Exploring the Prior Experiences and Self-Efficacy of Career Coaches in Maryland

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Abstract

In 2020, Maryland's legislators approved the Blueprint for Maryland's Future, a major investment in K-12 education that mandates access to career counseling for all middle and high school students (MSDE, 2024). This requirement has fueled efforts across the state to recruit and train individuals for newly created career coaching roles. While the importance of career counseling for all secondary level students has received strong support from most stakeholders, there have been questions surrounding who is providing these career coaching experiences. In light of those questions, this study explored the background characteristics, preparation experiences, and career counseling self-efficacy levels of 72 career coaches and school counselors from nine school systems in Maryland. Survey responses identified unique background and preparation experiences between career coaches and school counselors. Correlational analyses found a number of characteristics to be significantly associated with stronger career counseling self-efficacy levels. This study has implications for informing career coaching recruitment and training efforts implemented by school systems, local workforce development boards, state departments of education, and other stakeholders.

Background

In 2020, legislators made a historic investment in Maryland's K-12 public education system with the approval of House Bill 1300, also known as the Blueprint for Maryland's Future Act (MSDE, 2024). It represents a multi-billion dollar investment to be implemented over a ten-year span. The Blueprint provides mandates for five policy areas, referred to as pillars. Pillar 3 specifically focuses on college and career readiness. One of the mandates in Pillar 3 requires school systems to provide access to career counseling for every secondary level student. Additionally, Maryland Code, Education §7–127 (2021) specifies that school systems must "provide each middle and high school student in the county with individualized career counseling services" that "shall help each student choose one or more post–college and career readiness pathways." Who should deliver individualized career counseling and what credentials are needed is at the discretion of each local school system. Given that many school systems did not have dedicated career coaching positions to deliver career counseling on this scale, this new mandate has left many school systems scrambling to quickly find career coaches.

Some school systems in Maryland are working with their local workforce development board to recruit, hire, train, and supervise new career coaches. This has resulted in some limitations related to the role that career coaches have within a school. For example, in one school system the career coaches are restricted from teaching lessons (ex. career and college readiness courses) because they are not hired by the school system under the bargaining agreement for teachers; rather, they are employed through the local workforce development board. This has resulted in a sense of disconnect for some career coaches as they struggle to conceptualize their role and the expectations for helping school systems meet the ambitious goals of the Blueprint. Other school systems have elected to handle the recruiting, hiring, training, and supervision of their career coaches internally instead of placing the responsibility on their local workforce development board. These school systems transitioned currently employed educators into career coaching roles. This strategy has provided greater opportunities for school systems to broadly define the roles and expectations of their career coaches since current educators usually possess teaching licensure. While these career coaches often have licensure in a career and technical education (CTE) or closely related field (e.g., technology and engineering education), there is still some variance among the licensure areas of career coaches in Maryland. One

disadvantage of this model is that the career coaches can be tasked with a breadth of responsibilities similar to full-time teachers (covering courses due to staffing shortages, hallway or lunch duty, etc.), which can detract from their time and focus dedicated to career coaching.

Moreover, some school systems are relying on their school counseling department to devote more time to career counseling, while some are upskilling their work-based learning (WBL) coordinators to provide career coaching. Broad variances are noticeable from the job titles that were created by each school system for those tasked with delivering career counseling or career coaching. Examples of these job titles include career coach, career advisor, and career navigator, among others. Differences in career coaching among Maryland's school systems striving to meet the same Blueprint goals are also evident from the array of job descriptions, hiring requirements (e.g., some require applicants to earn their Global Career Development Facilitator [GCDF] credential), and training/professional development efforts being implemented.

Defining the Roles and Expectations of Career Coaches in Maryland

In an effort to unify the state's CTE priorities while staying true to the Blueprint, the CTE Committee of the Governor's Workforce Development Board (GWDB) released a draft of "Maryland's CTE Framework" (GWDB, 2024) at the request of school system leaders seeking additional guidance. This framework was released approximately three years after school systems had started implementing their locally developed initiatives focused on meeting the ambitious goals mandated by the Blueprint. One of the five priorities within the framework is to, "Build a world-class career coaching system that supports student success in College & Career Readiness pathways and post-graduation plans aligned to their skills, interests, and values" (GWDB, 2024). To offer further clarity about this priority, the GWDB included this description:

> Empowering learners in navigating their career journey requires comprehensive, accessible, and connected career coaching programs that start by engaging young learners. As students develop a solid understanding of their skills, interests, and values, with the support of career coaches, they and their families will be equipped to make informed decisions about the post-College and Career Readiness (CCR) pathway that is most aligned to their future goals. These post-CCR pathway options include CTE programs of study, including those that support Registered Apprenticeship participation or attainment of other industry-recognized credentials, as well as other pathways. (p. 2)

Many school systems are relying on this description as their compass to help inform career coaching decisions and implementation efforts.

Training and Equipping Career Coaches

While the aforementioned framework provides much needed guidance on the state's expectations for career coaching, there are many questions still being raised by school systems and career coaches. Contributing to these questions is the lack of research on the background and preparation experiences of those providing career coaching for Maryland's K-12 students. This study aims to address that gap by investigating the background and preparation experiences of individuals providing career coaching in Maryland, and examining the associations between participants' prior experiences and their career counseling self-efficacy. Furthermore, this study compares the prior experiences and self-efficacy levels between 72 career coaches and school counselors who were providing career coaching in Maryland. Data-informed recommendations

are provided to help school systems, local workforce development boards, state departments of education, and other stakeholders improve career coaching recruitment and preparation efforts.

Literature Review

Providing career information and counseling in secondary (middle and high) schools allows students and families to be informed and begin considering how their skills, interests, and values align with potential career pathways, job opportunities, or other post-secondary options. The Learning Theory of Career Counseling (Krumboltz, 1996, 1999) and Social Cognitive Career Theory (SCCT) (Lent et al., 1994) both attest that environments impact the ability to and process of making informed career decisions. A school environment is situated within a community which houses the people, resources, and opportunities available to students as they consider post-secondary and career options. Young adolescents (with the support of their parents/guardians) begin making decisions during their middle school years regarding academic coursework. However, the ways of thinking, interests, and desires of secondary students shift throughout adolescence and into young adulthood; therefore, exposure to a variety of careers and post-secondary options supports their growth (ASCA, 2024).

