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Factors related to a college student's career optimism and their perception of career services

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Abstract

A student's expectation for a positive outcome for their future career development is referred to as career optimism. Career Services, a common university department, utilizes the social cognitive career theory (SCCT) to understand how students form career interests and make educational and vocational choices. Then Career Services can assist students in finding a career that matches their interests. We hypothesize that students' perception of the assistance provided by the Career Services department when the SCCT is applied, impacts the student's career optimism. In addition, we hypothesize, and results support, that different factors, such as a student's chosen major, impact student perception of Career Services and career optimism.

KEYWORDS

career optimism, career services, college student, perception, SCCT

Abstract

El optimismo profesional se define como la expectativa positiva de un estudiante para su futuro desarrollo profesional. En las universidades, los departamentos de servicios profesionales utilizan la teoría cognitiva social de la carrera (SCCT, por sus siglas en inglés) para comprender cómo los estudiantes forman intereses profesionales y toman decisiones educativas y vocacionales. Luego, cada departamento de servicios profesionales puede ayudar

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a los estudiantes encontrar una carrera que coincida con sus intereses. Nuestra hipótesis es que la percepción de los estudiantes sobre la asistencia brindada por el departamento de Servicios Profesionales cuando se aplica el SCCT, impacta el optimismo profesional del estudiante. Además planteamos — y los resultados respaldan — que diferentes factores, como la especialización elegida por cada estudiante, afecta la percepción del mismo sobre el departamento y su optimismo profesional.

1 | INTRODUCTION

College students' chosen majors can widely differ in economic value (Atuahene, 2021). Whereas education majors have a median earnings potential below \$50,000, engineers have median potential earnings in the six-figure range (Carnevale et al., 2011). The many financially beneficial career opportunities for business majors (Swanson & Tokar, 1991) may contribute to that major's popularity (Carnevale et al., 2011). Pharmaceutical sciences, engineering, mathematics, and computer science majors have the highest earning potential, while counselling, medical preparation, and studio arts have the lowest (Carnevale et al., 2011). Recent literature indicates that the current economic environment can impact a student's choice of major (Blom et al., 2021). The level of earnings should not be the only factor considered when choosing a major, a student should find enjoyment in their chosen field (Atuahene, 2021).

Seven hundred and twenty-nine students from universities within the United States completed an online survey upon request of a current professor. Five hundred and twenty of those students, 71.3%, utilized the Career Services department provided by their universities. The survey has students rank factors such as their likelihood of recommending Career Services to others and the effectiveness of Career Services in helping them find an internship. These attributes are consolidated to create dependent variables for career optimism, as measured by the overall student perception of Career Services, and then levels of career optimism based on selected factors, like major. The results indicate that students that secured an internship had a variety of job opportunities, received resume assistance, had a positive perception of emails from Career Services, utilized email communications for jobs, attended events such as job fairs and interview skills training, and had a higher perceived value of Career Services compared to students that did not.

Students that secured an internship, were provided high-quality companies to interview with, updated their professional profiles, presented effectively as a candidate for employment, utilized email communications for jobs, and attended events have higher career optimism compared to students that did not. Students experienced lower career optimism when utilizing online recruiting tools, and when utilizing career services to connect to employers.

Humanities, studio arts, and communications majors are more confident about their future career opportunities after using Career Services compared to other majors, indicating higher career optimism. Business, maths, science, and engineering/technology majors did not reflect higher career optimism after using Career Services, but this could be due to an already high career optimism associated with their majors.

When it comes to selecting a major, many factors like student interest, influence a student's choice. Self-belief and self-thought foster a student's motivation and guide their behaviour to achieve their goals (Elias et al., 2013). Students typically decide on a major area of study that complements their personality and that interests them (Seaman & Crooker, 1999). If a student is interested in a major, and it fits their abilities, they are more likely to be passionate about it and more academically successful (Harackiewicz et al., 2016; Paul, 2013).

Business-related majors tend to have a personality-oriented towards flexibility, innovation, risk-taking, change, and living with chaos (Shahzad et al., 2013). Humanities, studio arts, communications, science, technology, engineering, and math (STEM) majors tend to be more creative (Paulsen et al., 2021). Creative students generally are not interested in majoring in business (Myers & McCaulley, 1985). Those students who major in STEM tend to be more open, agreeable, and demonstrate an extroverted personality (Coenen et al., 2021). Regardless of the choice of major, throughout their 4 years of college, a student's personality traits tend to change to match their area of study (Vedel, 2016).

