A JOB EMBEDDEDNESS COMPARISON OF PROFESSORS BASED ON EMPLOYMENT STATUS AND TYPE

by

Jeremy Todd Bowser

Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

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ABSTRACT

The purpose of this study was to explore the possibility of difference in the job embeddedness attitudes of full-time and part-time professors, and possible differences in job embeddedness attitudes between professors at community colleges and state universities. This research project focused on Criminology and Criminal Justice departments. The dependent variables were on-the-job and off-the-job embeddedness, and the independent variables were school type and employment status. The timely study was based on the recent trend toward hiring adjunct professors in lieu of tenured professors at community colleges and universities. The literature review identified a lacuna in the embeddedness literature within the education context, and more especially in higher education. Embedded figures theory, field theory, social exchange theory, affect theory, job satisfaction, employee retention, and intention to leave were all instrumental in the evolution of job embeddedness. This quantitative study employed a causal-comparative design to examine the two research questions. A convenience sample of 148 volunteer full-time and part-time professors/instructors participated from a population of approximately 230-260 professors. All professors were asked to complete an online questionnaire. There were 14 community colleges and 12 state universities in one state who agreed to participate. Data was collected online via Survey Monkey and uploaded into SPSS for analysis. Each research question used a 2 × 2 factorial ANOVA. The two-way ANOVA examined the three null-hypotheses all at once for each research question. A relationship was discovered between full-time and part-time professors with off-the-job embeddedness, and this null (H₀5) was rejected at p < .001.

Keywords: job embeddedness, higher education employment, Criminology, Criminal Justice, 2 × 2 ANOVA
Dedication

To those who by patience in well doing seek for glory and honor and immortality, He will give eternal life (Romans 2:7). First, I dedicate all things to Jesus Christ. I thank God every day that He would send His son to die for me. Secondly, I dedicate this dissertation to my wife, and best friend, Dexie. She has been a true blessing for the last 19 years of our marriage. I will be forever grateful for her encouragement and support. And lastly, to my daughter Nedilynn: Your turn!
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The military provided me with the opportunity to earn an A.S. degree and taught me how to be a man. The American taxpayer partnered with me through the GI Bill and afforded the opportunity to earn B.S. and M.A. degrees. Liberty University’s tuition discount for veterans and police officers is the only reason I could afford this program. Thank you Liberty. And thank you to Jerry Falwell, and family, for Liberty University.

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List of Abbreviations

Analysis of Variance (ANOVA)
Criminology and Criminal Justice (C&CJ)
Embedded Figures Theory (EFT)
Institutional Review Board (IRB)
Off-the-Job Embeddedness (JEoff)
On-the-Job Embeddedness (JEon)
Research Question One (RQ1)
Research Question Two (RQ2)
Statistical Package for Social Sciences (SPSS)
CHAPTER ONE: INTRODUCTION

Overview

Job embeddedness is a relatively new construct. The seminal study conducted by Mitchell, Holtom, Lee, Sablynski, and Erez (2001) developed job embeddedness theory to understand why people stay at their jobs. This dissertation will examine how the construct applies to full-time and part-time Criminology and Criminal Justice (C&CJ) professors at community colleges and state universities. This first chapter begins by briefly discussing the background of this topic. Also, the Problem Statement, Purpose Statement, Significance of the Study, Research Questions, and Definitions are all addressed in some detail.

Background

The hiring process for full-time professors can be both time-consuming and costly (Afzalur Rahim, Civelek, & Liang, 2015). Interviews, second interviews, drug testing, applications, résumés, demonstrations of skills, transcript verification, and publication reviews can take months to examine. Each of these steps in vetting candidates can have a significant impact on the institution’s personnel budget. Travel costs for candidates and relocation expenses for new hires are just two prominent examples of expenditures that highlight the importance of this issue (Alarid, 2016). Human resources departments know all too well how turnover can impact an organization. The institution’s academic milieu and effectiveness suffer when experienced, and well-respected professors voluntarily transfer or otherwise separate from their respective institutions.