While change occurs, early course selection decisions in middle school are important due to the impact they have on the availability of access to choices in a high school curriculum. School counselors often work in collaboration with teachers to provide students in K-12 with developmentally appropriate connections to the world of work, and help students plan the transition from school to post-secondary education and/or the world of work (ASCA, 2024). School counselors familiarize students with CTE pathways and hands-on training opportunities (e.g., apprenticeships, WBL placements), which can be critical to students' career development (ACTE, 2024). In addition, school counselors work with students who have interest in pursuing dual enrollment or advanced placement courses to begin working towards a degree while still in high school. Depending on the needs of the community and the knowledge and skill of those providing career coaching or counseling, students might be guided into a career path that favors the workforce needs rather than the career aspirations of the student. Without adequate information, support, advising, and individualized career counseling, students may not have the resources to make an informed decision as they transition to life after high school. With the GWDB's desire to build a world-class career coaching system to support student success (GWDB, 2024), students and families need support from trained career counselors and/or coaches to identify what student success means to them, their current situation, and future opportunities.

Self-Efficacy and Career Counseling

Albert Bandura (1997) defined self-efficacy as, "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Educational research has found educator's self-efficacy to be linked with instructional quality (Holzberger et al., 2013) and their students' academic achievement (Ross, 1992; Tschannen-Moran & Barr, 2004). Sanders et al. (2017) highlighted similarities between teaching and career counseling, suggesting that teaching experience could influence one's career counseling self-efficacy. However, the literature indicates that career counseling self-efficacy can be influenced by many factors, such as graduate coursework, internship experiences, professional development (PD), and years of career counseling experience (Barbee et al., 2003; Lent et al., 2003; O'Brien et al., 1997). Based on Bandura's (1997) concept of self-efficacy, it could be presumed that those who

have greater confidence in their career counseling skills and expectations for their students are likely to have a greater influence on their students' preparedness to navigate difficult career and post-secondary decisions. Hence, examining the career counseling self-efficacy of individuals who are tasked with providing career counseling and/or coaching to students can serve as a feasible data collection point to measure one's confidence in achieving desired career counseling outcomes (Bodenhorn, 2001).

Previous Research on Career Counseling Self-Efficacy

A review of the literature revealed that most career counseling studies designed to measure self-efficacy focus on measuring the self-efficacy of those who have received career counseling rather than the self-efficacy of the individuals providing career counseling and/or coaching. Examples of these studies include those measuring self-efficacy as it relates to interests, goals, outcome expectations, and actions (Lent et al., 2008; Nauta et al., 2002; Rottinghaus et al., 2003; Sheu et al., 2018), and examples of career self-efficacy studies incorporating cross-cultural considerations (Lent et al., 2010; Lent et al., 2013; Navarro et al., 2014; Sheu & Bordon, 2017).

Additional self-efficacy studies have addressed a variety of topics such as satisfaction and well-being as it relates to work (Lent & Brown, 2006, 2008; Minor & Farley-Smith, 2024; Sheu & Lent, 2009). There are also studies related to self-efficacy and work performance (Judge et al., 2007; Sitzmann & Yeo, 2013). While research has been conducted related to the self-efficacy of those providing career counseling (Betz et al., 1996; Heppner et al., 1998; Lent et al., 2003; O'Brien et al., 1997; Perera & McIlveen, 2017; Tang et al., 2004), there is limited research specific to the self-efficacy of people providing career counseling in secondary school settings (Edwin & Fisher, 2023; Parikh-Foxx et al., 2020; Sanders et al., 2017).

Purpose and Research Questions

This research investigated the prior experiences and career counseling self-efficacy of individuals tasked with providing career coaching for K-12 students in numerous school systems across Maryland. The purpose for this study was to gain a better understanding about the prior experiences of those tasked with providing career coaching in Maryland's public school systems, measure their self-efficacy toward career counseling, and examine what prior experiences were significantly associated with their career counseling self-efficacy levels. Insight gained from the review of literature, along with the hypothesized differences in preparation and counseling related experiences, prompted the researchers to further examine if there were significant differences between career coaches and school counselors. The following research questions were developed to guide this study:

RQ1: What are the background and preparation experiences of individuals providing career coaching for K-12 students in Maryland?

RQ2: What are the career counseling self-efficacy levels of individuals providing career coaching for K-12 students in Maryland?

RQ2, SQ1: To what extent do career counseling self-efficacy levels differ between career coaches and school counselors?

RQ3: To what extent are the background and preparation experiences of individuals providing career coaching for K-12 students in Maryland associated with their career counseling self-efficacy?

RQ3, SQ1: Are there identifiable differences between career coaches and school counselors regarding the background and preparation experiences that are significantly associated with their career counseling self-efficacy?

Methods

Research approval was granted by the offices of research protections at the researchers' universities. Applications to conduct research were then submitted to the accountability and research protections offices at 14 school systems across the state, of which nine granted approval at the time of this study. Following these approvals, the survey was sent out to career coaches and school counselors via email in the fall of 2024, and one follow-up reminder was sent to encourage voluntary participation outside of school hours. On average, the survey took participants 12 minutes to complete. The survey responses were organized and analyzed quantitatively in SPSS. The instrumentation and data analyses are described in greater detail in the subsequent sections.

Instrumentation

The survey instrument consisted of three sections. Section one included researcher developed demographic questions to collect nominal, ordinal, and open-ended responses about participants' background and preparation experiences. Section two included reliable and validated Career Counseling Self-Efficacy Scale-Modified (CCSES-Modified; O'Brien et al., 1997) items, and section three consisted of the Career and Academic Development (CAD) subscale from the reliable and validated School Counselor Self-Efficacy Scale (SCSE; Bodenhorn & Skaggs, 2005). The 5-point Likert scale CCSES-Modified and CAD items were the same as those used in Sanders et al.'s (2017) study. The CCSES-Modified instrument has four subscales related to career counseling: (a) Therapeutic Process and Alliance Skills (TPAS), (b) Vocational Assessment and Interpretation Skills (VAIS), (c) Multicultural Competency Skills (MCS), and (d) Current Trends in the World of Work, Ethics, and Career Research (TWER). Those subscales are described in Table 1 along with the CAD subscale from the SCSE.

Table 1

Instrument Subscale Descriptions

CCSES-Modified Subscale	Description
Therapeutic Process and Alliance Skills (TPAS)	Measures one's confidence in developing a therapeutic relationship, providing support, synthesizing information, identifying barriers, and terminating the career counseling relationship in an effective manner.*
Vocational Assessment and Interpretation Skills (VAIS)	Measures confidence in one's ability to select appropriate instruments to assess interests, values, and personality and to explain assessment results to students.*

Multicultural Competency Skills (MCS)	Measures the importance of multicultural counseling competencies in interventions with students. Specifically, this construct assesses confidence in understanding special issues related to ethnicity, gender, and sexual orientation in both the workplace and career decision making.*
Current Trends in the World of Work, Ethics, and Career Research (TWER)	Measures knowledge of current research findings, ethical and legal issues, and local and national job market trends.*
SCSE Subscale	**Description**
Career and Academic Development (CAD)	Measures self-efficacy in the career domain as it relates to the comprehensive nature of a school counseling program.**

Note. * = Derived from O'Brien et al. (1997, pp. 23-24); ** = Derived from Sanders et al. (2017, p. 242).

