



# Self-Perceived Employability and Subjective Career Success: Graduates of a Workforce Education and Development Program

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**Abstract.** The purpose of this study is to investigate the perception of employability and success among workforce education and development (WED) graduates. A quantitative study was conducted through the administration of an online survey to graduates ( $N = 85$ ) of a WED program located within a midwestern, state university. The survey included demographic questions and a Likert-scale questionnaire consisting of 14 items from Rothwell and Arnold's self-perceived individual employability scales (2007). A principal components analysis was conducted to explore and confirm the related measures. Ordinary least squares regression was used to evaluate the relationship between the graduates' perceptions of their employability and career success and other demographic variables. The results of this study may be useful to public administrators, higher education institutions, WED faculty, human resource development professionals, students, and researchers.

**Keywords.** self-perceived employability; subjective career success; workforce education and development; graduates; higher education; human resource development

## Introduction

Although the U.S. unemployment rate dropped from 9.6% to 4.1% between 2010 and 2017 and there is much discussion about the economy presently reaching full-employment levels, reports show that only around 60% of working-age people have a job or are looking for one (Bureau of Labor Statistics, 2018b). Therefore, improving employability remains a public policy concern. One of the

missions of institutions of higher education is preparing people for careers (Englund, 2002; Larsen, 2002; Solbrekke & Karseth, 2006). To that end, workforce education and development (WED) programs focus on providing “adult basic education and literacy, employability skills, and career exploration” (Jacobs, 2006, p. 26). Adult learners could gain skills and knowledge for their career development through those programs.

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Since the enactment of the Carl D. Perkins Act of 1990, which introduced WED in the United States (Gregson, 1995), WED has influenced both adult education and human resource development (HRD; Jacobs, 2000, 2006). According to Akdere and Conceição (2009), WED was initially classified as a subcategory of career and technical education but came into its own when emphasis shifted to better preparing youths for entry into the workforce (Jacobs, 2006). The terms “workforce development” and “workforce education” are used to describe programs focused on vocational training, adult training, employment initiatives, and learning specifically for the workplace (Jacobs, 2006). Such programs offer four major areas of concentration: “education to enter or re-enter the workforce, improving workplace performance, responding to changes that affect workforce effectiveness, and life transitions related to workforce participation” (Jacobs, 2006, p. 24).

The undergraduate and graduate degree programs in the fields of WED, HRD, and adult education continue to proliferate in an effort to create work-ready graduates (Akdere & Conceição, 2009). However, while there are many studies on the perceived employability of college students (Chou & Shen, 2012; Onyishi, Enwereuzor, Ituma, & Omenma, 2015; Qenani, MacDougall, & Sexton, 2014), very few have examined the perspectives of WED-program alumni. To address this gap and hone strategies for employment-outcomes improvement, this study explores the perception of employability and career success held by WED-program graduates and investigates the relationship between demographic variables and perceptions of employability and career success. The demographic variables include age, highest WED-degree level, gender, grade point average (GPA), graduation year, work experience, employment status, and program type.

The study is guided by the following three research questions:

1. To what extent do WED graduates perceive their employability and opportunity for career success?
2. What is the relationship between WED graduates' self-perceived employability and their subjective career success?
3. How are demographic variables correlated with WED graduates' self-perceived employability and their subjective career success?

## Theoretical framework

Rothwell and Arnold's (2007) theoretical framework and scales were used to guide the study design and

measure variables as they have been used to perform exploratory validation among professionals. For example, Greer and Waight (2017) used perceived employability and subjective career success from Rothwell and Arnold's framework (2007) to assess the value to alumni of undergraduate HRD-degree programs. Rothwell and Arnold (2007) developed two dimensions in their main framework: internal versus external labor markets (i.e., internal versus external employability), and personal versus occupational attributes. They focused on the internal-external dichotomy because it had been developed theoretically in previous studies. Internal employability refers to the self-valuation and the perceived value of occupation in the current organization, whereas external employability refers to the self-valuation and the perceived value of occupation outside of the current organization (Rothwell & Arnold, 2007).