The turnover implications are exacerbated when the department or institutional leaders voluntarily separate. Retirements can also adversely impact an institution. A large percentage of leaders at community colleges in the United States are retiring or becoming eligible for
retirement (Hilley & Morris, 2016). Vacancies create an urgent need for qualified replacements. Recruiting and retaining professors can be challenging in a highly competitive market that spans the world over (Abramo, D’Angelo, & Rosati, 2016). Professor turnover at many of these two-year institutions will rise steadily without competent, experienced, and capable leadership. Frontline leaders have a substantial influence on retaining employees (Karatepe, 2014). Therefore, retaining effective leaders is just as important as retaining a quality professorate. In many cases, these leaders have been tasked with teaching classes while serving as an administrator.

The literature is still unclear regarding the educational impact of using adjunct or part-time faculty to teach students in their first two years of college (Hutto, 2017). A myriad of factors is at play in determining educational achievement or outcome. For example, sleep (Heijden et al., 2018), high self-efficacy (Schneider & Preckel, 2017), and student demographics (Hermann, Bager-Elsborg, & McCune, 2017), represent examples of potential factors in achievement or outcome in higher education. A tenured professorate, in many cases, serves as the backbone of a department. Some institutions use only full-time tenured faculty members. The question of why professors stay at their institutions is interesting. Job embeddedness theory has caused researchers to shift their focus from why people leave their jobs to why they stay (Peltokorpi, Allen, & Froese, 2014). Examining the reasons instructors stay with a community college or a university can positively affect recruitment and retention policy and practice (Sherman, 2014). Distinguishing the differences in job embeddedness of professors at a university or community college has never been studied.

Undergraduate C&CJ programs are practical because they teach students how to impact their communities, while still garnering respect in academia (Schanz, 2013). Berkeley Police
Chief August Vollmer initiated the first bachelor’s program in Criminal Justice at the University of California in 1916 (Oliver, 2016). C&CJ degree programs have evolved immensely over the last 100 years. The quality of instruction in these areas can mean the difference in students dropping out, ending their education with an associate’s degree, or continuing on toward graduation or even graduate school. C&CJ disciplines are unique in that many professions in these fields require only a high school diploma, an associate’s degree, or 60 college credits as prerequisites. Therefore, upon graduation from a community college, many students move on to become police officers, corrections officers, probation officers, and so forth without ever transferring to a university. Consequently, the job embeddedness of the instructors at the community college level could be critical for these disciplines. As stated above, researchers have not used job embeddedness to compare community college and university professors. Furthermore, there have been no job embeddedness studies within the academic disciplines of C&CJ.

Field theory (Lewin, 1951) and embedded figures (Witkin, 1950) are foundational to understanding job embeddedness because they are “research related ideas that explain the core of the construct” (Lee, Burch, & Mitchell, 2014, p. 200). Lewin’s work in the planned approach to change has three main components: field theory, group dynamics, and the three-step model of change (Burnes & Cooke, 2013). Lewin’s work helps researchers understand how enhanced or weakened conditions can bring about desired behavioral change. Mitchell et al. (2001) rely conceptually on Lewin (1936) in developing the seminal study that both proposed the job embeddedness construct and developed a formative or composite instrument of measure. The three dimensions of this construct are as follows: the extent to which people are linked to others or activities, the degree to which their jobs and communities fit with other aspects of their life
spaces, and the ease with which these links are broken (Mitchell et al., 2001). Both on- and off-the-job dimensions are included.