O'Brien et al. (1997) found the full CCES-Modified instrument to have a strong internal consistency reliability coefficient of 0.96 and acceptable convergent, discriminant, and construct validity measures. Bodenhorn and Skaggs (2005) found the SCSE to have acceptable construct validity, and the CAD subscale had an acceptable internal consistency reliability coefficient of 0.85. Similarly, Cronbach's alpha tests were conducted to measure the internal reliability of the survey items used in this study, which revealed excellent reliability for the 25 CCES-Modified items (α=0.920) and good reliability for the seven SCSE-Subscale items (α=0.852). Cronbach's alpha tests were also conducted for each subscale of the CCES-Modified instrument. The TPAS (10 items, α=0.795), VAIS (six items, α=0.893), and MCS (six items, α=0.904) subscales had robust reliability measures while the TWER subscale demonstrated moderate reliability (three items, α=0.598). O'Brien et al. (1997) also found the TWER subscale to have moderate reliability and attributed that to the small number of items that made up that subscale.

Data Analyses

The demographic questions were analyzed via descriptive statistics in SPSS. Some questions were collected as continuous data but coded into categorical data to report in the demographic table (e.g., years working in a career counseling role). The continuous data was used for the correlational analyses. Responses for the self-efficacy items were summed according to subscale for each participant. To compare subscale responses between the career coaches and school counselors, independent samples t-tests were conducted. For each independent samples t-test the Levene's test results were found to be insignificant, indicating homogeneity of variance between the two groups. This suggested that the independent samples t-tests were appropriate for examining differences between these two independent groups (career coaches and the school counselors) (Sheskin, 2011). The critical *p*-value for all independent samples t-tests was set to 0.05.

Exploratory correlational analyses were then conducted to determine if there was a significant association between participants' prior experiences or demographic characteristics and their career counseling self-efficacy subscale levels. Different types of correlational analyses were according to the nature of the data. For analyses examining the association between two items with continuous data (e.g., years working in a career counseling role and self-efficacy level), Pearson's correlation tests were conducted. If the data included a dichotomous independent variable (e.g., has work experience in business or industry [yes or no]) and a

continuous dependent variable (ex. self-efficacy level), point-biserial correlation analyses were performed. Lastly, if the variables consisted of an independent ordinal variable (e.g., percentage of work week involving career counseling activities) and a dependent continuous variable (ex. self-efficacy level), Kendall's tau-b correlation tests were used (Khamis, 2008; Maher et al., 2013). The critical *p*-value was set at 0.05 for all correlational analyses conducted.

Findings

Participant Demographics

Seventy-two participants from nine county school systems in Maryland voluntary participated in this study. Ten participants worked in school systems located in the western Maryland region, 47 worked in the central Maryland region, four worked in the southern Maryland region, and 11 worked in the eastern shore region. The mean age among participants was 41 years old with 68% of participants between the ages of 22 and 45. Eight (11%) individuals identified as male, 63 (89%) participants identified as female, and one (1%) participant elected not to report their gender. Among the participants, 54 (75%) identified as White, 12 (17%) identified as Black, three (4%) as two or more ethnicities, two (3%) identified as Hispanic/Latinx, and one (1%) identified as Asian. Regarding the position that participants held while being tasked with providing career coaching for students in their school system, 31 (43%) were employed as career coaches, four (6%) were administrators who oversaw career coaches, and 37 (51%) were school counselors. For the analyses in this study, the administrators who oversaw career coaches were grouped with the career coaches, resulting in a total career coach sample size of 35 (49%).

RQ1: Background and Preparation Experiences

Given the noticeable differences in career coaching job titles, hiring requirements, and job descriptions among school systems, the first research question was developed to examine the background and preparation experiences of individuals providing career coaching in Maryland. Descriptive statistics revealed that, in comparison to school counselors, a greater percentage of career coaches had an associate or bachelor's degree in a business or industry related field (19%). Career coaches also had a higher percentage of participants with an undergraduate (47%) or graduate degree (34%) in a non-CTE related education field. More career coaches (28%) reported having prior experiences working in business or industry compared to school counselors (14%). All 37 school counselors earned a master's degree in school counseling compared to 22 percent of the career coaches. However, over half (54%) of the career coaches reported earning the Global Career Development Facilitator (GCDF) certification or Certified Student Career Coach (CSCC) credential. Twenty-nine percent of career coaches and 11 percent of school counselors earned the WBL coordinator endorsement from the Maryland State Department of Education (MSDE). Moreover, nine career coaches had completed the WBL and career counseling certificate program through the University of Maryland Eastern Shore (UMES).

More career coaches (54%) had teaching licensure in comparison to school counselors (13%); however, only 13 percent of career coaches had teaching licensure in a CTE area. In regard to career counseling PD experiences, workshops, and courses, 74% of career coaches had completed a week or more of training compared to only 41% of school counselors. Additionally, a higher percentage of career coaches (29%) reported completing multiple courses or multiple semesters of coursework/training focused on career counseling. School counselors were slightly more experienced with 46% and 29% of school counselors and career coaches respectively

reporting 6-15 years of experience working in a career coaching and/or career counseling role (Table 2).

Table 2

Education and Preparation Experiences

Experience	Career Coaches n (%)	School Counselors n (%)	Full Sample n (%)
Degree*			
AA degree in business or industry related field	1 (3)	0 (0)	1 (1)
Bachelor's degree in business or industry related field	5 (16)	2 (5)	7 (10)
Bachelor's degree in CTE	0 (0)	1 (3)	1 (1)
Bachelor's degree in education field (non-CTE)	15 (47)	5 (14)	20 (28)
Master's degree in school counseling	7 (22)	37 (100)	44 (61)
Master's degree in CTE	1 (3)	0 (0)	1 (1)
Master's degree in education field (non-CTE)	11 (34)	0 (0)	11 (15)
Prior work experience			
Working in business or industry	9 (28)	5 (14)	14 (19)
Licensures and credentials*			
GCDF	11 (31)	1 (3)	12 (17)
CSCC	8 (23)	0 (0)	8 (11)
WBL endorsement[#]	10 (29)	4 (11)	14 (19)
WBL & CC certificate from UMES	9 (26)	0 (0)	9 (13)
Teaching licensure in a CTE area	4 (13)	2 (5)	6 (8)
Teaching licensure in a non-CTE area	13 (41)	3 (8)	16 (22)
Amount of career counseling PD, workshops, or courses			
None	7 (20)	6 (16)	13 (18)
A half-day	0 (0)	3 (8)	3 (4)
One day	1 (3)	5 (14)	6 (8)
1-3 days	1 (3)	8 (22)	9 (13)
1 week	2 (6)	1 (3)	3 (4)
Multiple weeks	12 (34)	3 (8)	15 (21)
One semester	2 (6)	6 (16)	8 (11)
Multiple courses/semesters	10 (29)	5 (14)	15 (21)

