational contexts. Results from the study are reported in Chapter Four and discussed in Chapter Five.

Chapter 4– Findings and Analysis

The purpose of this study was to explore the efficacy of a sample of California community college workforce preparation programs and services from the perspective of students. This chapter comprises the results and analysis of quantitative data gathered from California community college students by a web-based survey, aimed at addressing two research questions:

RQ1: What are students' perceptions of the effectiveness of their community college in preparing them to enter employment?

RQ2: What are students' perceptions of the career services they received from their community college?

This chapter offers the researcher's analysis of data drawn from a sample of 149 students from four southern California community colleges, which are part of the 115 California community college statewide system. The analysis included a description of the sample and an exploration of the findings organized and presented by themes derived from grouping together related survey questions. The themes are career guidance, utilization of career service centers, readiness to enter employment, and making connections to employers.

Description of the Sample

The four participating Southern California community colleges identified through their internal databases a combined total of 6,543 students who met the researcher's criteria of being in a career technical education program, completed at least 45 units of credit, completed college-level English and math, being 18 years or older, and provided permission to their community college for their contact information to be shared. The contact information permission was

obtained as a part of each community college's general student information sharing policies and practices and was not specific to this research. Colleges A, B, and C provided the researcher with email addresses of 527 students, who received an email explaining the research project and inviting them to follow a link to participate in the web-based survey. The email addresses of college A, B, and C students were a mixture of internal college email addresses and personal email addresses, solely based on what the student provided the college as their primary email address. College D required the participation email invitation to be sent to their 6,016 students by an internal college representative. Consequently, the researcher did not have access to or information about the type of email addresses used for students from College D. Besides the mode of survey distribution, the survey process for all 6,543 students from colleges A, B, C, and D was the same other than asking students at colleges A, B, and C to identify which institution they attend. Out of 6,543 students emailed, 10 undeliverable email message responses were received, leaving an assumed total of 6,533 students who received the invitation.

Students were initially given two weeks from the time of invite to complete the survey. At the conclusion of the two-week period, students were notified that the deadline had been extended by one week, and those who had not already participated were again invited to complete the survey. Of the 6,533 students, 154 responded, yielding 149 useable responses for an overall response rate of 2.3%. Five of the 154 respondents did not select an option within the survey to confirm that they were over 18 and that they consented to participate in the research project. Hence, only the responses from the 149 students who confirmed these factors were included. Further, student respondents were intentionally given the ability to bypass any of the survey questions, and there were some questions that did not yield responses from all 149 respondents. The variation in responses per question is shown throughout the presentation of

findings within this chapter. Additionally, pairwise deletion was employed. Student cases were removed when there was missing data for the question driving each analysis.

Sample Demographics

The web-based survey included five demographic-related questions regarding gender, age, ethnicity, major, and employment status. All 149 students responded to the gender and age question, and only 145 students responded to the gender question, even though the question had a 'decline to state' option. Respondents predominately identified as female, between the ages of 20 and 24, and Hispanic. Having just over half of the respondents identify as Hispanic aligns with the four colleges' reported demographics of predominately serving Hispanic students. The major (area of study) distribution across the students was broad, with Health being selected the most at 26% by 132 respondents. Additionally, 148 students responded to the employment question, with 41% unemployed, 44% employed, but not in a job that aligns with their major, and 15% employed in a job that aligns with their major.

Table 1

Demographic Characteristics of Student Respondents

Characteristic	Sample	
	N	%
Gender		
Female	100	69.9
Male	42	29.3
Declined to State	3	2.1
Total Gender Responses	143	100.0
Age		
19 or Less	18	12.0
20-24	66	44.3
25-29	19	12.7
30-34	16	10.7
35-39	9	6.0
40-49	14	9.4
50+	6	4.0
Declined to State	1	.6

Total Age Responses	149	100.0
Ethnicity		
African-American	23	15.4
American Indian/Alaskan Native	0	0.0
Asian	13	8.7
Filipino	2	1.3
Hispanic	76	51.0
Pacific Islander	4	2.6
White Non-Hispanic	15	10.0
Multi-Ethnicity	9	6.0
Other	3	2.0
Declined to State	4	2.6
Total Ethnicity Responses	149	100.0
Declared Major		
Agriculture and Natural Resources	1	0.7
Architecture and Related Technologies	1	0.7
Biological Sciences	3	2.2
Business and Management	16	12.1
Commercial Services	2	1.5
Education	10	7.5
Engineering and Industrial Technologies	10	7.5
Environmental Sciences and Technologies	1	0.7
Family and Consumer Sciences	2	1.5
Fine and Applied Arts	5	3.7
Health	34	25.7
Information Technology	7	5.3
Law	12	9.0
Media and Communications	2	1.5
Physical Sciences	0	0.0
Public and Protective Services	14	10.6
Social Sciences	12	9.0
Total Major Responses	132	100.0
Employment		
Employed but not in a job that aligns with major	65	43.9
Employed in a job that aligns with major	22	14.8
Unemployed	61	41.2
Total Employment Responses	148	100.0

The ethnicity and age characteristics of the sample were compared to the population of

students enrolled in California community colleges (California Community Colleges

Chancellor's Office, 2020). Females in the study sample were overrepresented (70% to

54%). The proportion of Hispanics, however, was consistent with the statewide statistic (51% to 47%). Age was not directly comparable with statewide data since the study sample was developed to capture those students that were near completion while the statewide figures consist of all students enrolled in a California community college. The largest age category in the study sample was 20-24 years old (44%). Statewide, this age category represented 29% of enrolled students. An absence of statewide data precluded comparisons by major and employment status.

Summary and Analysis of Students' Perspectives and Experiences

Considering the theoretical framework of Maslow's motivational theory used for this study, students were asked to identify their primary motivations for pursuing a college certificate or degree. Respondents were given a list of seven motivation options, which were based upon options found in similar studies referenced in the literature review. Respondents were able to select up to two options that best described their motivation. Of the 148 respondents, 66% indicated their main motivation for pursuing a college certificate or degree s to become eligible for better employment, which was the highest selected option. The next most selected option was the desire to make a better life for themselves and their family at 60%. Following those, 22% selected making more money, 14% learning about a topic of interest, 14% becoming a better person, 8% improving self-confidence, and 3% to satisfy parents.

Receipt of Career Guidance

An overwhelming majority of students indicated that community college staff (teachers, counselors, career center staff, or others) provided them with help to find a satisfying career and that a community college counselor or adviser had been helpful in guiding them to take courses needed to reach their career goal. Using a four-point scale in which one signifies "strongly disagree" and four signifies "strongly agree", 85% of 148 students agreed that community

college staff helped them to identify a career ($M = 3.25$, $SD = .77$). Using the same four-point scale, 82% of 149 agreed they received course guidance toward their career goal ($M = 3.28$, $SD = .88$).
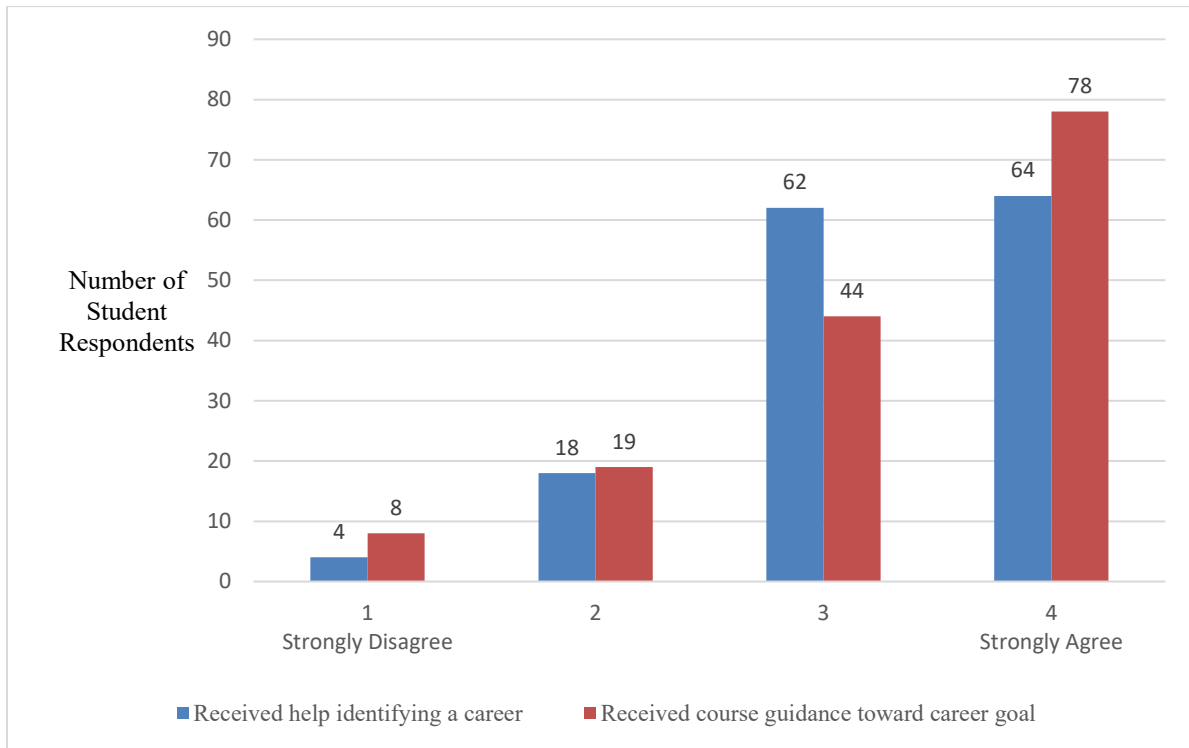
Figure 1. Students receiving assistance with career identification and course guidance.