Lee, Mitchell, Sablynski, Burton, and Holtom (2004) further the theory by distinguishing between on-the-job and off-the-job embeddedness as it pertains to absences and job performance. On-the-job embeddedness was predictive of job performance, and off-the-job embeddedness was predictive of voluntary turnover and volitional absences. This secondary study highlights the differences between the two dimensions. The most recent advancement to the measurement of job embeddedness is the development of a new instrument by Clinton, Knight, and Guest (2012). They developed an instrument that tests both on- and off-the-job embeddedness in a way that has practical and statistical benefits, while still reflecting the original job embeddedness construct. Tenure was also a consideration when the researchers were developing the new instrument.

The links or connection to others is one salient component in the triad that encompasses the job embeddedness construct. Social exchange theory has been used as a conceptual framework to explore the relationship between employees and the organizations they work for (Melián-González, 2016). Homans (1958) developed social exchange theory to describe how social interactions are like an economy. People exchange influence as a cost and reward in social interactions. A more recent development in social exchange theory is Lawler’s (2001) affect theory. This landmark study emphasizes the importance of emotions in social exchanges that form relational and group attachments. Affect theory has also been used to explain teacher turnover (Price & Collett, 2012). The study used affect theory to build on rational cohesion theory by investigating frequent interactions and positive emotions within the school context.
These foundational theories are all relevant because they drive and inform future research in the areas of job satisfaction, job involvement, organizational commitment, and employee engagement. It is essential for higher education administrators to have at least a cursory understanding of job satisfaction, employee retention, and job embeddedness. The perception of job embeddedness mediates turnover attitudes and behaviors (Murphy, Burton, Henagan, & Briscoe, 2013). As described above, many job-related attitudes are closely related to embeddedness. A professor’s job satisfaction consists of cognitive, affective, and behavioral components of their work and non-work lives (Chaita, 2014). The theoretical background of what moves professors beyond mere contentment is complex. Sociological, interpersonal relations, and organizational culture theories all play a role in understanding job attachment.

As stated above, there is an absence of job embeddedness literature concerning C&CJ professors. A study of community college and university professors’ embeddedness can help fill the literature gap by applying this theory to the higher education employment paradigm. There has been some research in turnover theory in higher education. For example, research indicates that the average level of compensation among faculty and the presence of a faculty union are significant factors in professor turnover (Nagowski, 2006). However, why professors stay has not been examined at this level of education in any peer-reviewed study as it relates to community colleges and state universities.

**Problem Statement**

Community colleges, by their very nature, are not research-centered institutions. Therefore, C&CJ professors do not seek employment at community colleges for the purpose of furthering their research vita. It could be that research and publication aspirations are areas that impact long-term embeddedness within the context of higher education employee development.
Community colleges are usually not able to provide their professors with this type of career development. Growth opportunities provide professors with a better fit to their jobs and organizations (Takawira, Coetzee, & Schreuder, 2014). One study on C&J professors found there was an unwritten expectation of at least 16 published articles before promotion to full professor (Crawford, Burns, & McNamara, 2012). Full professor is a promotion that many college educators seek, and C&J professors are no exception. The use of part-time or adjunct professors to carry out the bulk of teaching obligations is also an interesting dynamic in this area of study. Therefore, a comparison of job embeddedness between full-time and part-time professors is both timely and necessary. The academic community is not likely to study itself, and it is even less likely to study its position as a workplace (Thrash, 2012).

An overwhelming number of studies on job embeddedness have used the Mitchell et al. (2001) instrument. Google Scholar states that this study has been cited over 2,200 times. Akulli (2015) was the first to use the Cunningham, Fink, and Sagas (2005) instrument for job embeddedness. This instrument used a 6-item scale and was determined to be a better predictor of intention to stay than the original Mitchel et al. (2001) 40-item scale. Crossley et al. (2007) developed a 7-item global measure.