Years working in a career coaching/career counseling role			
0	2 (6)	3 (8)	5 (7)
1-5	23 (66)	17 (46)	40 (56)
6-15	6 (17)	12 (32)	18 (25)
16+	4 (11)	5 (14)	9 (13)

Note. Note. Full sample n = 72; school counselors n = 37; career coaches n = 35 ; * = Participants were able to report multiple degrees, licensures, and credentials.

In addition to education and preparation experiences, collaborative career coaching and/or counseling efforts were examined. Eighty-nine percent of the career coaches spent over half of their work week engaged in career coaching and/or counseling activities. Conversely, only 14% of the school counselors spent a similar amount of providing career counseling. The majority of participants (68%) collaborated with their school counseling office or another school counselor for 1-5 hours per week. When asked how confident they were in their career counseling skills on a 5-point Likert scale, a higher percentage of career coaches (77%) reported feeling generally confident or highly confident in comparison to school counselors (32%) (Table 3).

Table 3

Participants' Collaborative Efforts and Perceived Confidence in Career Counseling

Activity	Career Coaches n (%)	School Counselor n (%)	Full Sample n (%)
Percentage of work week that involved career coaching/counseling activities			
0-25%	3 (9)	25 (68)	28 (39)
26-50%	1 (3)	7 (19)	8 (11)
51-75%	9 (26)	5 (14)	14 (19)
75-100%	22 (63)	0 (0)	22 (31)
Hours spent collaborating with their school counseling office each week			
0	2 (6)	4 (11)	6 (8)
1-5	23 (66)	26 (70)	49 (68)
6-10	6 (17)	2 (5)	8 (11)
11-20	3 (9)	0 (0)	3 (4)
21-30	0 (0)	1 (3)	1 (1)
31-40+	1 (3)	4 (11)	5 (7)

Confidence in career counseling skills			
Not confident	0 (0)	0 (0)	0 (0)
Slightly confident	1 (3)	5 (14)	6 (8)
Moderately confident	7 (20)	20 (54)	27 (38)
Generally confident	22 (63)	7 (19)	29 (40)
Highly confident	5 (14)	5 (14)	10 (14)

Note. Full sample n = 72; school counselors n = 37; career coaches n = 35.

RQ2: Career Counseling Self-Efficacy

The second research question measured participants' career counseling self-efficacy and examined if there were significant differences between the self-efficacy of career coaches and school counselors. Independent samples t-tests revealed that the career coaches reported greater VAIS ($p = 0.007$) and TWER ($p = 0.<0.001$) self-efficacy levels with medium and large effect sizes respectively (Ferguson, 2009). Despite no significant differences in TPS, MCS, and CAD self-efficacy, career coaches also reported a higher mean self-efficacy on each of these subscales (Table 4).

Table 4

Independent sample t-tests examining participants' self-efficacy

Subscale	M	n	SD	t	*p*	d
TPS						
CC	42.91	35	4.604	1.123	0.265	0.265
SC	41.68	37	4.750			
VAIS						
CC	24.77	35	3.926	2.801	0.007*	0.660
SC	21.97	37	4.512			
MCS						
CC	21.54	35	4.321	0.588	0.558	0.139
SC	20.86	37	5.371			
TWER						
CC	11.17	35	1.902	3.526	<0.001*	0.831
SC	9.41	37	2.315			
CAD						
CC	29.31	35	4.178	1.749	0.085	0.412
SC	27.65	37	3.903			

Note. * = $p < 0.05$; CC = career coaches; SC = school counselors.

RQ3: Associations Between Career Counseling Self-Efficacy and Background Experiences

After examining participants' educational experiences, preparation experiences, and self-efficacy levels, exploratory correlational analyses were independently conducted to determine if there were specific background experiences that were significantly associated with higher (positive correlation) or lower (negative correlation) self-efficacy levels. The first set of analyses consisted of point-biserial correlation tests given the continuous (self-efficacy rating) and

dichotomous (educational and preparation experiences) nature of the variables. Prior work experience in business or industry was not found to have a statistically significant association with any self-efficacy subscales at the $p < 0.05$ level. There was a marginally significant association ($p < 0.10$; Olsson-Collentine et al., 2019) between business or industry work experience and participants' TWER self-efficacy.

In regard to participants who had an associate or bachelor's degree in a business or industry related field, this variable was found to be significantly correlated with school counselors' self-efficacy levels on all five subscales. Each of these correlations had medium effect sizes (Cohen, 1988). For career coaches, only the CAD subscale was found to be significantly correlated with an associate or bachelor's degree in a business or industry related field. Moreover, there was a significant association between CTE licensure and career coaches' VAIS self-efficacy levels. CTE licensure and TWER self-efficacy were also found to have a marginally significant association among the full sample. All of the associations mentioned above had a positive correlation, indicating that higher self-efficacy subscale levels (dependent variables) were associated with a "yes" responses to the dichotomous independent variables (e.g., had an undergraduate degree in a business or industry field [yes or no]) (Table 5).

When examining different career coaching related credentials, there was no significant association found between any of the subscales and the completion of either the GCDF or CSCC credential. While not statistically significant, VAIS self-efficacy levels among participants who had the GCDF credential were found to be approaching significance ($p < 0.10$). Conversely, career coaches who had completed the WBL and career counseling certificate program from UMES reported significantly higher self-efficacy scores associated with four of the five self-efficacy subscales. The VAIS ($r_{pb} = 0.440$), MCS ($r_{pb} = 0.447$) and TWER ($r_{pb} = 0.469$) subscales were found to have medium effect sizes (Cohen, 1988) (Table 5).