Utilization of Career Service Centers

A series of six survey questions focused on students' utilization of the career center at their community college and related services because, as discussed in Chapter Two, these areas of the college would likely be focused on supporting students in career exploration, employment readiness, and making employment connections. Sixty percent of 149 student respondents indicated they had used the career center. While 90% of student respondents who had used the career center found it to be helpful, and sustained frequency of use was low, with only 8% visiting more than four times throughout their time at the community college.
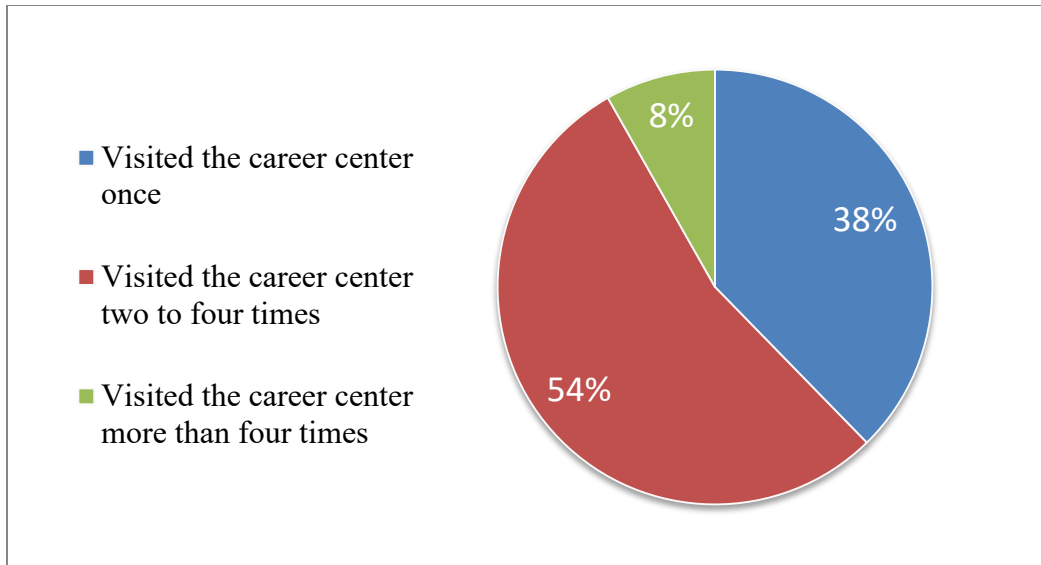
Figure 2. Student frequency of career center visits

The types of services students utilized in the career center also appeared to be limited (see Figure 3). The survey probed six common career services, as suggested by the literature review; several students added other responses.
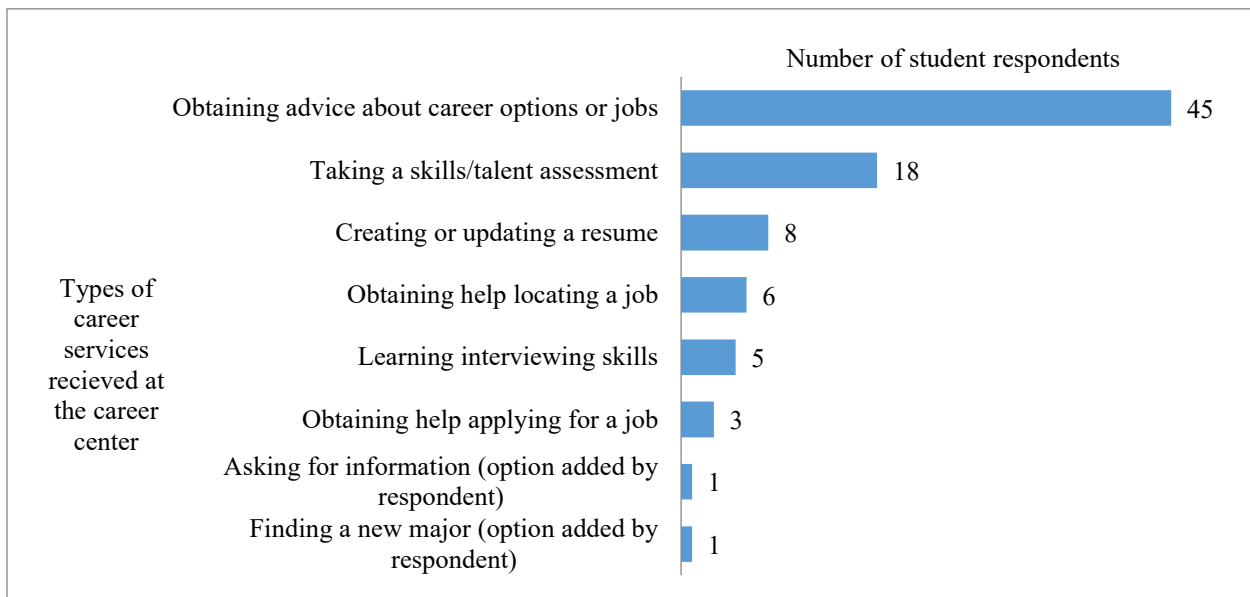
Figure 3. Students' perceptions of services received at the career center.

Of the 40% (n = 88) students who had not used the career center, primary reasons were identified as not having time (39%) and being unaware their community college provided career services (33%). Respondents could select one of four provided options or insert their own response (See Table 2).

Table 2

Student Survey Responses Regarding Reasons for Not Using the Career Center

Student Response	Response Type	Number of Student Respondents
I did not have time to visit the career center offices	Pre-populated in Survey	34
I was unaware the college provided career services	Pre-populated in Survey	29
I did not think that career services could help me	Pre-populated in Survey	14
I could not find the career services office	Pre-populated in Survey	4
I only attend school at night	Student Added	1
I don't know what a college's career center is like	Student Added	1
I already have a career and path for future growth, once I receive my degree	Student Added	1
I just haven't gone	Student Added	1
It wasn't on my radar	Student Added	1
I didn't need to go to the career center	Student Added	1
Did not want to	Student Added	1
	Total	88

Students who had not utilized the career center were also asked if they had received career services from community college staff outside of the center. The non-user students were provided the same list of service options as those who had visited the career center and were also

able to select as many services as applicable while also adding their own responses. Forty-four

percent of the 88 non-users of career centers indicated they had not received career services help

from other community college staff. That is 26% of all respondents stating they did not receive