Clinton, Knight, and Guest (2012) advanced yet a newer instrument with 12 items and tested its reliability and validity on the military and information technology personnel in the United Kingdom. The newer instrument is an improvement to the Crossley et al. (2007) instrument because it emphasizes the three components of the original theory while accounting for on- and off-the-job components. Clinton et al. (2012) recommended the instrument for use in additional contexts because it was found to be valid and reliable for diverse groups. However, according to Google Scholar, the article has been cited less than 50 times, and there are no new
published studies that used this instrument. Therefore, this dissertation will strengthen the applicability of this instrument to additional contexts by applying it to a profession that has yet to be examined. This research may be especially useful to community college administrators. The problem is a vast literature gap in investigating job embeddedness within the context of higher education employment generally.

**Purpose Statement**

The purpose of this non-experimental quantitative study is to compare the job embeddedness attitudes of C& CJ professors at community colleges with their counterparts at state universities. To do this effectively both the part-time and full-time faculty were sampled and analyzed. The cross-sectional survey and group comparison will help supplement the literature gap in the application of job embeddedness theory to higher education employment generally, and within the disciplines of C& CJ departments specifically. The dependent variables are professors’ on-the-job embeddedness and off-the-job embeddedness as measured by the Clinton et al. (2012) instrument. The independent variables are school type (four-year state university or community college) and employment status (full-time or part-time).

Job embeddedness is a construct that merely refers to why people stay at their jobs (Mitchell et al., 2001). The three components of the theory are fit, links, and sacrifice. These components encompass both on- and off-the-job environments. Fit refers to comfort or compatibility (Clinton et al., 2012). Links are formal or informal connections with others, whereas sacrifice refers to the material or psychological costs of leaving one’s job or community. The amalgamation of these factors constitutes the attitudinal aspects of job embeddedness. For this study, the term professor refers to full professors, adjunct professors, instructors, or anyone who teaches classes for the college or university in a full-time or part-time capacity. The
institution ultimately determines the part-time and full-time status. Employment status will be
defined further in the definitions section below. For this study, C&CJ also includes similar titles
such as administration of justice, criminal justice management, or other applicable degree fields.
All the C&CJ professors at public community colleges and state universities in one state will
constitute the population for this study. However, two state universities declined permission and
did not participate. The study used a convenience sample of those who consented to participate
from each of the remaining 26 institutions.

**Significance of the Study**

This study is significant for many reasons. As described above, this study is timely
because of the increased use of adjunct professors. Second, this study expands the existing
literature on job embeddedness by applying the theory to higher education through C&CJ
departments. Job embeddedness theory is prevalent in a wide range of occupations and
disciplines. However, there have been very few studies on embeddedness conducted in the field
of education. One study examined the job embeddedness of teachers at the elementary, middle,
and high school levels (Watson, 2011). Another study examined this theory from the perspective
of the foreign-born faculty at United States universities (Akulli, 2015). There have been no
studies published that compare the job embeddedness of full-time and part-time C&CJ professors
at community colleges and universities. Therefore, this study will offer a significant contribution
to existing literature in this field.

Scholarly contributions and publications boost promotional opportunities in higher
education (Crawford, Burns, & McNamara, 2012). Part-time professors and community college
professors are not typically engaged in conducting scholarly research as part of their primary
duties. Therefore, promotional opportunities for these professors may be more difficult to
obtain. Furthermore, there is a significant pay gap between full professors, assistant professors, and adjunct or part-time professors (Crawford et al., 2012). There has been a trend away from tenure in the last 30 years, and now over 75 percent of new appointments are not tenure-track positions (Carey, 2012). However, the results of this dissertation will challenge this finding for C& CJ departments at state universities. The innovative disruption in education caused by technology has created an environment ripe for research. Since there are reportedly fewer tenure-track positions available for professors, a study on job embeddedness is timely. Institutions will be in a state of constant turnover if their faculty is not embedded. The quality of education at college institutions may be at risk by perpetual professor turnover. The cost of constant turnover is also a relevant implication that requires consideration.

**Research Questions**

The research questions for this study are:

**RQ1:** What difference if any exists in the on-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges and state universities, as shown by the Clinton et al. (2012) attitudinal measure?