Table 5

Point-biserial correlation analyses between participants' self-efficacy and experiences/credentials

Experience/Credential	TPS		VAIS		MCS		TWER		CAD	
	r_{pb}	p	r_{pb}	p	r_{pb}	p	r_{pb}	p	r_{pb}	p
Work Experience in Business or Industry										
CC	0.038		0.266		0.184		0.252		0.170	
SC	0.145		-0.229		0.085		0.103		0.077	
Full sample	0.110		0.073		0.138		0.222	~	0.156	
Undergraduate degree in business or industry										
CC	0.254		0.253		0.148		0.224		0.374	*
SC	0.425	**	0.351	*	0.412	*	0.429	**	0.363	*
Full sample	0.328	**	0.325	**	0.259	*	0.347	**	0.384	**

CTE Teaching Licensure									
CC	0.099	0.388	*	0.223		0.285		0.264	
SC	0.068	0.109		-0.062		0.115		0.053	
Full sample	0.097	0.271	*	0.084		0.221	~	0.191	
GCDF									
CC	0.026	0.135		-0.057		0.069		-0.037	
SC	0.154	0.113		0.162		0.043		0.232	
Full sample	0.101	0.220	~	0.036		0.194		0.105	
CSCC									
CC	-0.020	-0.179		-0.037		-0.086		-0.141	
SC	-	-		-		-		-	
Full sample	0.036	0.013		0.004		0.095		-0.018	
UMES WBL & CC certificate									
CC	0.112	0.440	**	0.447	**	0.469	**	0.384	*
SC	-	-		-		-		-	
Full sample	0.122	0.372	**	0.280	*	0.400	**	0.329	**

Note. ** = $p < 0.01$; * = $p < 0.05$; ~ = $p < 0.10$; CC = career counselors (n = 35); SC = school counselors (n = 37); CTE = Career and Technical Education; GCDF = Global Career Development Facilitator certification; CCSC = Certified Student Career Coach; UMES = University of Maryland Eastern Shore; WBL & CC = work-based learning and career counseling.

Pearson's correlation tests were then conducted to examine the associations between two continuous variables. Number of hours spent per week collaborating with their school counseling office or with other school counselors was found to be statistically significant with a small effect size for the TPS, MCS, and TWER subscales among the full sample. There was a significant association with a medium effect size (r = 0.377; Cohen, 1988) between school counselors' TPS self-efficacy levels and weekly hours spent collaborating with their school counseling office or another school counselor. Each group had marginally significant associations ($p < 0.10$; Olsson-Collentine et al., 2019) between the TPS subscale and collaborative hours with the school counseling office. In regard to years involved with career coaching work, this variable was significantly associated with career coaches' TPS self-efficacy. Furthermore, years providing CTE or WBL instruction had a significant association with a medium effect size on career coaches' TWER self-efficacy. There was marginal significance between years of CTE/WBL teaching experience and career coaches' VAIS and MCS self-efficacy. These correlational tests indicate that self-efficacy in the aforementioned subscales significantly increased as years of CTE/WBL teaching experience increased (Table 6).

Table 6

Pearson's correlation analyses between participants' self-efficacy and experiences/activities

Experience/Activity	TPS		VAIS		MCS		TWER		CAD	
	r	*p*	r	*p*	r	*p*	r	*p*	r	*p*
Weekly hours collaborating with SC office										
CC	0.289	~	0.196		0.264		0.129		0.184	
SC	0.313	~	0.092		0.233		0.377	*	0.240	
Full sample	0.282	*	0.091		0.234	*	0.238	*	0.189	
Years doing CC work										
CC	0.339	*	0.093		-0.067		-0.111		0.161	
SC	0.230		0.075		-0.138		-0.123		0.249	
Full sample	0.257	*	0.034		-0.116		-0.161		0.171	
Years teaching CTE or WBL										
CC	0.015		0.293	~	0.294	~	0.337	*	0.076	
SC	-0.072		0.116		-0.215		-0.065		0.093	
Full sample	-0.002		0.240	*	0.049		0.184		0.112	

Note. ** = $p < 0.01$; * = $p < 0.05$; ~ = $p < 0.10$; CC = career counselors (n = 35); SC = school counselors (n = 37); GCDF = Global Career Development Facilitator certification; CCSC = Certified Student Career Coach; CTE = Career and Technical Education, WBL = work-based learning.

Lastly, Kendall's tau-b correlation analyses were conducted to investigate the associations between continuous and ordinal variables. As the amount of career counseling PD, workshops, and training increased, participants' TPS and TWER self-efficacy levels increased significantly. Additionally, the association with participants' VAIS self-efficacy was marginally significant ($p < 0.10$; Olsson-Collentine et al., 2019). When examining the amount of PD, workshops, and training completed by school counselors, there was a significant association with the TWER subscale which had a medium effect size ($\tau_b = 0.309$; Cohen, 1988). The TPS and CAD self-efficacy levels reported by school counselors had a marginally significant association with amount of PD, workshops, and training. In respect to career coaches and amount of PD, workshops, and training, only their TPS self-efficacy levels were found to be marginally significant.

The final independent variable measured the percentage of participants' work week that they reported being involved with career coaching and/or career counseling activities. This variable was found to be significantly associated with participants' VAIS and TWER self-efficacy levels. The correlation with the TWER subscale had a medium effect size ($\tau_b = 0.302$) and the VAIS subscale correlation had a small effect size ($\tau_b = 0.302$; Cohen, 1988) (Table 7).

Table 7

Kendall's tau-b correlation analyses between participants' self-efficacy and experiences/activities

Experience/Activity	TPS		VAIS		MCS		TWER		CAD	
	τ_b	*p*	τ_b	*p*	τ_b	*p*	τ_b	*p*	τ_b	*p*
Amount of career counseling PD, Workshops, Courses										
CC	0.221	~	0.150		0.063		0.188		0.026	
SC	0.204	~	0.131		0.123		0.309	*	0.211	~
Full sample	0.195	*	0.173	~	0.114		0.296	**	0.131	
Percentage of work week involved with career coaching/ counseling activities										
CC	0.030		0.164		0.198		0.114		-0.030	
SC	0.222		-0.096		0.116		0.147		0.165	
Full sample	0.149		0.220	*	0.104		0.302	**	0.131	

Note. ** = $p < 0.01$; * = $p < 0.05$; ~ = $p < 0.10$; CC = career counselors (n = 35); SC = school counselors (n = 37); PD = professional development.

Discussion

The findings are discussed below according to each research question.

Education and Preparation Experiences

There are a few notable findings that emerged from examining the demographics and background experiences of the participants who were providing career coaching in the state of Maryland. One positive finding is that 68% of the participants in this study were between the ages of 22 and 45. This indicates that with sufficient training and retention efforts, school systems could have experienced career coaches in place for the next decade or longer. The demographic findings also revealed there was a low percentage of male and underrepresented minority career coaches among the sample. It is important to recruit and hire a diverse pool of career coaches reflective of the student population since these individuals serve as role models who have an influence on students' career and post-secondary decisions (Quimby & DeSantis, 2006).