A persistent personality is an important function of the career decision-making process (Kim & Yun, 2017). A student's personality traits are correlated with their perceptions (Jonason & Sherman, 2020) and in this study, we are exploring career optimism through student perceptions of Career Services. The confidence and self-attitude of a student can impact career decisions. Many students have difficulty with the career decision-making process, which can result in a less favourable career decision (Fuqua et al., 1988; Gati et al., 1996). Career Services, using the SCCT, consider the student's personality, career interests, how they make education and vocational choices, and other factors when assisting students. Career services departments typically offer a variety of services, including (Schaub, 2012):

- College major consultation (career assessments);
- Career and graduate school exploration;
- Internships/Service Learning;
- Job Search Assistance (resume review and interview skills);
- Professional development/networking.

This research applies the core variables of the SCCT to student attitudes (self-efficacy), behaviours, and their influences (outcome expectations) as well as the factors that contribute to students' perceptions of the Career Services department and career optimism.

Career selection literature evaluates different motivating factors and influences associated with student career selection. The Career Services department helps students position themselves in the job market by assisting them in making educated choices, offering internship opportunities, resume building, interview skills training, job placement, and teaching job-hunting methods (Schaub, 2012). Career Services utilizes 'high impact practices' which include educational activities that are particularly beneficial because they allow students to interact with faculty and peers over extended periods (Kuh, 2012). As beneficial as these services are, one study reported only 61% of students who earned degrees between 2010 and 2016 visited their institution's Career Services office (Dedman, 2017). This percentage has remained stable over time, presenting a challenge for Career Services departments to engage students and acquire additional resources, such as personnel or technology (e.g., resume review software). Some students are financially sound and capable of securing employment after graduation without using the services offered by the Career Services centre. However, those students who are underrepresented on campus (e.g., first-generation, racial/ethnic minorities, students with disabilities, students from lower socioeconomic backgrounds and LGBTQ+ students) will have difficulties securing gainful employment and may fall into unemployment or underemployment situations (Guendelman, 2019). Students' perceptions of provided services vary, so it is important to determine what career services students value (Lee & Patel, 2020).

A survey was developed as a culmination of prior surveys referenced below to capture student perceptions of Career Services. Students were required to answer questions based on a five-point Likert-type scale that addressed six perceptions related to Career Services (Appendix A). This research seeks to investigate the factors that impact college students' perceptions of Career Services, which affects the students' career optimism.

2 | SOCIAL COGNITIVE CAREER THEORY AND CAREER OPTIMISM

In this research, we explore students' perceptions of Career Services through the social cognitive career theory (SCCT) interest, choice, and performance models. The SCCT focuses on three interrelated aspects of career development: how academic and career interests develop and contribute to life circumstances (self-efficacy), how educational and career choices are made (perceived outcomes), and how academic and career success is obtained and shaped by social cognitive theories (Bandura, 1997, 2005). The SCCT is relevant to Career Services because they incorporate student attributes that promote self-efficacy and lead them to set goals, explore careers, choose a career, and ultimately impact the outcome expectation of career optimism (Rogers & Creed, 2010).

Factors influencing career choice include self-efficacy, outcome expectations, goals, life experiences, demographics, and other contextual factors (Lent et al., 1994). A student may have a job in mind that they would like to pursue, which Career Services can foster, even if their advice does not include selecting a major based on the job (Supiano, 2014). A student's sense of calling can have a stronger influence than self-efficacy on career outcomes (Kaminsky & Behrend, 2015), as can other factors such as socio-economic and family influence (Goyette & Mullen, 2006). University Career Services departments assist students, alumni, faculty, and employer clients by assisting with career fairs, career workshops, internships, resumes, cover letters, job interviews, and coaching to find jobs that align with the student's interests (Pope & Hutchison, 2018).