Rothwell and Arnold (2007) consider subjective career success to be in the same general area as employability but also conceptually distinct from it and, therefore, well-suited as a good test of discriminant validity, which is based on the notion that, if concepts diverge, their correlations will be low and will arise as separate variables in multidimensional analysis (De Vaus, 2002). Furthermore, Bloch and Bates (1995) argue that employability can be viewed as the route to future career success. While self-perceived employability reflects the capacity to obtain or maintain a job in the future, subjective career success reflects satisfaction with past achievements. Nevertheless, both variables refer to self-perceptions related to an individual's position in the labor market (Rothwell & Arnold, 2007). Therefore, Rothwell and Arnold (2007) concluded that self-perceived employability is associated with subjective career success.

Employability studies have spanned a range of fields: business and management, cognitive and social psychology, education, human resource management, and HRD (Álvarez-González, López-Miguens, & Caballero, 2017; Knight & Yorke, 2002; Van der Heijde & Van der Heijden, 2006). Such studies have drawn on the perceived employability of human capital theory and the social cognitive career theory (Chou & Shen, 2012; Kim, Kim, & Lee, 2015; Rothwell & Arnold, 2007; Rothwell, Herbert, & Rothwell, 2008), and they have investigated the factors contributing to perceived employability and subjective career success. While the literature offers varying definitions of perceived employability (Hogan, Chamorro-Premuzic, & Kaiser, 2013; Vanhercke, de Cuyper, Peeters, & de Witte, 2014),

there are very few validated scales for measurement (Rothwell et al., 2008; Rothwell & Arnold, 2007, Wittekind, Raeder, & Grote, 2009).

## Literature review

### Self-perceived employability

Scholars have studied and developed varying concepts of employability. For example, Yorke (2004) defines employability as “a set of achievements, skills, understandings[,] and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits [them], the workforce, the community[,] and the economy” (p. 410). Van der Heijde and Van der Heijden (2006) explain it as “permanently fulfilling, acquiring[,] or creating... work through the optimal use of competencies” (p. 453). Rothwell and Arnold (2007) describe the concept as “the ability to keep the job one has or to get the job one desires” (p. 25). Finally, Hogan and colleagues (2013) express the term’s meaning as the ability to “gain and maintain a job in formal organization” (p. 3). All of these concepts of employability are complex and multidimensional. Hugh-Jones, Sutherland, and Cross (2006) offer three different perspectives of employability: that of employers, that of students, and that of higher education institutions. In addition, Rothwell and Arnold (2007) also have distinguished internal and external dimensions of employability as the difference between personal and occupational attributes.

Perceived employability emphasizes “the perceived ability to attain sustainable employment appropriate to one’s qualification level” (Rothwell et al., 2008, p. 2). Vanhercke and colleagues (2014) articulate this as “the individual’s perception of his or her possibilities of obtaining and maintaining employment” (p. 594). Lo Presti and Pluviano (2016) go on to argue that individuals’ perceptions are more important than objective circumstances because accurate perceptions can result in adaptive attitudes and behaviors.

Employability encompasses adaptability to the labor market (Hillage & Pollard, 1998), capacity for learning (Bagshaw, 1996; Lane, Puri, Cleverly, Wylie, & Rajan, 2002), career management and job search skills (Rothwell & Arnold, 2007), and professional knowledge (Van der Heijden, 2002). Ismail (2017) adds that employability requires a “continuous learning orientation, interactive skills, problem solving skills, enterprising skills, goal-directed behavior, presenting and applying

information, analytical thinking and ethical and responsible behavior” (p. 8). Furthermore, Nazar and Van der Heijden (2012) note that employability is related to flexibility and mobility, meaning that individuals within a specific entity or sector might perceive fewer opportunities than those outside of the organization or sector. Baruch (2010) argues that individuals could improve employability by acquiring competencies valued in the labor market, participating in workplace-related training, becoming involved in a well-known project to gain experience and knowledge, and being employed by a reputable organization. In addition, organizations could enhance workers’ employability by providing educational opportunities, but in doing so they risk workers leaving due to improved employability (Baruch, 2010).

### Subjective career success

The literature also includes definitions of career success. For instance, Judge, Cable, Boudreau, and Bretz (1995) define career success as “positive psychological or work-related outcomes or achievements one has accumulated as a result of one’s work experience” (p. 486). Ng, Eby, Sorensen, and Feldman (2005) express the definition as “the accumulated positive work and psychological outcomes resulting from one’s work experiences” (p. 367). All of these concepts emphasize the attained career accomplishments through work experiences.