In regard to employment and educational experiences, the data suggests individuals from a variety of backgrounds are being hired as career coaches. A higher percentage of career coaches had prior work experience in business and/or industry which can help develop detailed knowledge about different career clusters, relevant skills employers value among those entering the workforce, and additional training opportunities. One other noticeable finding is that over 40% of the career coaches had a bachelor's degree in an education field not related to CTE or teaching licensure in a non-CTE teaching area. While it would seem logical to recruit CTE teachers who have experience aligning curriculum to meet industry standards and preparing career and post-secondary ready students, there is also a critical shortage of highly qualified CTE

educators. School systems may feel like calling on the expertise of a CTE teacher to provide career coaching creates another difficult gap to fill; therefore, this may indicate more school systems are opting to leave experienced CTE teachers in their current role and train new employees to serve as career coaches.

It is not surprising that every school counselor in this study had a master's degree in school counseling as it is required to be a school counselor in Maryland. Given that school counselor preparation programs often have at least one course specifically focused on career counseling, it is understandable why school systems would look to these professionals to provide career coaching and/or counseling. However, school counselors in the state have raised concerns about the many other responsibilities they are tasked with, requiring additional support since it is challenging to schedule individualized career coaching sessions. This is where collaborative efforts between school counseling offices and trained career coaches have been proposed to support each other's work and expertise.

Career Coaching Credentials and Certificates

The various credentials that career coaches and school counselors earned further illustrates the differences in desired training and credentials among school systems in the state.

Global Career Development Facilitator (GCDF). The most popular credential earned among career coaches was the GCDF. This 120-hour credential is offered by the Center for Credentialing and Education and trains individuals to "help people, both individually and in a group setting, make informed decisions when considering their own career development. Through the use of best practices, various assessment tools, and career development models, GCDFs equip each individual with the knowledge and skills to embark on their professional journey" (CCE, 2025). Only six states recognize the GCDF for professional career advancement or employment, Maryland being one of them. When the Blueprint was released with the requirement of career coaching for all secondary students, a number of school systems quickly gravitated toward requiring this credential since it was offered online, could be completed in 120 hours, and had a relatively low cost in comparison to other trainings or university tuition. Some career coaches in the state who completed this credential have expressed concerns about the lack of focus this program places specifically on career coaching practices within a K-12 context.

Certified Student Career Coach (CSCC). CSCC was another credential that about a quarter of the career coaches had completed but was not completed by any school counselors in this study. The CSCC credential is offered by the Professional Association of Résumé Writers and Career Coaches (PARWCC). The CSCC is offered in a live online or self-study format that consists of four modules and takes roughly four weeks to complete. The modules focus on providing a holistic training experience that cover vocational theories, coaching strategies to help students navigate career choices and overcome barriers to success, and utilizing digital tools for student career development (PARWCC, 2025).

Work-Based Learning and Career Counseling Certificate. The most common credential among the full sample was the WBL Coordinator endorsement. This is an endorsement that can be added to an existing Maryland teaching license. Code of Maryland (COMAR) regulations specify that to earn this endorsement educators need to complete higher education coursework or continuing professional development experiences that focus on: (a) organizing, coordinating, and marketing of WBL programs, (b) instructional management and curriculum development for WBL programs, and (c) contemporary workplace practices that include visits to business and industry settings to learn about all aspects of the industry. Business or industry

work experience within the past 10 years can be substituted for the visits to businesses and industries.

Following the release of the Blueprint and seeing the need for a program that could help prepare career coaches and specifically address the goals of the Blueprint, the University of Maryland Eastern Shore worked with local school system CTE directors, school counselors, a school counseling professor, alumni, and other stakeholders to develop the WBL and career counseling certificate. This certificate program was officially approved by the Maryland Higher Education Commission (MHEC) and the University System of Maryland (USM) in the spring of 2024. It is offered at both the undergraduate (Upper Division Certificate) and graduate (Post-Baccalaureate Certificate) levels for a range of professionals. This unique program consists of the three aforementioned courses that count toward the WBL coordinator endorsement from MSDE, and it requires a fourth course specifically focused on analyzing career counseling theories and refining one's career counseling skills for implementation with K-12 students (UMES, 2024). This program is offered in a synchronous online format to bring together cohorts of career coaches, school counselors, and educators from across the state to facilitate important dialogue about the Blueprint, develop and share resources, and discuss successes and challenges that different school systems across the state are experiencing. The four courses can be completed in approximately one year. The nine career coaches in this study who completed the WBL and career counseling certificate represent the first cohort to finish the program. The WBL courses in the program are taught by adjuncts who are experienced WBL coordinators in local school systems, and the career counseling course is taught by a school counselor who has worked at a school system CTE center for 10 years and is involved with the state's professional school counselors association.

Training and Career Coaching Experience

Career coaches reported completing more PD, workshops, or courses in career counseling compared to school counselors. This could be from school systems hiring employees to fill the new career coaching positions and recognizing the need for immediate training in these new roles. School counselors on the other hand had a higher percentage of participants who completed one semester of career counseling coursework which aligns with their school counselor preparation program requirements. Given that school counselors already had some training on career counseling and were already employed with a wide range of responsibilities, school systems may have overlooked the need to provide more training on career counseling for these individuals. The focus on providing PD, workshops, or courses to get employees trained to address the goals of Blueprint appears to have been focused heavily on those hired specifically for career coaching roles as opposed to those tasked with school counseling responsibilities. This could also explain why a higher percentage of career coaches reported feeling generally confident or highly confident in their career coaching skills.

When examining years of experience that participants had with providing career coaching and/or counseling for students, the school counselors reported having more years of experience than the career coaches. Seventy-two percent of the career coaches were within their first five years of doing career coaching related work. This lack of experience reinforces why school systems may have focused heavily on getting these individuals more PD and training to better prepare them for their new roles. The lack of experience also represents the opportunity for school systems to mold career coaches' knowledge and practices in alignment with their views on career coaching since they may not have a lot of prior exposure to the field. Career coaches

also reported spending more of their work week involved with career coaching and/or counseling activities. This reflects the way school systems are utilizing these individuals to focus on addressing the career coaching mandate from the Blueprint while needing their school counselors to address a myriad of other needs. A slightly lower percentage of career coaches reported collaborating with the school counseling office for 10 hours or more a week. While this type of collaboration would be expected of school counselors who work in the same department as other school counselors, the low amount of weekly collaboration among career coaches and school counselors raises questions about why there is not more collaboration? This could be the result of career coaches floating between school buildings, tension between school counselors and career coaches over who should be providing career coaching and/or counseling, and other factors. Given the various personal factors that can contribute to a student's career and post-secondary decisions (Quimby & DeSantis, 2006), collaborating with the school counseling office to better serve the holistic needs of each student could be beneficial.