The University Career Services department is considered among the most crucial services in any university (McGrath, 2002). Career Services offers 'high impact practices' to help position students for success post-graduation (Kuh, 2012). If a student has not already decided, Career Services can assist a student in selecting a field of study. Once a student has selected a major field of study, this often leads to their future career choice. As a result of choosing their major, the student's career optimism, which is to "expect the best possible outcome or to emphasize the most positive aspects of one's future career development" (Rottinghaus et al., 2005, p. 11) should increase. The student's satisfaction with their chosen academic major is positively correlated with career optimism (McIlveen & Perera, 2016). Research suggests that many students do not factor Career Services guidance into their decision process when selecting a major, instead, they rely on matches with their interests and abilities, attributes of the major, future job characteristics, financial benefits, social benefits, and information searches (Beggs et al., 2008). When measuring career optimism, researchers are called to consider the influence of career optimism on career exploration and integrate theoretical approaches to investigate how career optimism develops and enhances attitudes and behaviours (Eva et al., 2020).

3 | HYPOTHESES

Investigating students' experiences with Career Services can provide insightful guidance for the department's future communications and service offerings. The combination of services provided by the Career Services department, emails sent, website information along with student major, involvement, engagement, and initiative are variables to be studied as influential to students' perceptions of the Career Services department. We use the rating of the student experience of the services provided as a dependent variable for the overall perception of Career Services. Therefore, we posit:

Hypothesis 1 Students' perceived value of Career Services will be influenced by association with the services provided.

A student's assessment of the services they anticipate receiving leads to their perceived value of the Career Services department (Zeithaml, 1988). Once a student has engaged in services, they have experience and can set an expectation for future visits (Abele et al., 2000). Traditional theories like the SCCT and its concepts of

self-efficacy, outcomes expectations, and goal setting (Lent et al., 1994) dominate Career Services (Niles & Harris-Bowlsbey, 2005; Swanson & Fouad, 2010; Zunker, 2002). Using these concepts, a Career Services office assists students in updating resumes, completing online job applications, and connecting to employers. We anticipate all these services will increase the student's confidence in their ability to secure a future career as well as have a positive outlook on their future. Therefore, we rationalize:

Hypothesis 2 Students' career optimism will be influenced after visiting the Career Services department.

The Career Services department assists students in selecting a major field of study if they are currently undecided or looking to change majors (Schaub, 2012). Students focus on their interests and abilities as well as major attributes when deciding on a field of study (Beggs et al., 2008). The chosen major can impact the student's career satisfaction. Career optimism has a larger influence than self-efficacy on career satisfaction (McIlveen et al., 2013). Some equate salary to career optimism. Business students have high expectations regarding salaries and other benefits (Farah & Ali, 2018). Students with a lower socioeconomic background will be more likely to choose a major that is vocational (Goyette & Mullen, 2006). No matter their choice, most students seek a major that aligns with their interests and abilities (Denice, 2021). Often students select a major by process of elimination rather than actively selecting a major (Beggs et al., 2008). Because of the high uncertainty associated with the multitude of college majors available, we contend that:

Hypothesis 3 A student's level of career optimism will be influenced after visiting Career Services, based on student factors like major.

4 | METHOD

4.1 | Procedure

Ethical approval for this survey research was provided by the University Institutional Review Board. Students completed a survey developed as a culmination of prior surveys to capture student perception of Career Services. Students were required to give their assessment of statements based on a 5-point Likert-type scale. Questions addressed different areas of a student's overall perception of their career services office regarding its location, resources, connections, and social media. This research seeks to investigate the factors that impact college students' perceptions of Career Services and their resulting career optimism. Students attending American universities were invited to complete the online survey using Qualtrics. The survey collected responses for 17 days during the fall semester of 2020.

4.2 | Participants

Participants were recruited from 156 universities within the United States, ranging from freshman to graduate students majoring in various disciplines. In all, 1105 respondents ranging in age from 18 to 40 years of age attempted the survey. Incomplete surveys were excluded, along with students who did not utilize the benefits offered by Career Services, leaving a sample of 520 students. The final sample consists of 295 (43.27%) women and 225 (56.73%) men, ($M_{\text{age}} = 20.72$ years; $SD_{\text{age}} = 1.75$ years). Undergraduate majors of the participants include 47.9% in business; 10.4% in education; 17.7% in maths, science, and engineering/technology; 11.7% in humanities, studio arts and communications and 12.3% in social sciences. Their responses related to their perceptions of Career Services based on surveyed factors and career optimism.

4.3 | Measures

The literature presents variability in student use and perception of Career Services. Therefore, this study attempts to examine areas that might serve as an antecedent to perceptions of Career Services so that universities can better engage their students. In addition, this study can increase future employers' understanding of student usage of Career Services which can lead to modified usage by future employers and a connection to future employees through internships and full-time jobs.