career services in or outside of the career center.
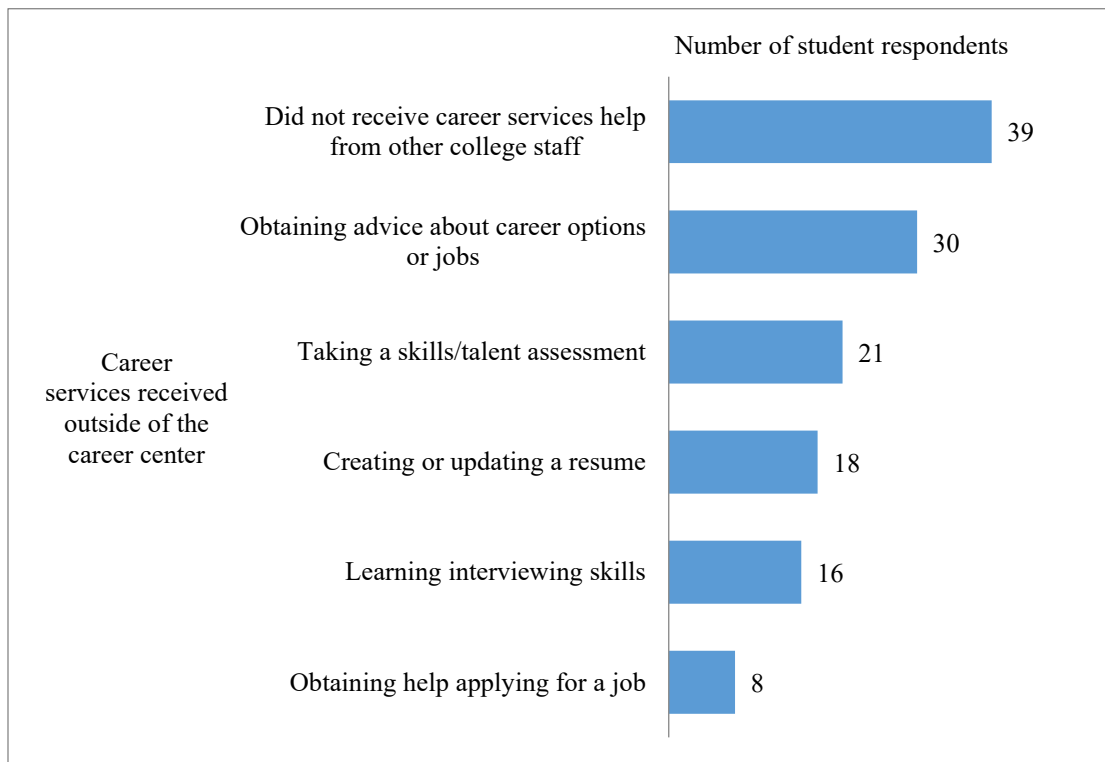
Figure 4. Career services received outside of the career center.

A Pearson chi-square test of independence was used to determine whether a significant

relationship between student use of the career center and major, ethnicity, and gender existed. A

separate test was run for each demographic variable unless the category had five or fewer student

respondents which would mitigate against credible test results. A standard alpha level of .05 was

applied, and if the test produced a *p*-value of .05 or less, an indication of a statistically significant

association between the variables would be established.

The first set of Pearson chi-square tests were used to look for a relationship between major and use of the career center. There were eight majors with more than five students, and a separate test was performed for each major. Results show there was no significant correlation between major and use of the career center ($p > .05$) as found in Table 3. There were only slight differences between the expected and observed counts in each of the eight tests, and tables showing the outcomes for each test are available in Appendix D.

Table 3

Chi-Square Results for Career Center Use and Student Major

Variable	Variable	Chi-square	p	N	df
	Business Major Students	.00	.97	132	1
	Education Major Students	.24	.63	132	1
	Engineering & Industrial Technology Major Students	.77	.38	132	1
Career Center Use	Health Major Students	.96	.33	132	1
	Information Technology Major Students	.10	.75	132	1
	Law Major Students	.18	.73	132	1
	Public and Protective Services Students	1.65	.20	132	1

Social Science Major Students	.18	.73	132	1

Another set of Chi-square tests were run to test for significant relationships between ethnicity and use of the career center. There were five ethnicity categories with more than five student respondents, and a separate test was performed for each category. Again, results show there was no significant correlation between ethnicity and use of the career center for each race/ethnic category (p >.05) as found in Table 4. There were only slight but statistically insignificant differences between the expected and observed counts in each of the five tests. Tables showing the complete results for each test are available in Appendix E.

Table 4

Chi-Square Results for Career Center Use and Student Ethnicity

Variable	Variable	Chi-square	p	n	df
	African-American Students	.07	.79	149	1
	Asian Students	.16	.69	149	1
Career Center Use	Hispanic Students	.09	.77	149	1
	White Non-Hispanic Students	1.40	.24	149	1
	Multi-Ethnic Students	.23	.63	149	1

The next set of Chi-Square tests examined the relationship between gender and the use of the career center. There were three response categories of female, male, and prefer not to say.

Only female and male categories had more than five respondents. The results of these tests were

the consistent with previous Chi-square tests in finding no significant correlation between gender

and use of the career center (p>.05) as detailed in Table 5. There were only slight differences

between the expected and observed counts in the two tests, and tables showing the complete

outcomes for each test are available in Appendix F.

Table 5

Chi-Square Results for Career Center Use and Student Gender

Variable	Variable	Chi-square	p	n	df
Career Center Use	Female Students	.54	.46	145	1
	Male Students	.20	.65	145	1

Moving beyond demographics, another Pearson chi-square test of independence was

performed to see if there was a relationship between use of the career center and making a

connection with an employer through career fairs, job site tours, internships, or other means. A

significant association was found between these two variables, X^2 (1, N = 149) = 4.84, p = .03

(Table 6).

Table 6

Expected and Observed Values for Career Center Use and Making Connections with Employers

			Student used the college career center		
			No	Yes	Total
Student was connected to employers through career fairs, job site	No	Count	55	27	82
		Expected Count	48.4	33.6	82.0
	Yes	Count	33	34	67

tours, internships, or other means.	Expected Count	39.6	27.4	67.0
	Count	88	61	149
Total	Expected Count	88.0	61.0	149.0

Further, Spearman's rank correlation testing was used to determine if there was a relationship between staff engagement with students and their confidence that they will graduate with the knowledge and skills needed to be hired in a major-related job. There was a positive correlation found between community college staff proactively providing students with information on how to find a major-related job and students' confidence that they would graduate with the knowledge and skills needed to be hired in a major-related job (rs(145) = .24, p = .004). The p-value is less than .05 providing strong evidence of a relationship. Similarly, there was a positive correlation found between community college staff providing students with the help needed to find a satisfying career and students' confidence that they will graduate with the knowledge and skills needed to be hired in a major-related job, (rs(146) = .40, p < .001). Again, the p-value is less than .05, showing strong evidence of a relationship.

Readiness to Enter Employment

Approximately 19% of 149 students indicated they had not received assistance in gaining any of the employability skills that employers have ranked as desirable or lacking in new college graduates. Eight employability skill types drawn from the literature review were presented as survey options, and students could select as many as applied to their experience or none. The most selected skill type was written communication (58.4%), and the least selected skill type was creativity (37.6%). For each skill type, at least 40% of students did not believe they had received assistance from their community college in the skill area (see Table 7).

Table 7

Student Survey Responses Regarding Receipt of Assistance in Gaining Employability Skills

Employability Skill	Sample		
	n	*Number of Students Who Selected Skill*	%
Written Communication	149	87	58.4%
Critical Thinking	149	80	53.7%
Oral Communication	149	77	51.7%
Time Management	149	74	49.7%
Collaboration	149	67	45.0%
Adaptability	149	66	44.3%
Punctuality	149	60	40.3%
Creativity	149	56	37.6%
None of the Listed	149	28	18.8%

Despite the fact that almost half of the student respondents did not believe their community college had provided them assistance in developing the employability skills listed above, the vast majority of students showed high levels of confidence in their ability to graduate with the skills needed to be hired into a good-paying job and one related to their major. On a scale of one to four, with one being "strongly disagree" and four being "strongly agree", nearly all students or approximately 96% believed they would graduate with the skills needed to be hired in a job related to their major (M = 3.53, SD =.63).

Utilizing the same scale, 90% believed their area of study would lead to a good-paying job (M = 3.53, SD = .69). Additionally, 90% of 148 student respondents agreed they would return to the same community college if they needed career training in the future (M = 3.49, SD = .76).
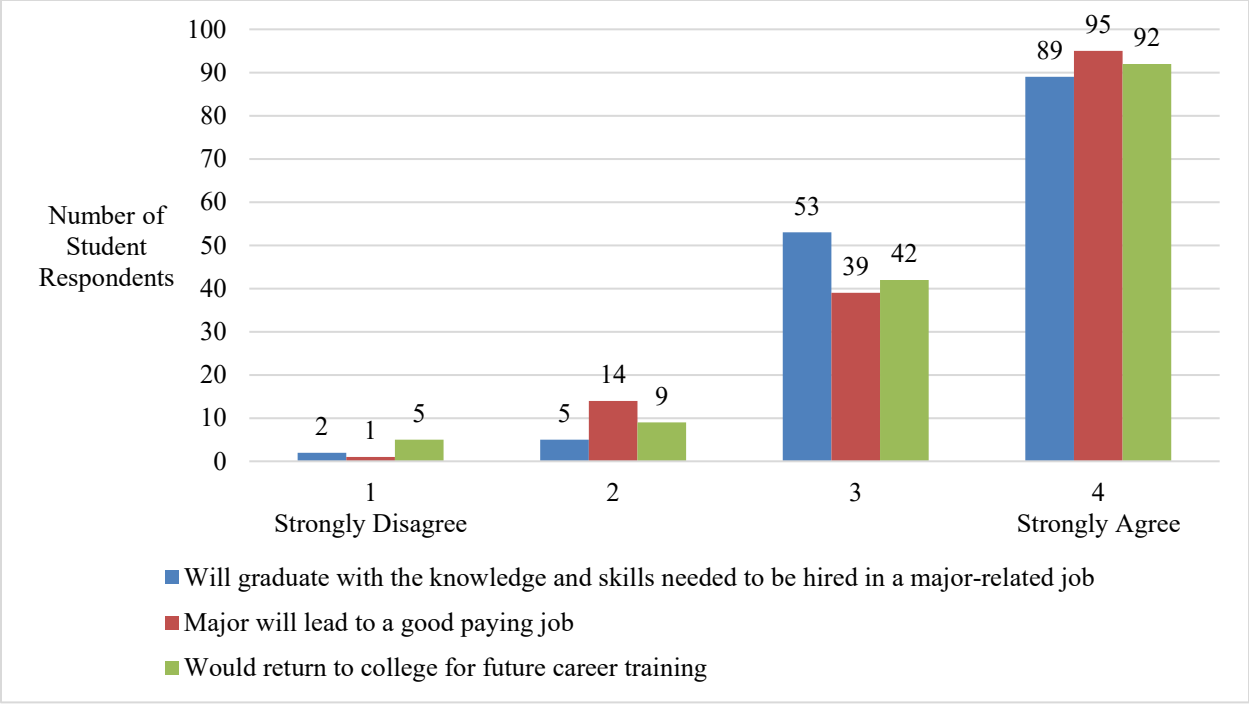
Figure 5. Student confidence and willingness to return to the community college for future career training