Previous studies have associated general career success with job satisfaction and motivational factors (Bexley, Arkoudis, & James, 2013; Machado-Taylor et al., 2016; Stupnisky, Weaver-Hightower, & Kartoshkina, 2015). For example, Stupnisky and colleagues (2015) utilized mixed methods to study 68 new faculty members and identified job satisfaction, general life satisfaction, self-rated health, and stress as indicators of subjective success. They found that professional balance had the greatest influence on perceived success, while expectations, collegiality, and location had greater effects on other success indicators, such as job satisfaction, health, and stress.

Scholarship has also differentiated career success contributors through the identification of objective and subjective dimensions (Abele & Spurk, 2009; Heslin, 2005; Heslin & Turban, 2016; Judge et al., 1995). Objective career success refers to observable career accomplishments, whereas subjective career success focuses on individuals’ perception of career attainment (Heslin, 2005; Ng et al., 2005). In previous studies, objective career success has been measured by salary, promotion rate, and positional level within an

organizational hierarchy (Abele & Spurk, 2009; Hirschi, Nagy, Baumeler, Johnston, & Spurk, 2018; Otto, Roe, Sobiraj, Baluku, & Garrido Vásquez, 2017). Subjective career success, however, can be measured through job satisfaction, work-life balance, and career fulfillment (McDonald & Hite, 2008; Ng et al., 2005). Hirschi and colleagues (2018) specifically identified two indicators to gauge subjective career success: career satisfaction and job satisfaction. According to Carlson (2013), subjective career success factors can positively influence the decision to attend college when salary expectations are lower than optimal.

Employability can serve as a proxy for career success, and several recent studies have found a positive correlation between employability and subjective career success (Bozionelos et al., 2016; Verbruggen, van Emmerik, van Gils, Meng, & de Grip, 2015). Using a decade-long, longitudinal data set of 335 Dutch university graduates, Verbruggen and colleagues (2015) found that constant underemployment negatively impacted subjective career success five years later. Similarly, a quantitative, questionnaire-based study of 207 information technology professionals working in small and medium-sized enterprises in three European countries indicated that employability was positively related to objective and subjective career success (Bozionelos et al., 2016).

### **Influences on perceived employability and career success**

Previous studies have explored the relationship between various demographic factors and the perceptions of employability and career success across different populations, contexts, and countries. However, the results of those studies were inconsistent, so it is still necessary to determine how perceptions of employability and career success are linked to demographic variables, including age, gender, education attainment, GPA, employment status, graduation year, and work experience.

*Age.* Kasler, Zysberg, and Harel (2017) conducted a study of 584 college seniors in Israel and found that age was not associated with perceived employability. A quantitative study of 480 UK and Australian business undergraduates also demonstrated a lack of correlation between age and perceived employability among Australian students but found a significant, positive association between age and perceived employability among UK students (Jackson & Wilton, 2017).

*Gender.* According to Greer and Waight (2017), U.S. HRD-program alumni were more confident about their

perceived employability than their subjective career success (i.e., the progress made so far in their careers), and no significant differences were found in either perceived employability or subjective career success based on gender. Jackson and Wilton (2017) also found no differences in perceived employability between males and females. However, Rothwell and Arnold (2007) found that females were more confident about their employability than were males in a study of 200 UK human resource professionals. In addition, Boye and Grönlund (2017) noted that women fell behind men on most indicators of labor-market success. In contrast, Vargas, Sánchez-Queija, Rothwell, and Parra (2018) found that, among Spanish students, males possessed higher self-perceived employability than females.

*GPA.* Greer and Waight (2017) suggested that there were no significant differences in either perceived employability or subjective career success based on individuals' GPAs. However, Thang and Wongsurawat (2016) studied 500 information technology graduates in Vietnam and found that individuals with better academic performance found jobs more quickly. In addition, using survey data from a sample of 220 college students in Taiwan, Huang (2015) determined that increasing academic performance could help people become more confident about their career success.

*Education-level attainment.* Rothwell and Arnold (2007) found that educational attainment level did not significantly influence perceived employability. In addition, Drange, Bernstrøm, and Mamelund (2018) demonstrated that educational level was positively related to basic and aspiring employability, as well as career advancement, among Norwegian employees.