4.3.1 | Student perceptions of career services

Most students' perception of Career Services is the dependent variable of focus in this study. Initially, students were asked to select the number of times they interacted with a university's Career Services department since starting college, ranging from 0 to 21+ interactions. To measure their experience with Career Services, we used six items adapted from Chin et al. (2018) and Bridges III (2014). A 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used, and example items include: 'Career Services helped me secure my internship,' and 'Career Services assists students with many aspects of their job-hunting journey at school.'

4.3.2 | Importance of services offered

A survey was adapted from Garver et al. (2009) to examine the importance of the services offered by Career Services. We asked participants to, "Rate the following statements regarding the importance of the services offered by Career Services" using a 5-point Likert-type scale. An example of one of the 11 items used to measure the importance of services offered was: 'Quality of companies to interview with.'

4.3.3 | Email usage

One way Career Services communicates its services to students is through email. The Career Services department needs to be as beneficial as possible to the greatest number of students, so they need to reach out to students (McGrath, 2002). Items to measure email usage were adapted from Cases et al. (2010). Respondents were asked to answer two items using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree): 'I like to receive emails from my Career Services office', and 'I have been persuaded to attend events or explore promoted jobs/internships after receiving emails from my Career Services office'.

4.3.4 | Social media

Along with email communication, Career Services also uses various social media outlets to inform students of their services. Social Media is considered an effective tool to engage university students (Dey & Cruzvergara, 2014). Items to measure social media use were adapted based on research relative to perceptions of opinion leadership in social media; for example, the type of content published on an Instagram account can cause a user to be perceived as an opinion leader (Casaló et al., 2018). To measure opinion leadership, an example item rating a student's perceived social media opinion using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was: 'The Career Services (at my university) social media account serves as a model for others.'

4.3.5 | Initiative

We adapted items to measure student initiative from Danielsen et al. (2010), and Bolino and Turnley (2005). Student initiative was measured using a 5-point Likert-type scale ranging from 1 (never) to 5 (always) with an example item being: 'I challenge myself when I am doing schoolwork'. Once students have taken the initiative to take advantage of the services provided by Career Services, their level of engagement will be reflected.

4.3.6 | Student engagement

Items to measure student engagement were adapted from Mazer (2012). To measure engagement, respondents were asked to respond to 6 items using a 5-point Likert-type scale; an example item was: 'I actively participate in class and/or discussions.' An engaged student will usually want to be involved in other activities within the institution.

4.3.7 | Student involvement

Items to measure student involvement were adapted from Trolan (2019) and Šimičević and Štetić (2017). To measure student involvement in college, we used four items, with an example item being: 'I hold or have held membership in a student organization(s).'

4.3.8 | Student major

To identify student majors, the respondents select from five provided options: (1) business—management, marketing, economics, accounting, finance, hospitality; (2) humanities, studio arts, communication; (3) social sciences, (4) education and (5) maths, natural science, engineering/technology.

4.3.9 | Student grade point average

If students do not maintain a minimum required grade point average while fulfilling their coursework towards their respective major, they will not graduate (McGrath & Burd, 2012). Students were asked to select their overall GPA in college. The survey responses consisted of: Below 2.0; 2–2.50; 2.51–3.00; 3.01–3.50 and 3.51–4.00. On a 4.0 scale, an "A" grade GPA is reflected as 4.0; "B" as a GPA of 3.0 to, but not including, 4.0; "C" as a GPA of 2.0 to, but not including, 3.0; "D" as a GPA of 1.0 to, but not including, 2.0 and "F" as a GPA of 0.0 to, but not including, 1.0. The ranges provided to the respondents gave more flexibility to determine if the student is perhaps a B+ student, instead of a B, as an example. Students with a low GPA use campus services significantly more than those who ultimately left the university due to poor grades (Churchill & Iwai, 1981).

4.3.10 | Control variables

The final sample of this study consists of college students attending institutions in the United States. We controlled this in two ways: first, the survey was only sent to schools in the United States, and second, we asked a single

question. Participants were asked (1 for yes and 2 for no) if they were currently enrolled as a student. Those that were not students and had not utilized career services at least 1 time were not included in the final sample.

5 | RESULTS

5.1 | Results of regressions

Hypothesis 1 Students' perceived value of Career Services will be influenced by association with services provided (Table 1).