Career Counseling Efficacy and Correlated Experiences

Research question two revealed that career coaches had significantly ($p < 0.05$) higher self-efficacy levels in the VAIS and TWER subscales. This related to their ability to select appropriate instruments and explain the results to students (VIAS subscale), and their knowledge of current trends in the world of work (TWER subscale). From the descriptive statistics in RQ1 and the independent samples t-tests in RQ2, it was hypothesized that recent experiences working in business/industry and increased PD/training/courses on career coaching resources (e.g., instruments) may have contributed to these significant differences. RQ3 helped to investigate these hypothesized associations. To examine these results from a different lens, Table 8 presents the significantly associated variables organized according to the self-efficacy subscales.

Table 8

Summary of Significantly Associated Variables

Subscale	Significantly Associated Variables for Career Coaches	Significantly Associated Variables for School Counselors
TPS	• Years doing career coaching and/or career counseling work	• Undergrad degree in business or industry
VAIS	• CTE teaching licensure • UMES WBL & CC certificate	• Undergrad degree in business or industry
MCS	• UMES WBL & CC certificate	• Undergrad degree in business or industry
TWER	• UMES WBL & CC certificate • Years teaching CTE or WBL	• Undergrad degree in business or industry • Weekly hours collaborating with school counseling office • Amount of PD, workshops, courses
CAD	• Undergrad degree in business or industry • UMES WBL & CC certificate	• Undergrad degree in business or industry

Note. $p < 0.05$; CC = career counseling.

Therapeutic Process and Alliance Skills (TPAS)

When viewing Table 8, years involved with career coaching and/or counseling work was significantly associated with TPAS (one's ability to develop a therapeutic relationship and provide support). This indicates that as career coaches had more experience providing career coaching and/or counseling and working with people in this role, their efficacy related to identifying barriers and other therapeutic process and alliance skills improved. This is an important skill for working with students in K-12 settings. Given the lack of career coaching and/or counseling experience reported by the career coaches, it could be expected that with more experience in their career coaching role their self-efficacy towards TPAS will improve. For school counselors, experience was not a significant factor. This may be due to the fact that they receive career counseling training in their school counseling preparation program and often utilize therapeutic process and alliance skills each week for other school counseling responsibilities. Having an associate or bachelor's degree in a business or industry related field was a significantly associated variable for school counselors. This knowledge of and experience with business and industry preparation could have helped school counselors to better connect with and support students in their career and post-secondary readiness decisions. These educational experiences, coupled with their school counseling preparation, could help develop therapeutic relationships with a business and industry preparation focus.

Vocational Assessment and Interpretation Skills (VAIS)

CTE teaching licensure may have significantly contributed to career coaches' self-efficacy in their VAIS due to the technical assessment skills educators need to teach CTE. This includes developing, analyzing, and implementing technical instruments. This may have some overlap with aspects of vocational assessment and interpretation skills. UMES's WBL and career counseling certificate program was also significantly associated with career coaches' VAIS self-efficacy. The certificate program includes courses on curriculum and assessment which teaches students how to develop assessments for WBL, how to implement instruments and interpret results for WBL programmatic evaluations, and how to select and analyze results from different career counseling instruments available in the literature. These experiences help to enhance career coaches' VAIS and be better prepared to work with K-12 students. Having an associate or bachelor's degree in a business or industry related field was again a significantly associated variable for school counselors. This could suggest that their business and industry related preparation experiences, along with their school counseling preparation program, help in selecting appropriate instruments (e.g., technical and/or other instruments) and explaining individualized results related to a student's interests, values, and personality.

Multicultural Competency Skills (MCS)

The MCS subscale measured participants' confidence in understanding issues related to ethnicity, gender, and sexual orientation in both the workplace and career decision making. Completion of the WBL and career counseling certificate from UMES was significantly associated with this subscale for career coaches. The certificate program's curriculum and instruction course covers developing and delivering differentiated instruction to meet students' needs. Also within that certificate program, the course on coordinating WBL programs goes into detail about legal issues and fostering a safe WBL experience for all students out in the community. Furthermore, the career counseling course examines literature, case studies, and strategies focused on cultural considerations for career counseling. Over multiple semesters

students in UMES's WBL and career counseling certificate program learn about multicultural career counseling topics and how to apply MCS. School counselors' MCS self-efficacy was significantly correlated with having an associate or bachelor's degree in a business or industry related field. Their preparation for business or industry could help them apply their MCS from their school counseling preparation program in a unique career and post-secondary readiness context that increases their self-efficacy in this area.

Current Trends in the World of Work, Ethics, and Career Research (TWER)

Keeping up with current research findings, ethical and legal issues, and job market trends is a challenge for any career coach or school counselor with the various responsibilities they have and the rapid rate at which technologies and career fields evolve. The UMES WBL and career counseling certificate engages students in finding and analyzing emerging research, and involves coursework that specifically focuses on state and federal legal issues related to WBL. Additionally, in the career counseling course students learn about different tools and databases to research local, state, and federal job market trends. There is also a course in the certificate program in which students are taken to local businesses and industries from various career clusters to learn about emerging skills and employment trends from prospective employers. These experiences help career coaches to enhance their awareness and self-efficacy related to TWER. Years of CTE or WBL teaching experience also contributed to career coaches' TWER self-efficacy. These roles often require teachers to collaborate with local businesses and industries through advisory boards and other methods to ensure students are developing the competencies that employers value.

School counselors' TWER self-efficacy was found to have a significant correlation with their associate or bachelor's degree in a business or industry related field. Their degree program can help to develop an identity associated with the field and others in that field. This identity can stay with them and prompt interest in staying connected with the research and career trends in the field even after they transition into a school counselor role. Additionally, the number of hours collaborating with other school counselors and the amount of PD, training, or coursework they completed on career counseling was also found be significantly correlated. This demonstrates the importance of training updates and collaboration. Unlike career coaches, school counselors often do not have time built into their schedule to visit students in local WBL settings. As school counselors learn about new research, issues, and trends it is of value to share that with others involved in career counseling to continually grow. Opportunities to attend PD, training, and coursework on these topics is also critical, especially collaborative opportunities involving career coaches, school counselors, business and industry partners, and others.