*Graduation year and work experience.* Heslin and Turban (2016) define career success as "an emergent process is in line with the notion of a career as an evolving sequence of work experiences over time" (p. 155). According to Thang and Wongsurawat (2016), employability is influenced by the year of graduation due to economic variants of the given country, and people with more work experience are considered more employable. In addition, Qenani and colleagues (2014) and Jackson and Wilton (2017) found that work experience is positively related to perceived employability.

*Employment status.* According to Kirves, Kinnunen, and de Cuyper (2014), perceived mobility was positively related to perceived employability among permanent workers. Moreover, Jackson and Wilton (2017) indicated that employment status is related to perceived employability

because being employed enhances confidence. However, Nazar and Van der Heijden (2012) found that being employed could lead to less mobility and fewer opportunities in the external labor market.

## Methodology

The purpose of this study was to investigate the perception of employability and career success among WED graduates. To address the research questions, a quantitative study was conducted through the administration of an online survey to graduates of a WED program located within a midwestern, state university. The survey included demographic questions and a Likert-scale questionnaire consisting of 14 items from Rothwell and Arnold's self-perceived individual employability scales (2007). Participants were recruited in fall 2017 via an advertisement posted in a LinkedIn group for WED-program graduates and by sending e-mails through the university's alumni association.

## Instruments

The study utilized a subset of Rothwell and Arnold's (2007) original instrument. In that instrument, 16 items were used to measure self-perceived employability and eight items were used to measure subjective career success (Rothwell & Arnold, 2007). Rothwell and Arnold (2007) subsequently removed five self-perceived employability items to minimize overlap. In the same study, Rothwell and Arnold (2007) demonstrated high reliability and validity scores for the remaining items. The internal reliabilities (i.e., Cronbach's alphas) were .83 for self-perceived employability, .72 for internal employability, .79 for external employability, and .88 for career success (Rothwell & Arnold, 2007).

In this study, seven items of self-perceived employability and seven items of subjective career success were selected due to their relevance and applicability to the WED-graduate population. The items on self-perceived employability included two for internal employability and five for external employability. Each item was scored on a Likert scale: strongly disagree ( $SD = 1$ ), disagree ( $D = 2$ ), neutral ( $N = 3$ ), agree ( $A = 4$ ), and strongly agree ( $SA = 5$ ). Participants were also asked to complete demographic-information questions about their age, race, gender, GPA, highest completed degree, graduation year, work experience, employment status, and program type.

## Participants and sampling

As noted, the target population for this study was WED graduates from a Midwest-based, state university. Sample selection was conducted by identifying graduates who were members of the WED program's alumni group on LinkedIn and WED-program graduates who had joined in the university's alumni association—together constituting a convenience sample. Convenience sampling is used to identify and contact potential participants where researchers possess "limited resources available for sampling" (Gliner, Morgan, & Leech, 2011, p. 125). Eighty-seven individuals participated in this study; however, two participants skipped some questions; therefore, 85 participants' responses were utilized in data analysis. Participants' ages ranged from 28 to 74 ( $mean = 51.36$ ). Table 1 shows participants' demographic information.

## Data analysis

Descriptive analysis and inferential statistical data analysis were conducted based on the research questions. A principal components analysis (PCA) was also conducted to explore and confirm the related measures. PCA is concerned with "how a particular variable might contribute to that component" (Field, 2009, p. 638). Ordinary least squares (OLS) regression was used on the self-perceived individual employability and subjective career success scales to explore the relationship between the graduates' perceptions of their employability and career success and other demographic variables. OLS regression "usually produce[s] unbiased estimates for the regression coefficients themselves" (LaHuis, Hartman, Hakoyama, & Clark, 2014, p. 5) and applies to "data with correlated disturbances results in coefficient estimators that are unbiased but inefficient and standard errors that are biased" (Moulton, 1990, p. 334). In addition, Pearson correlation was conducted to examine the relationship between subjective employability and career success.