Making Connections to Employers

Students also were asked if their community college had connected them to employers through career fairs, job site tours, internships, or other means. One hundred and forty-nine students responded with 55% selecting yes and 45% selecting no. Of 82 students who perceived they had not been connected to employers, 56% were either unemployed or employed but not in a job that aligned with their major.

Table 8

Student Survey Responses Regarding Being Connected to Employers

Student Employment Status	College did not connect student to employers through career fairs, job site tours, internships, or other means	College did connect student to employers through career fairs, job site tours, internships, or other means

Employed but not in a job that aligns with my (major) area of study	37	28
Employed in a job that aligns with my major (area of study)	11	11
Unemployed	34	27
Did not state	0	1
Total Student Respondents	82	67

Those indicating that they made no connection were then asked to choose from four reasons they did not make connections including: a) they opted out of the opportunity, b) they were unable to attend the opportunities, c) they were not provided an opportunity, and d) they were not provided an opportunity related to their major. Eighty-eight students responded to this question, with the inability to attend and not being provided an opportunity related to their major as the most popular answers, as shown in Figure 6.

48
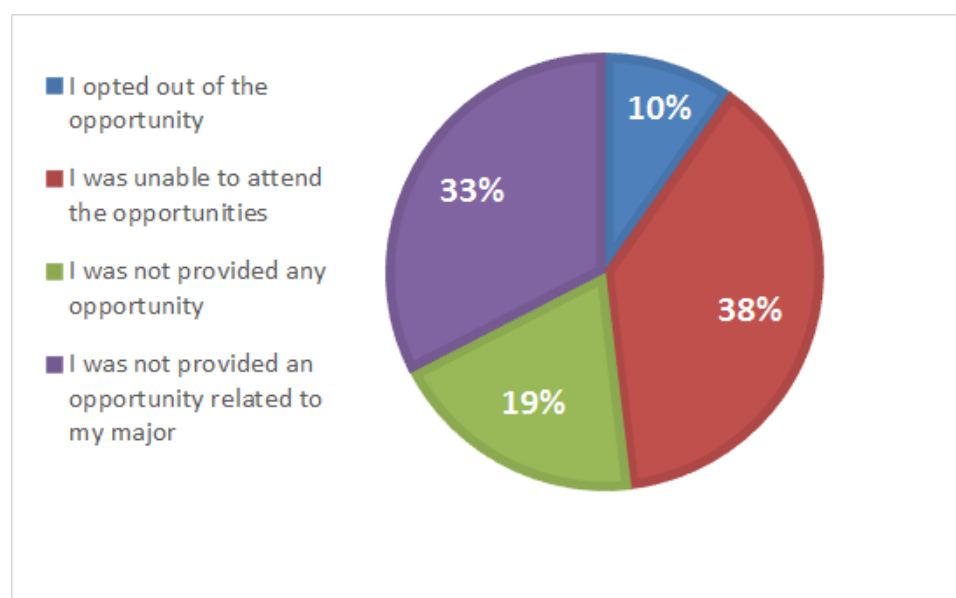
Figure 6. Reasons for not making connections to employers through the community college

Respondents were also asked if community college staff (teachers, counselors, career center staff, or others) proactively provided them with information on how to find a job related to their major (see Figure 7). Using a scale of one to four, with one being "strongly disagree" and four being "strongly agree." more than half of the 147 (66%) respondents agreed they had been provided job-seeking information ($M = 2.90$, $SD = 1.08$).
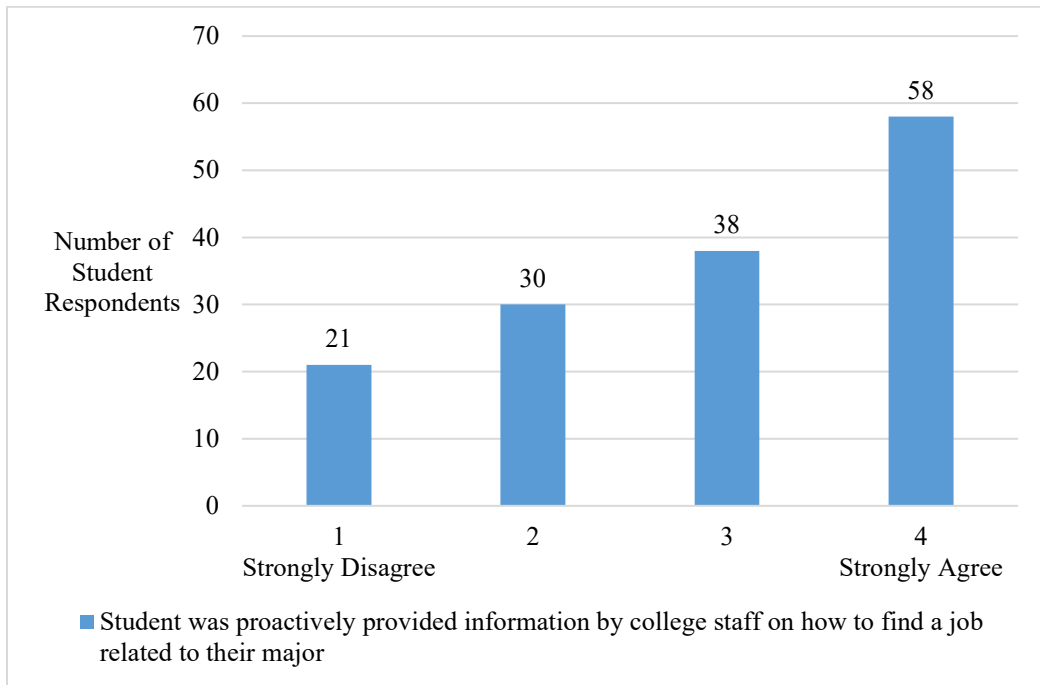
Figure 7. Receipt of job seeking services

A Pearson chi-square test of independence was used again to determine if there was a significant correlation between majors and students making connections with employers through career fairs, job site tours, internships, or other means. There were eight majors with more than five student respondents, and a separate test was performed for each major. Overall, the results of this set of tests showed no significant correlation between major and making employer connections. Only one major, social science was almost statistically significant ($p=.05$), while other majors were statistically insignificant (see Table 9). There were only small differences

between the expected and observed counts in the eight tests, and tables showing the outcomes for each test are available in Appendix G.

Table 9

Chi-Square Results for Making Employer Connections and Student Major

Variable	Variable	Chi-square	P	n	df
Making Connections with Employers through Career Fairs, Job Site Tours, Internships, or other means	Business Major Students	.30	.58	132	1
	Education Major Students	.07	.79	132	1
	Engineering & Industrial Technology Major Students	2.98	.08	132	1
	Health Major Students	.18	.67	132	1
	Information Technology Major Students	.52	.47	132	1
	Law Major Students	.60	.44	132	1
	Public and Protective Services Students	.23	.62	132	1
	Social Science Major Students	3.99	.05	132	1

Conclusion

This chapter presented data and major findings derived from a web-based survey distributed to career technical education students near program completion and enrolled at four southern California community colleges. Results presented students' perspectives and experiences related to their receipt of career guidance, use of the colleges' career service centers, readiness to enter employment, and connections to employers made through the community college. The results indicated that most students are primarily attending community college for the purposes of gaining employment and making a better life for themselves and their families. Additionally, a large majority of the students reported being either unemployed or employed in a job unrelated to their major. While most students had confidence in their skills and readiness to transition into employment related to their major and agreed that they would return to their community college for additional training, there appeared to be a substantial proportion of students (40% or more per skill type) who perceived the community college had not helped them gain critical employability skills. Further, nearly half of the student participants indicated that their community college had not connected them to employers, and just over half perceived that community college staff proactively provide them information on how to find a job related to their major. Further, there was some positive association between community college staff providing students with job search assistance and their confidence in their ability to become employed in a major-related job.