**RQ2:** What difference if any exists in the off-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges and state universities, as shown by the Clinton et al. (2012) attitudinal measure?

**Definitions**

1. *Job Embeddedness* - Job embeddedness is a construct that explains why people stay at their jobs. This construct is comprised of three factors: their links to other people, perceptions of their fit to the job and community, and the sacrifice involved if they left their jobs (Mitchell et al., 2001).
2. *Fit* - “The perceived compatibility or comfort with one’s organization or community” (Clinton et al., 2012, p. 111).

3. *Links* - “The formal or informal connections one has with other entities at work or in the community such as people, groups, places, things, or activities” (Clinton et al., 2012, p. 111).

4. *Sacrifice* - “The perceived material or psychological costs associated with leaving one’s current job or community” (Clinton et al., 2012, p. 111).

5. *Part-Time Faculty* – Anyone who teaches less than the average full-time teaching load, or has less than a full-time faculty assignment and range of duties, or may have a temporary full-time assignment (Gappa, 1984).

6. *Full-Time Faculty* – Anyone who has a “normal full-time workload/responsibilities expected of a person for that classification and assignment” (Northwest Commission on Colleges and Universities, 2017, p. 92).
CHAPTER TWO: LITERATURE REVIEW

Overview

Chapter two of this dissertation will begin with a preliminary description of the most applicable theoretical framework for a study in job embeddedness. The theoretical framework is critically important in a quantitative study because it justifies the importance and significance of the research (Lederman & Lederman, 2015). This undertaking is distinctive in that the relevant theories involved have their natural origins within the 20th century and in some cases the beginning of the 21st century. Future sentences will demonstrate how embedded figures and field theory are foundational to any understanding of job embeddedness. Job embeddedness will be dissected and explained in some detail. Social exchange theory, affect theory, job satisfaction, employee retention, and intention to leave will be discussed in their antecedent roles as foundational precursors to the development of job embeddedness.

The second section of this chapter will consist of a general synthesis of recent and relevant literature. This literature review grounds this study firmly on the best available peer-reviewed research published from the fields of psychology, organizational management, business administration, and higher education administration. The related literature section supports the purpose of this study in several ways. The literature gap in applying job embeddedness to the higher education context is abundantly clear. The current employment milieu of community colleges and universities will be examined as it pertains to C&CJ professors. Also, the most current job embeddedness literature will be assessed concerning its applicability within the higher education context.
Theoretical Framework

Embedded figures (Witkin, Dyk, Faterson, Goodenough, & Karp, 1962) and field theory (Lewin, 1951) were both utilized in the conceptual development of job embeddedness theory (Mitchell et al., 2001). Since job embeddedness is modeled after embedded figures, it is beneficial to gain some perspective of what embedded figures are and how they function. It is similarly advantageous to explore field theory based on this same underlying premise. Social exchange theory (Blau, 1964; Homans, 1958; Homans, 1961) began by concentrating on exchanges between groups in social situations. Relationships are foundational to social exchange theory. Affect theory (Lawler, 2001) focuses on the emotions involved in these social exchanges. Job satisfaction (Hoppock, 1935), one of the most prominent attitudes studied in the turnover literature, is a formidable ancestor of job embeddedness (Mitchell et al., 2001). Employee retention is essential to the discussion because it is ultimately what job embeddedness attempts to predict (Holtom & O’Neill, 2004; Lee et al., 2004). Intention to leave (Spencer, 1990) will be discussed both in terms of its forerunner influence and the parallel developments with job embeddedness theory. And lastly, the critical aspects of job embeddedness will be addressed. The significant contributions to these theories will be briefly detailed in the following sections to reveal the theoretical foundation on which the job embeddedness construct hangs.