## Results

A PCA was conducted on the seven self-perceived employability items and the seven subjective career success items. The Kaiser-Meyer-Olkin (KMO) measure was performed to verify the sampling adequacy (Kaiser, 1970). For the self-perceived employability items, the KMO was .862, and all KMO values exceeded .795—well above the acceptable limit of .5 (Field, 2009). In addition, Bartlett's test of sphericity (i.e.,  $X^2(91) = 637.098, p < .001$ ) indicated that correlations between items were sufficiently

**Table 1.** Participant Demographic Information.

<b>Variables</b>	<b>N</b>	<b>%</b>
<i>Gender</i>		
Female	21	24.7
Male	64	75.3
<i>Race/Ethnicity</i>		
Asian	2	2.4
Black/African-American	14	16.5
Hispanic or Latino	4	4.7
White	63	74.1
Not indicated	2	2.4
<i>Highest Level Degree Received From the WED Program</i>		
Bachelor's degree	52	61.2
Master's degree	16	18.8
PhD	17	20.0
<i>Program Type</i>		
Off campus	58	68.2
On campus	27	31.8
<i>Graduation Year</i>		
Before 2012	71	83.5
In and after 2012	14	16.5
<i>GPA</i>		
4.0	24	28.2
3.5–3.9	47	55.3
3.0–3.4	13	15.3
2.0–2.4	1	1.2
<i>Employment Status While a Student in the WED Program</i>		
Unemployed	2	2.4
Part-time employment	14	16.5
Full-time employment	69	81.2
<i>Current Employment Status</i>		
Unemployed	7	8.2
Part-time employment	6	7.21
Full-time employment	72	84.7
<i>Duration of Experience Within the Profession</i>		
1–3 years	9	10.6
4–6 years	7	8.2
7–10 years	7	8.2
More than 10 years	62	72.9
<i>Total</i>	85	100

Table 2. Descriptive Statistics and Rotated Component Matrix.

Items	M	SD	Comp1	Comp2	Comp3
e_i1: Even if there was downsizing in this organization, I am confident that I would be retained. EA1	3.92	0.838		0.5376	
e_i2: Among the people who do the same job as me, I am well-respected in this organization. EA2	4.377	0.740		0.3888	
e_e1: If I needed to, I could easily get another job like mine in a similar organization. EB2	3.81	0.866	0.3805		
e_e2: I could easily get a similar job in almost any organization. EB3	3.55	0.958	0.4261		
e_e3: I could easily retrain to make myself more employable elsewhere. EB1	4.22	0.850	0.6016		
e_e4: Anyone with my level of skills and knowledge, and similar job and organizational experience, will be highly sought after by employers. EB4	3.96	0.698			
e_e5: I could get any job, anywhere, so long as my skills and experience were reasonably relevant. EB5	4.01	0.699	0.4489		
s1: I am in a position to do mostly work which I really like.	4.07	0.784		0.5357	
s2: My job title is indicative of my progress and my responsibility in the organization.	4.15	0.824			
s3: I am pleased with the promotions I have received so far.	3.94	0.956			0.4294
s4: I am satisfied with the success I have achieved in my career.	4.21	0.832			0.4056
s5: I am satisfied with the progress I have made toward achieving my overall career goals.	4.14	0.861			0.4354
s6: I am satisfied with the progress I have made toward achieving my goals for income.	3.95	1.01			0.3799
s7: I am satisfied with the progress I have made toward achieving my goals for advancement.	3.94	0.891			0.4176

Note. Blanks are abs (loading) < .3.

**Table 3.** Means, Standard Deviations, and Correlations of Internal Employability, External Employability, Overall Employability, and Subjective Career Success.

Variables	M	SD	1	2	3	4
1. Internal employability	4.1471	0.6584	1.0000			
2. External employability	3.8941	0.6425	0.4805*	1.0000		
3. Overall employability	3.9784	0.5674	0.7495*	0.9407*	1.0000	
4. Subjective career success	4.0376	0.7931	0.4521*	0.2380	0.3545*	1.0000

\* $p < .05$ .