The results also show that most students believed they had received guidance on career identification and making course selections that lead toward a career goal. Just over half of the student respondents had utilized the colleges' career center and related services, with a low rate of repeated frequency and for a limited number of service types. There were several reasons

almost half of the students had not used the career center, with the primary reasons being lack of time and awareness. Additionally, nearly half of the students who had not used career centers also indicated they did not receive career services from other community college resources.

Chapter Five presents a summary of the study, a review of the methodology, and the implications of the study. Additionally, the chapter will present the researcher's interpretations of the findings to the research questions, along with comparing the findings to the literature review. Chapter Five concludes with the researcher's recommendations for future research.

Chapter 5– Summary, Discussion, and Recommendations

Summary of the Study

Overview of the Problem

Community colleges play an important role in providing workforce training throughout the United States. On a state level, three important stakeholder groups contributing to California's economic and workforce success are the California community college system, community college program completers, and employers. As a part of its mission, the California community college system aims to prepare students to enter the workforce. Similarly, gainful employment is a core reason students participate in postsecondary education. Additionally, employers drive a demand for workers prepared in a variety of technical and professional skill areas. Misalignment between these stakeholder groups could result in negative economic impacts at regional and statewide levels.

There is limited research evaluating the effectiveness of community college workforce development programs from students' perspectives. There is even less information available regarding students who are at the critical momentum point of nearing program completion and preparing to transition into employment. An overview of career technical education student experiences with the career preparation they received from a small sample of colleges within the California community college system provides a partial viewpoint from which decision-makers can learn about the adequacy of the system's mission, whether students perceive that their goals are being achieved, and the extent to which employers have access to prepared workers.

Purpose of the Study

The purpose of this study was to explore the perceptions of students regarding the effectiveness of the workforce preparation programs and services they experienced at their California community college. This study addressed two research questions:

RQ1: What are students' perceptions of the effectiveness of their community college in preparing them to enter employment?

RQ2: What are students' perceptions of the career services they received from their community college?

Review of the Methodology

This study was conducted using a non-experimental quantitative design to examine students' perspectives about the employment preparatory programs and services they received from their community college. A purposeful sample of 6,533 students from four southern California community colleges were invited to anonymously participate through completing questions in a web-based survey. The student sample was derived from participating community colleges, who identified students who were enrolled in a career technical education program and were near program completion as determined by their number of earned credits and completion of required college-level math and English. The responses of 149 out of the 6,533 invited students were received and used in this study, yielding a 2.3% response rate.

Discussion of the Findings

Maslow's theory of motivation served as the theoretical framework for this study as it provides a lens for examining students' pursuits of career satisfaction and economic self-sufficiency. This study found that most students prioritized better employment opportunities and

making a better life for themselves and their families as their main purposes for attending community college. These motivation-related findings indicate that students seek postsecondary education as a means for attaining employment, which can satisfy what Maslow describes as physiological and self-fulfillment needs. These same findings also directly align to the conceptual framework of career pathways used in this study. The concept of needing educational programs that prepare students to enter gainful employment has been validated in that students identified obtaining employment as a primary reason they are attending community college.

These findings related to students' motivations may be useful to community colleges as they seek to satisfy the goals of students and the mission of the college. They may potentially elevate the importance of workforce development programming and the important role community colleges play in preparing students for employment. Moreover, these findings support recommendations from the literature review that suggested the measure of a college's success should go beyond certificate or degree completion and extend into employment placement outcomes.

Students' Perceptions of Employment Preparedness

Findings from this study were generally clear about students' perceptions of the effectiveness of their community college in preparing them to enter employment. Overall, a large majority of students were satisfied with the career preparation they received from their community college, believed they were ready to enter employment, and believed they would return to their community college for future career training. Most students also believed their major would lead to a good paying job. Positive perceptions in these areas were expected considering the sample of students were those nearing program completion and likely optimistic about applying their learning in the workplace but have not yet attempted to transition. Finding

that students are satisfied with their programming and have belief it will take them to their career goal indicates that the community colleges' workforce development programs and services have resulted in positive student perceptions at this point in their career trajectory.

On the other hand, most students perceived that their community college had left them lacking in critical employability skill areas that employers desired across industry sectors. Again, the sample were students nearing program completion and approximately half or more (depending on which skill area) indicated their community college had not provided them assistance in acquiring the skills of written communication, critical thinking, oral communication, time management, collaboration, adaptability, punctuality, and creativity. Nineteen percent indicated they had not received assistance with any of these skills.

While most students were satisfied and believed their program is leading to employment opportunities, as discussed, a large percentage also highlighted what could be severe shortcomings on the part of the community colleges in helping them gain critical employability skills and/or in recognizing the skills that they acquired. Such a disconnect is unexpected and without additional research it is difficult to speculate why this occurred. Despite the reason, it seems this is an important area for further investigation as one would expect a larger number of satisfied students to believe their community college had helped them gain the critical employability skills as they approach entering the workforce. Additionally, it is recommended that the community colleges ensure their workforce development faculty and staff are empowered with an understanding of which skills are most in-demand by employers.

Students' Perceptions of Career Services

Results from the study were mixed when looking at students' perceptions of the career services they have received from their community college. As expected, findings differed

depending on which service or employability skill was being examined across the themes of career guidance, utilization of the career services centers, and making connections with employers. While the community colleges in this study appeared to do well with career guidance, there may be opportunity for further assessment and improvement in areas connected to employment connections and transitional services.

Career Guidance. As shown in the literature review, there is a growing need for colleges to provide students with assistance and counseling as they go through the process of selecting a career path. Most students agreed that they had received help from community college staff with identifying a career. Most students also agreed that they had received course guidance from community college staff aiming them toward their goal. These findings are not surprising considering that the process of selecting a major is often based upon career aspirations and knowing the courses needed to achieve major requirements is core to proper enrollment in programming at a college. Additionally, it is common for colleges to have staffing in the form of counselors with dedicated job duties of guiding students in major and course selection. Thus, these findings suggest that the community colleges are doing well in helping students navigate and make decisions when it comes to major and course selection.

As most students in this study indicated they had received career and course guidance, it seems likely that these are two touchpoint areas where the community colleges have an opportunity to provide students meaningful and pertinent career pathway information. Furthermore, the findings of significant statistical correlations between community college staff proactively engaging with students and their confidence levels suggests that institutions should provide practical avenues to increasing interactions. Purposeful engagement may provide informational and emotional benefits for students. Additionally, since all student respondents in

this study were near program completion, it may be important to do more investigation as to when students received the most effective career and course guidance. This could help the community colleges be more intentional in providing these services at the most critical times in a student's educational journey.

Utilization of Career Center Services. Low utilization of career center services by students was anticipated from the review of the literature. The literature found that these service centers are often underutilized and/or or provide limited service options in the areas of career exploration and job placement. While each community college had a designated career center, only 60% of students had utilized this resource. There were no significant correlations between demographics and use of the career center. It is important to note that there is a possibility that the sample size was too small or unrepresentative of the total population of California community college students to generalize these findings based on demographic characteristics. Regardless, it was found that lack of time to visit and unawareness that the community college provided career services were the two most frequently mentioned reasons for not visiting the career centers. Ranking third was that students did not think that career services could help them. It is therefore recommended that community colleges use this information to explore increasing awareness about the benefits of career center services. Additionally, the community colleges may want to provide more flexible and integrated service models for students with time constraints.

The literature also showed that effective career services span a student's college experience and provide a range of activities in the areas of career exploration, work-based learning, and job placement. If such a range were in place, it could lead to an assumption that students would frequently utilize career center services. However, this assumption could be wrong. This study found that only 8% of students who had visited the center did so more than

four times. Furthermore, while almost all the career center users found it to be helpful, their participation in different service options was extremely narrow. Obtaining career advice and taking a skills/talent assessment were the only service areas that had ten or more students who indicated they had received these services. The services that were received by less than ten students were those that could be categorized as employment readiness, including resume development, interview skills development, job search assistance, and applying for job assistance. This should be an area of concern considering the positive correlation found between students' usage of the career center and their ability to make employer connections. Perhaps equally concerning is that nearly half of the students who had not used the career center also stated they did not receive career services from other community college staff. If they had received services from other community college staff, it was primarily in the same limited areas as those who had utilized the career center, which were obtaining advice about career options and taking a skills/talent assessment.