Embedded Figures

Embedded figures will be briefly summarized to gain a cursory understanding of how it influenced job embeddedness theory. Embedded figures are images on a psychological test that are immersed in or attached to their background, in a manner that is difficult to immediately distinguish or separate (Mitchell et al., 2001). The authors did not cite Witkin et al. (1962)
specifically as inspirational in their original article. However, elsewhere two of the authors state that the work of Witkin et al. (1962) “informed our thinking” (Mitchell & Lee, 2001, p. 215).

The Witkin et al. (1962) book details the landmark study of how psychologists were to make sense of space orientation. In this study, they examine the differences in how people orient themselves in space. Witkin et al. (1962) state they were advancing the field of psychological development in personal growth by utilizing the theory of differentiation as an underlying conceptual framework. The study series concentrates on the differences in people’s perceptions, based mainly on childhood development. This landmark study helps psychologists understand how people see themselves infused in various contexts or fields. While the embedded figures test was one of three tests used in the study, it is easy to discern why it became one of the pioneers that inspired job embeddedness theory.

The Embedded Figures Test (EFT) requires subjects to separate an object from the field in which it was incorporated (Witkin et al., 1962). Every quantitative study in job embeddedness theory identified by this researcher, including the primary work of Mitchel et al. (2001), has failed to explain this underlying and influential presupposition. Therefore, this current undertaking will now offer some brief commentary to elucidate how the EFT measures the cognitive processes that occur during the test. The EFT asked subjects to identify a simple figure within a larger and more complex figure (Witkin et al., 1962). The original authors relied on the figures developed by Gottschaldt (1926). However, colored patterns were superimposed to make the identification less apparent. The EFT was administered using 24 complex figures and allowed up to five minutes per person for their identification. The researchers determined if the subjects were field-dependent or field-independent based on the amount of time needed per item.
Witkin (1950) described in detail the EFT and how it improved on the Gottschaldt (1926) figures. The simple figure is first shown to the subject and then hidden. Next, the subject is shown the complex figure and timed until she identifies the simple figure. The presenter may show the simple figure a second time, but the subject may not see both figures in tandem. The figures have numbers listed inside to indicate how the researcher should color code them. A simple figure of a triangle within the complex figure of a transparent cube is one example. The sides of the cube might be blue, and the top might be orange. An example of the practice figure is presented below in Figure 1. From this example, it is evident how the simple figures seem embedded into the complex figure. The Witkin (1950) EFT consisted of 24 trials of different figures that vary in complexity. While this original study is quite fascinating, further discussion would be beyond the scope of this literature review.

The EFT psychological measure offers a firm foundation for an understanding of how Mitchell et al. (2001) developed the job embeddedness construct. The crux of understanding psychology, in general, is qualifying universal principles that can be implemented ubiquitously to obtain predictable results (Mitchell & Lee, 2001). Witkin, Oltman, Raski, and Karp (1971) published a manual for administering the EFT. The test has been used extensively to research individual differences in perception (De-Wit, Huygeli, Van der Hallen, Chamberlain, & Wagemans, 2017). Perception is related to cognitive functioning, personality characteristics, and social behavior (Hao, 2013). Perception is a critical aspect of psychological attachment. Psychological attachment is what embeds employees at their jobs. Identifying the underpinnings of this attachment is what eventually morphed and evolved into the job embeddedness construct.
The next section summarizes these individual differences related to field dependence and field independence. The second research component that helps explain the core of job embeddedness is field theory (Mitchell et al., 2001). Therefore, the next section will survey this prominent and influential theory.