large for PCA. Table 2 shows the descriptive statistics and the rotated component matrix of the 14 items. The three rotated components explain 16.8%, 17.25%, and 31.45% of the total variance, respectively. The items that cluster on the same components suggest that Component 1 represents external employability, Component 2 represents internal employability, and Component 3 represents subjective career success. Items e\_e4 and s2 had loadings of less than 0.3, so they were removed from the data analysis. In addition, items e\_i1 and e\_i2 had loadings of 0.5376 and 0.3888 on Component 2 but also 0.5357 for Item s1, which is intended to assess career success; as a result, Item s1 was removed. Items e\_e1, e\_e2, e\_e3, and e\_e5 had loadings of 0.3805 to 0.6016 on Component 1. Items s3, s4, s4, s6, and s7 had loadings of 0.3799 to 0.4354 on Component 3. The remaining six items on self-perceived employability (Cronbach's alphas = .7709) and external employability (Cronbach's alphas = .7523) had high reliability, while internal employability demonstrated low reliability (Cronbach's alphas = .5393). The remaining five items on subjective career success (Cronbach's alphas = .9191) also demonstrated high reliability.

Table 3 shows the descriptive statistics and correlations of four variables, including internal employability, external employability, overall employability, and subjective career success. The results indicate that internal employability is significantly and positively correlated with external employability ( $r = .4805, p < .05$ ), overall employability ( $r = .7495, p < .05$ ), and subjective career success ( $r = .4521, p < .05$ ). In addition, external employability is significantly and positively correlated with overall employability ( $r = .9407, p < .05$ ). Overall employability is

significantly and positively correlated with subjective career success ( $r = .3545, p < .05$ ).

Table 4 presents the OLS regression results for internal employability, external employability, overall employability (i.e., internal and external), and career success, respectively. The results indicate that no items are significantly impacted by an individual's age. In addition, enrollment in an on-campus program did not offer advantages for employability compared to enrollment in an off-campus program. Other factors have various effects across the four dependent variables. Compared to males, females exhibited lower internal employability and subjective career success. (See Table 4 for the estimated coefficient for *Female*, which is negative and significant at the 10% level.)

Compared to the WED graduates with only a bachelor's degree, PhD-level graduates had lower external employability and overall employability. Highest degree levels have no significant impact on internal employability or subjective career success. Moreover, year of graduation only mattered for overall employability; students who graduated before 2012 revealed lower employability levels.

GPA and employment status during one's tenure as a WED student had a significant impact on all four dependent variables. In addition, lower GPA led to a decrease in all employability and career indicators. Being employed during the duration of one's WED program, especially having had a full-time job, was also positively associated with employability on all four dimensions. Current employment status had a less significant effect on the variables of interest. However, having a part-time position was positively associated with higher internal employability. Those who



Table 4. OLS Regression Results.

	Internal Employability	External Employability	Overall Employability	Subjective Career Success
Age	-.0038 (.0085)	.0138 (.0095)	.008 (.008)	.0059 (.0097)
Gender				
Male	0 (.)	0 (.)	0 (.)	0 (.)
Female	-.327* (.1846)	-.2384 (.2181)	-.2679 (.1833)	-.472* (.2497)
Highest Degree Level				
Bachelor's degree	0 (.)	0 (.)	0 (.)	0 (.)
Master's degree	.0682 (.1882)	-.0719 (.261)	-.0252 (.218)	.3533 (.2342)
PhD	-.0505 (.2639)	-.6509** (.2908)	-.4508* (.2502)	.0539 (.3356)
Program Type				
Off campus	0 (.)	0 (.)	0 (.)	0 (.)
On campus	.3999 (.3311)	.3368 (.2577)	.3579 (.2622)	.1274 (.2644)
Graduation Year				
In and after 2012	0 (.)	0 (.)	0 (.)	0 (.)
Before 2012	-.2531 (.1902)	-.2648 (.1602)	-.2609* (.145)	-.073 (.2324)
GPA				

(Continued)

Table 4. (Continued).

	Internal Employability	External Employability	Overall Employability	Subjective Career Success
4.0	0 (.)	0 (.)	0 (.)	0 (.)
3.5-3.9	-.1801 (.1497)	-.1056 (.1777)	-.1304 (.1485)	-.0438 (.2349)
3.0-3.4	-.3593 (.2829)	-.4861** (.2226)	-.4438* (.228)	-.278 (.2707)
2.0-2.4	-1.619*** (.3316)	-.6378* (.3297)	-.9647*** (.294)	-2.135*** (.372)
<i>Employment Status While Enrolled as a Student</i>				
Unemployment	0 (.)	0 (.)	0 (.)	0 (.)
Part-time employment	.2341 (.2719)	.8014** (.3233)	.6123*** (.2171)	.6149** (.235)
Full-time employment	.5849** (.2663)	.7562** (.3674)	.6991*** (.2579)	.5926** (.2937)
<i>Current Employment Status</i>				
Unemployment	0 (.)	0 (.)	0 (.)	0 (.)
Part-time employment	.6135** (.2982)	.0836 (.2354)	.2602 (.2051)	.0363 (.4162)
Full-time employment	.4097 (.26)	-.2931* (.1659)	-.0588 (.1843)	.1617 (.3454)
<i>Years of Work Experience in the Professional Field</i>				