Increasing the observed low participation rates in career services, whether occurring within or outside of a designated career center, should be a priority area for the community colleges participating in this study as well as other California community colleges, to the extent that generalization is important. The findings in this study suggested the possibility that some evidence-based career center services (as outlined in the literature review) at the community colleges may be non-existent, that they are not known about, that they are ineffective, and/or they are not easily accessible for students. The results also showed that students may not prioritize these services if they do not believe they are as essential for accessing employment opportunities. Overall, the career center service use findings may show California community colleges that there could be benefits in optimizing, aligning or expanding resources to ensure this

essential service area has increased effectiveness in serving more students. If a career center is operationalized but severely underutilized, the community colleges could be wasting resources by not ensuring the center is being used to capacity. It may also be worthwhile to explore the success of mandatory versus optional career services, with the potential of integrating priority career services into students' academic programming and coursework.

Making connections to employers. Eighty-five percent of the students who participated in this survey were either unemployed or employed in a job that did not align with their major. The literature also showed that colleges with workforce development programs should be well-networked with local business and industry, which in turn can provide connections between students and employers leading to employment. The literature also indicated that prior work experience is valued by employers when seeking job candidates. Connections can come in the forms of career fairs, job-site tours, internships, or other means. Results of this study show that about half of all student respondents believed they had been connected to employers by their community college. Over half of the 126 students who were either unemployed or employed in a job that did not align with their major, indicated they had not been connected to employers by their community college. The primary reasons found for the lack of connection were the inability for the student to attend the opportunity or the student not being provided an opportunity aligned to their major. This finding was is not surprising when interactions with employers or major-related work experience is not typically found as a widespread integral part for program major requirements and is often treated as extra-curricular.

Additionally, 45% of students disagreed that they had been proactively provided information by community college staff on how to find a job related to their major. A further area of intrigue related to this was finding that there appeared to be no relationship between

students' majors and making an employer connection. The researcher expected some majors to have more connections, due to the nature of programming such as the requirement for clinicals at employer sites for most health programs. Perhaps the examples of connection types (career fairs, job site tours, internships, or other means) provided by the survey instrument in this area were insufficiently comprehensive and impacted these results. Additionally, with a larger sample size there is a possibility some relationship could be discovered.

Again, with employment being a goal for students and an essential outcome of the career pathway conceptual framework, connecting students with employers may be a priority area for California community colleges to gather more data and address gaps based on the outcomes of this area of the study. It appears that an initial approach the community colleges could take to expand student and employer connections could be to ensure opportunities are delivered around the most accessible times for students and again, integrated with their coursework. Over half of the student respondents in this study indicated they were employed, and this could be factor limiting their ability to participate if services are not well designed around their needs.

Implications of the Study

This study contributes to a growing body of research focused on the outcomes of community college workforce development programs. It uniquely captures students' perspectives at a critical moment of time as they are near completing their educational program and are seeking entry into employment related to their education. The low response rate limits generalizability of the study results to the four community colleges in the sample. While the study sample mirrored statewide California community college enrollment in the category of ethnicity, cautious general applications to Hispanic students may be warranted but would require further research to test and potentially expand the applicability of the results across all

demographic categories. However, the findings are still representative of a range of California community college students' experiences and perspectives, across different colleges, majors, and demographic characteristics. The methodology is also replicable and could easily be used across the system. Further, the findings are likely transferable to California community college pracitioners system-wide, as elements of the research can be applied to their own similar situation of workforce development program and service delivery.

Recommendations for Future Research

The efficacy of California community college workforce development programs is an important area to research given the mission of community colleges as well as the size and diversity of community colleges within the system. Being conversant with students' perspectives and their needs can provide colleges with more robust data as they seek to evaluate and improve programs. As this study provides a glimpse into the perceptions and experiences of California community college students, implementing a similar survey to more students throughout the system would yield broader and perhaps more actionable information. The researcher recommends a two-pronged approach, where data are first collected by individual community colleges, which will likely help increase participation rates. Then secondly, the data should be reported to the system-level and aggregated to evaluate and inform system-wide performance and supports. Additionally, the researcher recommends that students be surveyed near the point of program completion like the methodology in this study and then again within one-year post program completion. It would be informative for the community colleges to compare the before and after levels of program satisfaction and belief in employment readiness, especially once students have presumably attempted to enter the workforce. Although collecting data from students once they leave the community college can be difficult, obtaining information about

actual student employment outcomes is an ideal metric of the community college's workforce development program effectiveness and is recommended to be evaluated as possible. Finally, it is recommended that students' voices are amplified in workforce development program evaluation processes by conducting qualitative research in this topic area. Due to the disconnect found between students being satisfied with their workforce preparation and their perceived lack of assistance in attaining critical employability skills, it is suggested that further research be done to assess students' understanding of the skills they have gained along with their understanding of employer expectations in the industry aligned with their major.

Concluding Remarks

Exploring the efficacy of community college workforce development programs through the lens of students, considerate of how they perceive the community college as well as their skill attainment, can provide the information needed to validate existing efforts and spotlight improvement areas. While the findings of this study show that students nearing program completion believe they are employment-ready and are satisfied with their training, there simultaneously appears to be opportunities to enhance and integrate a variety of evidence-based career services into the community college programming. Designing and delivering programs that are aligned with industry skill needs and students' career aspirations can potentially increase the effectiveness of the community college. Such practice could also optimize the use of the community college's resources, further ensuring that more students are positioned with the information, relationships, and skills necessary to achieve their goal of transitioning into gainful employment.

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Appendix A - Career Preparation Survey

Career Preparation Survey

The purpose of this survey is to gather and analyze student perspectives to expand knowledge about the effectiveness of the workforce preparation services provided by California community colleges. This research project is being conducted independently by Amy Smith who is a doctoral student utilizing this information to complete a degree at Kansas State University.

To participate in this survey you must meet the following four criterion: (1) Be 18 years or older; (2) Be currently enrolled in a Career Technical Education (CTE) program; (3) Completed college-level Mathematics and English; and (4) Obtained 45 units of college level credit.

Your participation in this research project is greatly appreciated and will consist of completing this short survey, which should take less than ten minutes.

Participation in this research is completely voluntary and there are no foreseeable risks to you.

Submission of the survey and selecting the consent option below will indicate your consent to participate in this research project. Additionally, you can skip any questions you desire.

The results of this research project will be published in a dissertation but no names are being collected on the survey and your identity will remain anonymous.

By completing this survey you will be eligible to opt-in to a drawing to receive a $25 amazon gift card as an incentive for your participation.

If you have any questions or concerns about this research project please contact Amy Smith via email at smithamy@ksu.edu or the Kansas State University research office at comply@k-state.edu.

Thank you!

1. I am 18 years or older and consent to participate in this research project, which consists of completing this survey.

    Mark only one oval.

    ⬭ Yes

    ⬭ No

2. My main motivation(s) for pursuing a college certificate and/or degree is (select up to two options that best describe your motivation)

    Check all that apply.

    ☐ To become eligible for better employment opportunities (a new job and/or promotion)
    ☐ To make a better life for myself and my family
    ☐ To make more money
    ☐ To learn more about a topic or area of interest
    ☐ To become a better person
    ☐ To satisfy the wishes of my parents
    ☐ To improve self-confidence

3. I have received assistance from my college in the following areas (select all that apply)

    Check all that apply.

    ☐ Oral Communication (e.g. Speaking and listening effectively)
    ☐ Written Communication (e.g. Writing clearly, accurately, and concisely)
    ☐ Punctuality (e.g. Appearing or completing something by an agreed upon time)
    ☐ Critical Thinking (e.g. Identifying problems and creating innovative solutions)
    ☐ Time Management (e.g. Coordinating and prioritizing the completion of tasks effectively)
    ☐ Adaptability (e.g. Flexibility to handle changing work conditions)
    ☐ Collaboration (e.g. Working with others in a productive and respectful manner)
    ☐ Creativity (e.g. Developing new ideas and figuring out how to put them into practice)
    ☐ None of the above

4. I am confident that I will graduate with the knowledge and skills needed to be hired in a job related to my major (area of study).

    Mark only one oval.

	1	2	3	4	
Strongly Disagree	◯	◯	◯	◯	Strongly Agree

84

5. I am confident that my major (area of study) will lead to a good paying job.

Mark only one oval.