Career and Academic Development (CAD)

The last subscale measured participants' self-efficacy related to the career domain within the comprehensive nature of a school counseling program. The 15-week career counseling for career and post-secondary readiness course that is part of UMES's WBL and career counseling certificate program was developed to extend beyond what one may learn in a career counseling course that is part of a school counselor preparation program. It was specifically designed to explore core career counseling theories and practices through the lens of the Blueprint, CTE career clusters, WBL, apprenticeships, and emerging career and post-secondary readiness trends. This unique and intentional course focus demonstrates the importance of well-planned instruction to enhance career coaches' CAD self-efficacy. Moreover, students develop

specialized content knowledge and skills during an associate or bachelor's degree program in a business or industry related field. This may have contributed to the participants' CAD self-efficacy which was found to be significantly correlated for each group.

In the correlational analyses (Tables 5-7), results that were marginally significant ($p < 0.10$) were presented. These were not reviewed in the discussion section because they were not statistically significant at the $p < 0.05$ threshold; however, there is still value in reporting marginally significant results when conducting exploratory correlation studies (Love, 2024; Olsson-Collentine et al., 2019). These results, while not statistically significant, were approaching statistical significance and should be considered in future career counseling studies.

Limitations

While this study included participants from nine school systems and all four regions of Maryland, the results are not generalizable beyond the sample. The results also represent self-reported data. Although the survey was voluntary, it is unknown if those who participated were more motivation to share their experiences than those who choose not to participate. Approval and support from additional school systems and workforce development boards in the state could help recruit a larger sample of career coaches and/or counselors to participate in future studies. Despite the benefits of measuring self-efficacy that are described in the literature, there are limitations regarding one's self-efficacy and translation into practice. While this study documented differences in participants' self-efficacy levels, it did not examine how participants applied these skills in their weekly career coaching and/or counseling duties. Moreover, when examining the correlational analyses in this study, caution should be taken not to infer causation. These analyses merely highlight associations that existed between variables, suggesting that stronger career counseling self-efficacy could be expected from those with the characteristics or experiences found to be significantly correlated. Neither researcher was involved with teaching/delivering any of the courses, PD, or trainings reported by the participants.

Conclusions

Approval of House Bill 1300 (the Blueprint for Maryland's Future) prompted school systems to make substantial changes within a short span of time – including re-envisioning their investment in career and post-secondary readiness through access to career coaching for every middle and high school student. This required school systems to quickly recruit, hire, and train personnel who could provide individualized career coaching. The findings from this study revealed that school systems have tasked a broad array of professionals, educators, and school counselors with providing career coaching experiences to help meet the goals of the Blueprint. Noticeable differences in how each school system was approaching the career coaching mandate led to many questions about who was providing individualized career coaching experiences for students; however, there was a lack of data to examine these questions in greater depth. Hence, this study provides much needed data for school systems and other stakeholders to reflect on their recruitment efforts (e.g., recruiting individuals with preferred characteristics and background experiences), hiring requirements, and the types of training/PD/coursework they are providing and/or requiring of secondary level career coaches.

While some previous studies found that participants with teaching experience had significantly stronger career counseling self-efficacy (Bodenhorn & Skaggs, 2005; Sanders et al., 2017), in this study teaching experience was only found to be significantly associated with career coaches' self-efficacy toward current trends in the world of work, ethics, and career research.

Given the nature of career coaching and/or counseling, another interesting finding was that prior work experience in business or industry was not significantly associated with participants' career counseling self-efficacy; however, having an undergraduate degree in business or industry was a significant variable. Furthermore, the popular GCDF credential that many school systems quickly gravitated toward and still require career coaches to earn was not significantly associated with stronger career counseling self-efficacy. In contrast, career counseling PD/workshops/courses were found to be significantly correlated with some career counseling self-efficacy subscales.

One notable finding from this study was the significant association between the UMES WBL and career counseling certificate program, and career coaches' self-efficacy on all five subscales. These results are encouraging given that UMES's WBL and career counseling program was developed in collaboration with various stakeholders to prepare educators, career coaches, school counselors, and others to lead high-quality WBL and career counseling experiences in alignment with the Blueprint. This demonstrates the benefits of a higher education program that was developed in collaboration with key stakeholders to enhance career counseling self-efficacy within the context of career and post-secondary readiness. Moreover, the literature suggests that increasing one's career counseling self-efficacy has implications for improving their career counseling practices. This study provides an important snapshot of the background and preparation experiences of a sample of individuals tasked with providing career coaching in Maryland's public school systems. Future career coaching and career counseling studies should build upon this exploratory study and use it to inform subsequent research efforts.

Recommendations

The findings from this study led to numerous recommendations for future research and practice. Future studies should aim to increase participation with additional support from local school systems and workforce development boards. The reliable and valid career counseling self-efficacy instrument used in this study and by Sanders et al. (2017) can help provide valuable insight for school systems, workforce development boards, and others. As Bodenhorn (2001) pointed out, career counseling self-efficacy instruments can help to better focus career coaching and counseling course work, training, and PD efforts to address specific areas where low self-efficacy levels are reported. Additionally, Bodenhorn and Skaggs (2005) suggested career counseling self-efficacy needs to be corroborated with job performance evaluations. Further research is needed to examine the relationship between participants' career counseling self-efficacy subscale ratings and their implementation of career coaching/counseling practices with secondary students. Qualitative methods such as observations, content analyses, and interviews would help to collect more in-depth data. More detailed quantitative analyses should also be conducted in future studies to model career counseling self-efficacy levels while controlling for specific variables such as those found to be significant in this study and the literature.

With school systems having filled many of their career coaching positions, efforts should start to focus on how to retain these employees beyond the Blueprint which is funded until 2030. In this study, 68% of participants were at least ten or more years away from retirement age. A substantial amount of time and resources have been invested into training these career coaches, and given the critical shortage of CTE teachers and WBL coordinators, there are pathways (e.g., UMES's certificate programs) to help them earn alternative licensure or other credentials that are required for full-time employment as an educator or coordinator within a school system. The data suggests that school counselors may benefit from more career counseling PD or

updates/refresher trainings on career counseling to boost their self-efficacy in this area. Given that undergraduate degrees in a business or industry field were significantly associated with higher self-efficacy, alternative experiences that help career coaches learn important business and industry concepts within the constraints of their work schedule should be explored. School systems should seek increased support for their career coaches to engage in opportunities like visits/collaborations with local businesses and industries, summer paid externships in a local business or industry, and other similar initiatives. Career coaching and/or counseling PD and training experiences should be examined in greater depth to determine the effects of specific content or experiences, and this data should be used to inform the design of future PD or trainings. Furthermore, the findings suggest school systems may benefit from providing more collaborative planning and PD time between school counselors and career coaches. The characteristics and preparation experiences that were significantly associated with the self-efficacy subscales in this study can help to better focus career coaching recruitment and training initiatives led by local school systems, workforce development boards, the state department of education, and higher education institutions.

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