(Continued)

Table 4. (Continued).

	Internal Employability	External Employability	Overall Employability	Subjective Career Success
1-3 years	0 (.)	0 (.)	0 (.)	0 (.)
4-6 years	.2038 (.3801)	.1278 (.2052)	.1531 (.2205)	.2866 (.4167)
7-10 years	.1261 (.414)	.1558 (.2384)	.1459 (.2741)	.0808 (.3126)
More than 10 years	.5081* (.2756)	.2285 (.1637)	.3217* (.1762)	.5908* (.3521)
Constant	3.376*** (.589)	2.946*** (.49)	3.09*** (.4445)	2.705*** (.6966)
N	85	85	85	85

Note. Standard deviations in parentheses.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

work full-time positions had lower external employability compared to those reporting being unemployed.

Work experience led to higher employability and career success but only for those working in the professional field for more than 10 years. Interestingly, more relevant work experience was not significantly correlated with higher external employability; rather, the positive association was driven by higher internal employability.

## Discussion

This study was conducted to explore the perceptions of employability and career success among WED graduates ( $N = 85$ ). The study also examined the relationships among demographic variables and the perception of employability and career success. Consistent with Rothwell and Arnold's (2007) framework, the results point to the existence of two dimensions: internal and external employability. Therefore, the study suggests that Rothwell and Arnold's (2007) scales of perceived employability and subjective career success are useful and valid for assessing WED-graduate perceptions of employability and career success. Regarding the relationship between perceived employability and subjective career success, this study shows that subjective career success is positively correlated with perceived employability, especially in terms of internal employability. Thus, the results support and extend the findings of previous studies (Bozionelos et al., 2016; Verbruggen et al., 2015). People having higher self-confidence concerning their employability are also likely to be more confident about their career success.

As to the associations between demographic variables and perceptions of employability and career success, the results of this study reveal perceived employability and subjective career success are not altered by age, supporting previous studies (Kasler et al., 2017; Jackson & Wilton, 2017). No difference in perceived employability is found based on gender in this study, which is also consistent with previous research (Greer & Waight, 2017; Jackson & Wilton, 2017).

However, compared to men, women still possess less confidence in their internal employability and career success. One reason for this finding might be that women experience a gender-based wage gap and lower rates of workforce participation. According to the U.S. Census Bureau (2017), U.S. women are only paid 80 cents for every dollar paid to their male counterparts. This underpayment of women creates an annual gender wage gap of \$10,086. In addition, the Bureau of Labor Statistics

(2018a) reports that female workers constitute only 46.9% of all workers.

This study indicates that PhD-level WED graduates feel less confident in their employability, especially external employability, compared to WED graduates with a bachelor's degree, since PhD-level graduates might be considered overqualified. According to Torpey and Watson (2014), only about 3% of all jobs in the United States required a doctoral degree or professional degree. In addition, this study shows that the WED degree level does not influence internal employability or subjective career success, differing from prior studies (Drange et al., 2018; Rothwell & Arnold, 2007).

In addition, this study demonstrates that graduates with lower GPAs have less confidence in terms of their employability and their career success, supporting previous work on this issue (Huang, 2015; Thang & Wongsurawat, 2016). Given that GPA is an indicator of academic performance, perceptions related to ability are influenced by one's knowledge and skills. Students who have mastered competencies and achieved a higher level of academic performance report greater perceived employability and subjective career success.