	1	2	3	4	
Strongly Disagree	◯	◯	◯	◯	Strongly Agree

6. College staff (teachers, counselors, career center, etc.) have provided me with the help I need to find a satisfying career.

Mark only one oval.

	1	2	3	4	
Strongly Disagree	◯	◯	◯	◯	Strongly Agree

7. A college counselor/adviser has been helpful in guiding me to take the courses I need to reach my career goal.

Mark only one oval.

	1	2	3	4	
Strongly Disagree	◯	◯	◯	◯	Strongly Agree

8. I would return to my college if I need career training in the future.

Mark only one oval.

	1	2	3	4	
Strongly Disagree	◯	◯	◯	◯	Strongly Agree

85

9.   College staff (teachers, counselors, career center, etc.) have proactively provided me with information on how to find a job related to my major (area of study).

Mark only one oval.

	1	2	3	4	
Strongly Disagree	◯	◯	◯	◯	Strongly Agree

10.   I have used my college's career center.

Mark only one oval.

◯ Yes   *Skip to question 11*

◯ No   *Skip to question 14*

11.   I found the college's career center to be helpful.

Mark only one oval.

◯ Yes

◯ No

12.   I visited the career center office

Mark only one oval.

◯ Once

◯ 2-4 times

◯ More than 4 times

86

13.   I used the college's career center for help with (select all that apply)

Check all that apply.

☐ Creating or updating a resume
☐ Obtaining advice about career options or jobs
☐ Obtaining help locating a job
☐ Obtaining help applying for a job
☐ Taking a skills/talent assessment
☐ Learning interviewing skills
Other: ☐ _____

Skip to question 16

14.   I did not use my college's career center because

Mark only one oval.

◯ I was unaware the college provided career services
◯ I did not have time to visit the career services office
◯ I could not find the career services office
◯ I did not think that career services could help me
◯ Other: _____

15.   Although I did not use the college's career center, I received help from other college staff with (select all the apply)

Check all that apply.

☐ Creating or updating a resume
☐ Obtaining advice about career options or jobs
☐ Obtaining help locating a job
☐ Taking a skills/talent assessment
☐ Learning interviewing skills
☐ I did not receive career services help from other college staff

Skip to question 16

16.   My college has connected me to employers through career fairs, job site tours, internships, or other means.

Mark only one oval.

( ) Yes   *Skip to question 18*

( ) No   *Skip to question 17*

17.   I did not make connections because

Mark only one oval.

( ) I opted out of the opportunity

( ) I was unable to attend the opportunities

( ) I was not provided any opportunity

( ) I was not provided an opportunity related to my major (area of study)

Skip to question 18

18.   My anticipated college program completion/graduation year is

Mark only one oval.

( ) 2019

( ) 2020

( ) Other

88

19.   I am a student at

Mark only one oval.
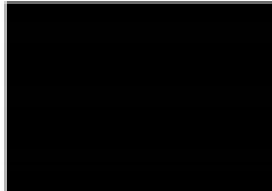
Names of colleges have been redacted as explained in methodology.

20.   My major (area of study) is in the following discipline

Mark only one oval.

◯ Agriculture and Natural Resources

◯ Architecture and Related Technologies

◯ Biological Sciences

◯ Business and Management

◯ Commercial Services

◯ Education

◯ Engineering and Industrial Technologies

◯ Environmental Sciences and Technologies

◯ Family and Consumer Sciences

◯ Fine and Applied Arts

◯ Health

◯ Information Technology

◯ Law

◯ Media and Communications

◯ Physical Sciences

◯ Public and Protective Services

◯ Social Sciences

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21. My current employment status is

Mark only one oval.

◯ Employed but not in a job that aligns with my (major) area of study

◯ Employed in a job that aligns with my major (area of study)

◯ Unemployed

22. My age is...

Mark only one oval.

◯ 19 or Less

◯ 20-24

◯ 25-29

◯ 30-34

◯ 35-39

◯ 40-49

◯ 50+

◯ Prefer not to say

23. My gender is...

Mark only one oval.

◯ Male

◯ Female

◯ Prefer not to say

90

24.   My ethnicity is...

Mark only one oval.

⬭ African-American

⬭ American Indian/Alaskan Native

⬭ Asian

⬭ Filipino

⬭ Hispanic

⬭ Pacific Islander

⬭ White Non-Hispanic

⬭ Multi-Ethnicity

⬭ Other

⬭ Prefer not to say

Appendix B - Survey Email Invitation

Body of the Email

Dear Student:

I am emailing to request your participation in a *Career Preparation Survey* of community college students who are nearing program completion.

The purpose of this survey is to gather and analyze student perspectives to expand knowledge about the effectiveness of the workforce preparation services provided by California community colleges.

Your participation in this research project is greatly appreciated and will consist of completing this short survey, which should take less than ten minutes.

To participate in this survey, you must meet the following four criteria: (1) Be 18 years or older; (2) Be currently enrolled in a Career Technical Education (CTE) program; (3) Completed college-level Mathematics and English; and (4) Obtained 45 units of college level credit.

Participation in this research is completely voluntary and there are no foreseeable risks to you.

Submission of the survey and selecting the consent option will indicate your consent to participate in this research project. Additionally, you can skip any questions you desire.

The results of this research project will be published in a dissertation but no names are being collected on the survey and your identity will remain anonymous.

By completing this survey, you will be eligible to opt-in to a drawing to receive a $25 Amazon gift card as an incentive for your participation.

This research project is being conducted independently by Amy Smith who is a doctoral student utilizing this information to complete a degree at Kansas State University. If you have any questions or concerns about this research project please contact Amy Smith via email at smithamy@ksu.edu or the Kansas State University research office at comply@k-state.edu.

Please click the following link or copy and paste into your browser to complete the survey: https://forms.gle/kN52HzoQVb1XymzW6

Thank you.

Appendix C - KSU IRB Approval

KANSAS STATE | University Research Compliance Office
U N I V E R S I T Y

TO: Dr. Margaretta Mathis   Proposal Number: 9847
        Adult Learning and Leadership
        363 Bluemont Hall

FROM: Rick Scheidt, Chair
       Committee on Research Involving Human Subjects

DATE: 08/26/2019

RE: Proposal Entitled, "California Community College Workforce Preparation Programs and Services:
        An Exploration of Efficacy from the Student Perspective"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State
University has reviewed the proposal identified above and has determined that it is EXEMPT from further
IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB.
Any change potentially affecting human subjects must be approved by the IRB prior to implementation and
may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the
Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2,
subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that
research is exempt does not imply that investigators have no ethical responsibilities to subjects in such
research; it means only that the regulatory requirements related to IRB review, informed consent, and
assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the
Chair of the Committee on Research Involving Human Subjects, the University Research Compliance
Office, and if the subjects are KSU students, to the Director of the Student Health Center.

203 Fairchild Hall, Lower Mezzanine, 1601 Vattier St., Manhattan, KS 66506-1103 | 785-532-3224 | fax 785-532-3278
comply@k-state.edu | k-state.edu/comply

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Appendix D - Chi-Square Expected and Observed Values for Major and Career Center Use

Table 10

Expected and Observed Values for Business Management Major Students and Career Center Use

			Student is a business management major		
			No	Yes	Total
Student used the career center	No	Count	73	10	83
		Expected Count	72.9	10.1	83.0
	Yes	Count	43	6	49
		Expected Count	43.1	5.9	49.0
Total		Count	116	16	132
		Expected Count	116.0	16.0	132.0
		Chi-square	p	N	df
		.00	.97	132	1

Table 11

Expected and Observed Values for Education Major Students and Career Center Use

			Student is an education major		
			No	Yes	Total
Student used the career center	No	Count	76	7	83
		Expected Count	76.7	6.3	83.0
	Yes	Count	46	3	49
		Expected Count	45.3	3.7	49.0
Total		Count	122	10	132
		Expected Count	122.0	10.0	132.0
		Chi-square	p	N	df
		.24	.63	132	1

Table 12

Expected and Observed Values for Engineering and Industrial Technology Major Students and Career Center Use

| | | | Student is an engineering and industrial tech major | | Total |
			No	Yes	
Student used the career center	No	Count	78	5	83
		Expected Count	76.7	6.3	83.0
	Yes	Count	44	5	49
		Expected Count	45.3	3.7	49.0
Total		Count	122	10	132
		Expected Count	122.0	10.0	132.0
		Chi-square	p	N	df
		.77	.38	132	1

Table 13

Expected and Observed Values for Health Major Students and Career Center Use

| | | | Student is a health major | | Total |
			No	Yes	
Student used the career center	No	Count	64	19	83
		Expected Count	61.6	21.4	83.0
	Yes	Count	34	15	49
		Expected Count	36.4	12.6	49.0
Total		Count	98	34	132
		Expected Count	98.0	34.0	132.0
		Chi-square	p	N	df
		.96	.33	132	1