TABLE 1 Regression results for student perception of career services

Variable	Coef.	Std. error	t	p > t
CS				
Int	2.5002	0.1907	13.11	.000
JO	1.2525	0.3525	3.55	.000
RS	1.1895	0.3423	3.47	.001
RE	0.6915	0.2353	2.94	.003
AE	1.0318	0.2437	4.23	.000

Note: The regressions use data from a survey collected in fall 2020. The sample consists of 520 responses from students attending American institutions of higher education. The dependent variable CS is an increasing variable if the perceived value of career services increases. Control variables are defined as follows: *Int*, Career Services helped to secure the student's internship; *JO*, there are a variety of job opportunities provided by Career Services; *RS*, Resume critiquing services provided by Career Services; *RE*, the student likes to receive emails from Career Services; *AE*, the student has been persuaded to attend events or explore promoted jobs/internships after receiving emails from Career Services.

Hypothesis 2 Students' Career Optimism will be influenced after visiting the Career Services department (Table 2).

TABLE 2 Regression results for student career. optimism based on services provided

Variable	Coeff.	Std. error	t	p > t
CO				
Int	0.4204	0.0304	13.83	.000
Inv	0.1630	0.0579	2.81	.005
PPP	0.1763	0.0550	3.21	.001
On	−0.1838	0.0565	−3.25	.001
Eff	0.2990	0.0839	3.57	.000
Conn	−0.190	0.0795	−2.39	.017
AE	0.1235	0.0345	3.58	.000

Note: The regressions use data from a survey collected in the fall of 2020. The sample consists of 520 responses from students attending American institutions of higher education. The dependent variable CO is an increasing variable if the career optimism of the student increases. Control variables are defined as follows: *Int*, Career Services helped to secure the. student's internship; *Inv*, the quality of companies provided by career services to interview with; *PPP*, Career Services assistance updating personal professional profiles; *On*, Utilizing an online recruiting system; *Eff*, Career Services' ability to help the student present him/herself effectively as a candidate for employment; *Conn*, Career Services' ability to connect the student to employers; *AE*, the student has been persuaded to attend events or explore promoted jobs/internships after receiving emails from Career Services.

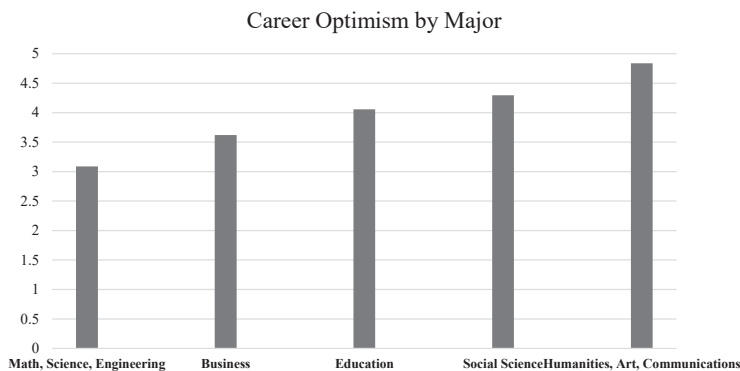
Hypothesis 3 A student's level of Career Optimism will be influenced after visiting career Services, based on student factors like major (Tables 3 and 4).

TABLE 3 Regression results for student career optimism based on student factors

Variable	Coeff.	Std. error	t	p > t
CO				
Init	−0.011	0.0202	−0.55	.583
Eng	0.0194	0.0121	1.60	.110
Inv	0.0046	0.0125	0.37	.714
Maj	0.1625	0.0205	7.91	.000
GPA	−0.0109	0.0477	−0.23	.820

Note: The regressions use data from a survey collected in fall 2020. The sample consists of 520 responses from students attending American institutions of higher education. The dependent variable CO is an increasing variable if the career optimism of the student increases. Control variables are defined as follows: *Init*, Student initiative is demonstrated by Setting goals; *Eng*, Student engagement is measured by studying and asking Questions during class; *Inv*, Student involvement is measured by participating in clubs, volunteering, or having an established network; *Maj*, Student selected Undergraduate major; *GPA*, grade point average.

TABLE 4 Career optimism after visiting career services, based on student major



Note: The survey results were collected in the fall of 2020. The sample consists of 520 responses from students attending American institutions of higher education. The dependent variable Career Optimism is an increasing variable if the career optimism of the student increases. Major is a statistically significant variable that reflects career optimism after visiting career services. The humanities, art, and communications majors reflect the highest degree of career optimism in the sample.