The year of graduation impacted perceived employability and subjective career success; this result is also consistent with the previous study addressing this factor (Thang & Wongsurawat, 2016). According to the U.S. Bureau of Labor Statistics (2018a), the unemployment rate has decreased from 9.6% to 4.1% between 2010 and 2017. The World Bank (2018) also reported that the U.S. gross domestic product has increased from \$14.964 trillion to \$18.624 trillion between 2010 and 2016. Therefore, overarching annual economic variables influence people's perceptions of their employability and career success. In addition, graduates who completed their degrees more recently may think that they gained updated knowledge and skills through their studies, so they are more confident about their employability.

Those who were employed while enrolled as WED students have more confidence in their employability and career success. Being employed during one's studies leads to additional workplace experience, as well as application of what is being studied. As a result, these individuals may develop more hands-on experience in honing relevant skill sets, as well as an enhanced understanding of the applicability of such skills. In addition, they have more opportunities to develop a professional network; therefore, they may feel more confident of their employability and career success. However, according to the results of this study,

current, post-graduation employment status does not influence perceived employability or subjective career success. Moreover, the findings indicate that graduates employed in full-time positions are less confident in their external employability, supporting Nazar and Van der Heijden's (2012) study but diverging from findings by Kirves and colleagues (2014). Specifically, individuals in an organization may expect opportunities for career development to be offered within their organization rather than by the external labor market (Nazar & Van der Heijden, 2012). However, the present study indicates that professional work experience is positively related to perceived employability and subjective career success, conforming with the results of previous studies (Heslin & Turban, 2016; Qenani et al., 2014; Thang & Wongsurawat, 2016). People gain skills and enhance their capabilities through work experience; this, in turn, could lead to them feeling more confident about their employability and career success.

## Implications

The present study has identified the perceptions of employability and career success among WED graduates. The results may be useful to public administrators, higher education institutions, WED faculty, HRD professionals, students, and researchers.

First, the findings of this study have confirmed evidence of a gender gap in the workplace, since females reported lower internal employability and subjective career success than males. To close the gender gap, governmental agencies and legislators have the responsibility of establishing and implementing policies to promote greater workplace equality (Boye & Grönlund, 2017).

Second, institutions of higher education and HRD professionals should work together to create more opportunities for internships. During these internships, students could practice their academically acquired knowledge and gain hands-on experience. In addition, more transition training should be provided to students to prepare for workplace entry and to furnish a solid understanding of employers' demands (Ishengoma & Vaaland, 2016).

Third, WED faculty could utilize this study to assess WED-program effectiveness. Of particular interest should be helping students improve their academic performance since that is considered an indicator of employability and career success (Huang, 2015; Thang & Wongsurawat, 2016).

Fourth, students interested in WED programs could use this study to predict their career development and success. Potential and current students could form more realistic expectations of their career trajectory and could explore their potential career path based on feedback provided by WED graduates (Greer & Waight, 2017).

Finally, this study provides evidence of the validity of Rothwell and Arnold's (2007) scales of perceived employability and subjective career success. As a result, researchers can be confident of their use in future studies.

## Limitations

This study has two limitations. First, the number of participants who graduated within the past five years is small ( $N = 12$ ), so the findings may not be generalizable to young professionals in the workplace. In addition, WED programs may have evolved during the past five years; as a result, the findings may be not applicable for assessing current WED programs. Future studies could recruit more recently graduated participants. However, the results are useful for providing a longitudinal perspective. Second, there is an inherent sampling bias as potential participants were contacted through a WED-program-affiliated LinkedIn group and the university's alumni association. Both groups were self-selected into by program graduates, who constituted the group of targeted study participants. As a result, the members of these groups, and ultimately the participants in this study, may be more confident of their employability and career success than those who did not join the LinkedIn group or the alumni association and/or those who did not respond to the survey. Future researchers could recruit participants via other methods to decrease the sampling bias.

## Recommendations for future research

It is important to learn the perceived employability and subjective career success of WED graduates, since those variables underlie the quantitative survey responses demonstrated by this study. Therefore, qualitative studies should be conducted to explore what skills or abilities WED graduates obtained or improved upon, which helped them succeed in the workplace. Also, the suggestions from graduates should be studied via in-depth interviews so that institutions of higher education could improve WED-program quality. Moreover, future studies should explore more variables that could influence employability and career success. In addition, it is important to learn about

employers' perspectives regarding their employees' employability. Finally, it is also important to expand this research to include the perceived employability and subjective career success of graduates across different professional fields and across the globe.

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