Table 14

Expected and Observed Values for Information Technology Major Students and Career Center Use

			Student is an information tech major		
			No	Yes	Total
Student used the career center	No	Count	79	4	83
		Expected Count	78.6	4.4	83.0
	Yes	Count	46	3	49
		Expected Count	46.4	2.6	49.0
Total		Count	125	7	132
		Expected Count	125.0	7.0	132.0
		Chi-square	p	N	df
		.10	.75	132	1

Table 15

Expected and e Major Students and Career Center Use

			Student is a law major		
			No	Yes	Total
Student used the career center	No	Count	76	7	83
		Expected Count	75.5	7.5	83.0
	Yes	Count	44	5	49
		Expected Count	44.5	4.5	49.0
Total		Count	120	12	132
		Expected Count	120.0	12.0	132.0
		Chi-square	p	N	df
		.18	.73	132	1

Table 16

Expected and Observed Values for Public and Protective Services Major Students and Career Center Use

			Student is a public and protective services major		
			No	Yes	Total
Student used the career center	No	Count	72	11	83
		Expected Count	74.2	8.8	83.0
	Yes	Count	46	3	49
		Expected Count	43.8	5.2	49.0
Total		Count	118	14	132
		Expected Count	118.0	14.0	132.0
		Chi-square	p	N	df
		1.65	.20	132	1

Table 17

Expected and Observed Values for Social Science Major Students and Career Center Use

			Student is a social science major		
			No	Yes	Total
Student used the career center	No	Count	76	7	83
		Expected Count	75.5	7.5	83.0
	Yes	Count	44	5	49
		Expected Count	44.5	4.5	49.0
Total		Count	120	12	132
		Expected Count	120.0	12.0	132.0
		Chi-square	p	N	df
		.18	.73	132	1

Appendix E - Chi-Square Expected and Observed Values for Ethnicity and Career Center Use

Table 18

Expected and Observed Values for African-American Students and Career Center Use

			Student ethnicity is African-American		Total
			No	Yes	
Student used the career center	No	Count	75	13	88
		Expected Count	74.4	13.6	88.0
	Yes	Count	51	10	61
		Expected Count	51.6	9.4	61.0
Total		Count	126	23	149
		Expected Count	126.0	23.0	149.0
		Chi-square	p	N	df
		.07	.79	149	1

Table 19

Expected and Observed Values for Asian Students and Career Center Use

			Student ethnicity is Asian		Total
			No	Yes	
Student used career center	No	Count	81	7	88
		Expected Count	80.3	7.7	88.0
	Yes	Count	55	6	61
		Expected Count	55.7	5.3	61.0
Total		Count	136	13	149
		Expected Count	136.0	13.0	149.0
		Chi-square	p	N	df
		.16	.69	149	1

Table 20

Expected and Observed Values for Hispanic Students and Career Center Use

			Student ethnicity is Hispanic		Total
			No	Yes	
Student used career center	No	Count	44	44	88
		Expected Count	43.1	44.9	88.0
	Yes	Count	29	32	61
		Expected Count	29.9	31.1	61.0
Total		Count	73	76	149
		Expected Count	73.0	76.0	149.0
		Chi-square	p	N	df
		.09	.77	149	1

Table 21

Expected and Observed Values for White Non-Hispanic Students and Career Center Use

			Student ethnicity is White Non-Hispanic		Total
			No	Yes	
Student used career center	No	Count	77	11	88
		Expected Count	79.1	8.9	88.0
	Yes	Count	57	4	61
		Expected Count	54.9	6.1	61.0
Total		Count	134	15	149
		Expected Count	134.0	15.0	149.0
		Chi-square	p	N	df
		1.40	.24	149	1

Table 22

Expected and Observed Values for Multi-Ethnic Students and Career Center Use

			Student ethnicity is multi-ethnic		
			No	Yes	Total
Student used career center	No	Count	82	6	88
		Expected Count	82.7	5.3	88.0
	Yes	Count	58	3	61
		Expected Count	57.3	3.7	61.0
Total		Count	140	9	149
		Expected Count	140.0	9.0	149.0
		Chi-square	p	N	df
		.23	.63	149	1

Appendix F - Chi-Square Expected and Observed Values for Gender and Career Center Use

Table 23

Expected and Observed Values for Female Students and Career Center Use

			Student gender is female		
			No	Yes	Total
Student used career center	No	Count	25	62	87
		Expected Count	27.0	60.0	87.0
	Yes	Count	20	38	58
		Expected Count	18.0	40.0	58.0
Total		Count	45	100	145
		Expected Count	45.0	100.0	145.0
		Chi-square	p	N	df
		.54	.46	145	1

Table 24

Expected and Observed Values for Male Students and Career Center Use

			Student gender is male		
			No	Yes	Total
Student used career center	No	Count	63	24	87
		Expected Count	61.8	25.2	87.0
	Yes	Count	40	18	58
		Expected Count	41.2	16.8	58.0
Total		Count	103	42	145
		Expected Count	103.0	42.0	145.0
		Chi-square	p	N	df
		.20	.65	145	1

Appendix G - Chi-Square Expected and Observed Values for Major and Employer Connections

Table 25

Expected and Observed Values for Business Major Students and Connections with Employers

			Student is a business management major		
			No	Yes	Total
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	64	10	74
		Expected Count	65.0	9.0	74.0
	Yes	Count	52	6	58
		Expected Count	51.0	7.0	58.0
Total		Count	116	16	132
		Expected Count	116.0	16.0	132.0
		Chi-square	p	N	df
		.30	.58	132	1

Table 26

Expected and Observed Values for Education Major Students and Connections with Employers

			Student is an education major		
			No	Yes	Total
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	68	6	74
		Expected Count	68.4	5.6	74.0
	Yes	Count	54	4	58
		Expected Count	53.6	4.4	58.0
Total		Count	122	10	132
		Expected Count	122.0	10.0	132.0
		Chi-square	p	N	df
		.07	.79	132	1

Table 27

Expected and Observed Values for Engineering and Industrial Technologies Major Students and Connections with Employers

| | | | Student is an engineering and industrial tech major | | |
			No	Yes	Total
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	71	3	74
		Expected Count	68.4	5.6	74.0
	Yes	Count	51	7	58
		Expected Count	53.6	4.4	58.0
Total		Count	122	10	132
		Expected Count	122.0	10.0	132.0
		Chi-square	p	N	df
		2.98	.08	132	1

Table 28

Expected and Observed Values for Health Major Students and Connections with Employers

| | | | Student is a health major | | |
			No	Yes	Total
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	56	18	74
		Expected Count	54.9	19.1	74.0
	Yes	Count	42	16	58
		Expected Count	43.1	14.9	58.0
Total		Count	98	34	132
		Expected Count	98.0	34.0	132.0
		Chi-square	p	N	df
		.18	.67	132	1

Table 29

Expected and Observed Values for Information Technology Major Students and Connections with Employers

			Student is an information technology major		Total
			No	Yes	
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	71	3	74
		Expected Count	70.1	3.9	74.0
	Yes	Count	54	4	58
		Expected Count	54.9	3.1	58.0
Total		Count	125	7	132
		Expected Count	125.0	7.0	132.0

Chi-square	p	N	df
.52	.47	132	1

Table 30

Expected and Observed Values for Law Students and Connections with Employers

			Student is a law major		Total
			No	Yes	
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	66	8	74
		Expected Count	67.3	6.7	74.0
	Yes	Count	54	4	58
		Expected Count	52.7	5.3	58.0
Total		Count	120	12	132
		Expected Count	120.0	12.0	132.0

Chi-square	p	N	df
.60	.44	132	1

Table 31

Expected and Observed Values for Public and Protective Services Students and Connections with Employers

| | | | Student is a public and protective services major | | |
			No	Yes	Total
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	67	7	74
		Expected Count	66.2	7.8	74.0
	Yes	Count	51	7	58
		Expected Count	51.8	6.2	58.0
Total		Count	118	14	132
		Expected Count	118.0	14.0	132.0
		Chi-square	p	N	df
		.23	.62	132	1

Table 32

Expected and Observed Values for Social Science Students and Connections with Employers

| | | | Student is a social science major | | |
			No	Yes	Total
Student was connected to employers through career fairs, job site tours, internships, or other means.	No	Count	64	10	74
		Expected Count	67.3	6.7	74.0
	Yes	Count	56	2	58
		Expected Count	52.7	5.3	58.0
Total		Count	120	12	132
		Expected Count	120.0	12.0	132.0
		Chi-square	p	N	df
		3.99	.05	132	1