5.2 | Results analysis

The results indicate that students that secured an internship, had a variety of job opportunities, received assistance with resume critiquing, liked getting email, utilized email communications for jobs, and attended events have a higher perceived value of Career Services compared to students that did not. These factors support: *Students' perceived value of Career Services will be influenced by association with services provided*, indicating that we fail to reject this hypothesis.

Students that secured an internship, had high-quality companies to interview with, updated their professional profiles, presented effectively as a candidate for employment, utilized email communications for jobs, and attended events have higher career optimism compared to students that did not. Students experienced lower career optimism when utilizing online recruiting tools and using Career Services to connect to employers. This presents

an opportunity for further investigation as more and more Career Services offerings are moving online. These results support: *Students' Career Optimism will be influenced after visiting the Career Services department*; therefore, we fail to reject this hypothesis.

Humanities, studio arts, and communications majors are more confident about their future career opportunities after using Career Services than the other majors, indicating higher career optimism. There was an unexpected result that showed maths, science, and engineering/technology majors did not have an increased career optimism after using Career Services. This may be because STEM majors have overconfidence (Hall & Sverdluk, 2016) and greater clarity about their future career goals before utilizing Career Services. These results present an opportunity for further investigation. GPA did not prove to be a statistically significant factor. In addition, engagement, involvement, and initiative did not provide statistically significant results to support our hypothesis related to student career optimism after visiting Career Services. These results support our hypothesis that: *A student's level of Career Optimism will be influenced after visiting Career Services, based on student factors like major*; where we determine that major is a statistically significant factor that influences a student's level of career optimism. Therefore, we fail to reject this hypothesis as it shows statistically significant results for career optimism based on a student's major.

6 | DISCUSSION

Students' perceptions of the Career Services department are influenced by factors that are meaningful to the student, such as assistance with internships and resume writing. This research sought to examine which variables play a significant role in: how students perceive the value of the Career Services department; students' overall career optimism after visiting Career Services; and students' career optimism based on factors like major after visiting Career Services. This research also considers the role of the SCCT, specifically self-efficacy and perceived outcomes, in the student's perceived value of Career Services.

According to the SCCT, individuals are contributors to their life circumstances rather than a result of circumstances (Bandura, 2005). Students that engaged in the activities provided by Career Services perceived a higher value in the offerings of the department. Services included helping secure an internship, providing a variety of job opportunities, providing resume critiquing services, and sending emails that persuade the student to attend events or explore promoted jobs/internships. The communication sent to students speaks to the action orientation of the SCCT incorporated into the Career Services department. Students benefit from guidance and advice to choose the best-suited career path. Humanities, studio arts, and communications majors have higher career optimism after utilizing the services associated with securing an internship, updating their personal professional profile, presenting themselves effectively as a candidate for employment, attending events, or exploring promoted jobs/internships, and after receiving communications from Career Services. These services foster human agency in the SCCT, wherein students exhibit greater intentionality and future-directed plans, leading to higher career optimism. In addition, the quality of companies provided to students for job and internship interviews increased career optimism. Students who only interacted with Career Services through the online recruiting tools and relied on Career Services to connect with employers resulted in lower career optimism. Visualized futures can serve as motivators of behaviour (Bandura, 2005), so students may be able to better imagine their futures when using in-person services to talk through their goals and desires face to face, rather than online. This result is worth further investigation as more Career Services offices are increasing their online offerings.

People organize themselves into social systems to help guide their activities. The social system a student is organized in can impose constraints while providing resources and opportunities for personal development (Bandura, 1999). Services offered by universities, specifically Career Services, guide students in developing and identifying a career choice (Khachan Jr, 2020) and provide students with the resources and opportunities to organize into separate majors. Unfortunately, utilizing Career Services is not near the top of the student

decision process when it comes to choosing a major (Beggs et al., 2008). Students are more likely to seek guidance from their social groups. Being aware of this, the Career Services department will consider the SCCT that lends itself to social applications, guiding how to enable people to effect personal change (Bandura, 2005). To assist with motivating students to change how they utilize the services provided by their universities, Career Services must embrace technology, focus on lifelong learners, leverage the “multiplier effect” to connect with students, and engage a diverse student body (Rayman, 1999). Students gain knowledge from and are influenced and inspired by their peers. Considering student interests and goals and utilizing student feedback to create content and communication for Career Services is influential in the student perception of the Career Services department. Once individuals learn a guiding principle (such as how to secure an internship/job/network), they can use this information to change or modify their behaviour for future circumstances. The Career Services department preparing students to effectively present themselves as a candidate for employment through modelling tactics resulted in a high outcome for student career optimism associated with Career Services as shown with the positive significant coefficient result of 0.299. Job placement through internships provided the most value in increasing student career optimism when utilizing Career Services, as shown with a positive significant coefficient of 0.4204.

The practice of personal agency over the direction of an individual's life can vary depending on the nature and flexibility of their environment (Heffernan & Ward, 2015). We contemplated that a student's level of involvement, engagement, initiative, grade point average, and major would be reasonable indicators of career optimism, but only one of those variables provided a statistically significant result: major. Change can be contingent on the adaptability of different environments and levels of personal agency. This is often a result of what people take and make of their environments. After visiting Career Services, humanities, studio arts, and communications majors reflected the highest level of career optimism compared to the other represented majors. Liberal arts majors are considered foundational majors for future learning in professions and can outearn their peers in the long run (Supiano, 2014). We initially assumed that the science, technology, engineering, and math majors would have increased career optimism after visiting career services, but given the results, we now conclude that they already have high career optimism once they identify as a science major (Pitt et al., 2020). Findings confirmed that perceptions of the Career Services department are fueled by career and resume services, email communications, and the department's ability to provide a variety of job opportunities to students. Having many opportunities gives students the ability to choose. Self-efficacy plays an influential role in how students create and manage their circumstances, the paths they take, and what they eventually become (Bandura, 2005).

6.1 | Limitations

The data support the proposed models. The findings of our study are limited in that they are based on survey results from students in higher education located within the United States. In addition, the survey was conducted in the fall of 2020, which was the first full semester of the Covid-19 pandemic. Many Career Services departments provided limited services or were closed completely during that time. Therefore, additional study is needed to conclude the generalization of the results and to determine if the pandemic impacted the responses of the students being surveyed.

6.2 | Practical contributions and future research

Career Services departments over time have plateaued, with student engagement at historical lows (Dedman, 2017). Students and technologies have drastically changed, and new channels must be considered to engage and retain students and foster positive perceived outcomes associated with using Career Services. The characteristics and

attributes the authors have identified are recommended for inclusion in Career Services' overall marketing communications strategies and service offerings. Further research to understand communication channels, frequency, word-of-mouth opportunities, online versus offline services, and ranking of the university being attended should be considered.

With engagement rates at nearly 61%, there exist opportunities for Career Services in academic institutions, private industry, and personnel development technology organizations to understand student perceptions and considerations when preparing for a job search.

FUNDING INFORMATION

No financial or technical assistance was received.

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX A

ADDITIONAL SURVEY ITEMS RELATED TO EACH VARIABLE

*Student Experience

Career Services provides appropriate resources that reflect my cultural/ethnic background.

I currently am or plan to utilize the services provided by Career Services.

I would recommend Career Services to another student.

After using Career Services, I feel more confident about my future.

The location of Career Services is convenient.

The Career Services website provides helpful information.

Career Services helped me secure my internship.

*Importance of Services Offered

Variety of job opportunities.

Provides different job search strategies.

Resume critiquing services.

Career and Major Decision.

Updating personal professional profiles (LinkedIn).

Finding internships.

Job fairs (virtual and on-campus).

Online Recruiting System (Example: Handshake).

Presenting myself effectively as a candidate for employment.

Connecting to employers.

*Social Media

The Career Services (at my university) social media account influences students' career outlook.

I use the Career Services social media account (at my university) as a source of information. The Career Services social media accounts (at my university) are highly unique.

Posts are made frequently on the Career Services social media accounts (at my university).

Posts on the Career Services social media accounts (at my university) are of high quality.

*Initiative

I concentrate when I am doing schoolwork.

I set goals for myself.

I frequently check my email or voicemail.

*Student Engagement

I attend class regularly.

I ask questions if something is unclear.

I study for quizzes and/or tests.

I take it upon myself to read additional material in the course topic area.

I complete assignments/coursework.

I contact instructors about my progress in the course.

*Student Involvement

I participate in community service or volunteer work.

I have built a network of contacts or friendships to provide me with help or advice that will further my work chances.

I think that internships are an essential part of the learning process.

I've had or am interested in having an internship.