Field Theory

Kurt Lewin worked on his psychological theories from both the Massachusetts Institute of Technologies (MIT) and the University of Michigan before his untimely demise in 1947 (Zimbardo, 2016). While depicting Lewin as the father of social psychology is still up for debate (Billig, 2015), his theories have been influential and inspiring to psychologists in both the 20th and 21st centuries. Topological psychology, or field theory, was developed and refined over a 25-year period (Burnes & Cooke, 2013). Lewin’s (1936) work on the principles of topological psychology presented the culmination of field theory research. In this study, Lewin attempted to describe a person’s understanding of themselves from both within and from without their
surroundings. He theorized that psychologists might describe behavior by reducing it to a mathematical equation. In this way, he established that any study of behavioral psychology must necessarily include a review of environmental changes. In other words, the inner person is representative or reflective of some level of the environment. Lewin’s (1936) work is also illustrative of the overlap and interaction of psychological regions and external environmental fields. This original work progressed or evolved to include the seminal research (Lewin, 1951) referenced by Mitchell et al. (2001) as being at the core of job embeddedness.

Interestingly, Lewin’s research was published some four years after his death. The publication both summarized and systematically organized his work by classifying field theory as a conceptual system (Smith, 1951). The field theory chapter of Lewin’s (1951) book is most related to the Mitchell et al. (2001) stimulus for job embeddedness. The research was written in 1944 and published in 1951 as a chapter in the referenced book. Here Lewin was also concerned with quantifying psychological concepts. One relevant area he discussed was that of psychological position. Lewin defined position as the “special relation of regions” (Lewin, 1951, p. 197). The examples of positions he listed are inherently applicable to job embeddedness. Group belongingness, occupational position, and involvement in activities are three examples given to illustrate conceptual positions. These field theory examples were obviously instrumental in helping Mitchell et al. (2001) in their compilation of the job embeddedness characteristics. Locomotion, cognitive structure, force, goal, conflict, fear, power, and values are other conceptual types that were briefly illustrated in their relation to field theory. All have some underlying psychological applicability to attachment.

Chapter three of Field Theory in Social Science is entitled “Defining the Field at a Given Time” and was written in 1943 (Lewin, 1951, p. 200). In this chapter, Lewin defined field
theory because there had been some ambiguity in its use by other researchers at the time. Field theory, according to Lewin, is the method of analyzing causal relations and building scientific constructs. The mathematical formula Lewin (1951) used was \( B = f(P, E) \). Livneh, Bishop, and Anctil (2014), summarizing the formula in the simplest of terms, explain how Lewin saw behavior as a function of psychological and biological life space. The B was for behavior, the f was for function, the P represented the differentiated region of the life space, and the E was the encompassing context that P can perform locomotion. Lewin borrowed from field theory in physics and defined life space as coexisting facts in a psychological or social situation (Burnes & Cooke, 2013).

Embedded figures, as highlighted above, and field theory set the stage for understanding how Mitchell et al. (2001) developed the contemporary and immensely popular theory that helps us understand why people stay at their jobs. The amalgamation of these early bodies of research resulted in the conceptual framework for job embeddedness. Lewin believed we should see ourselves as entangled in a network of forces and connections in varying degrees (Mitchell & Lee, 2001). A strongly embedded person within any given context will have strong attachments. The Witkin et al. (1962) study shows simple figures immersed within complex figures. Similarly, links, fit, and sacrifice embed people in their work environment. This level of “stuckness” accounts for an inertia that ultimately immobilizes people and keeps them in their jobs (Mitchell & Lee, 2001, p. 216).

**Social Exchange Theory**

Social exchange theory evolved from the work of Homans (1958), Homans (1961), and Blau (1964). Homans’ 1958 examination of the cohesiveness of groups investigated the interactions between members of a group in social situations. Social exchange theory shifted to
look at social interactions as an exchange that involved costs and rewards. In his book on this topic, Homans (1961) stated that all relationships amount to social exchanges in their basic forms. Zeitlin (1975) summarizes Homans (1961) by identifying four foundational propositions of stimulus conditioning. First, if interactions result in a positive or rewarding experience and future interactions reinforce that interaction, then similar experiences are likely to continue. Second, the more often positive interactions happen within a given period, the more likely the other person will reciprocate. Third, the more valuable the activity from another person, the more often the other person will emit the rewarded activity. And lastly, the more often in the recent past that one receives a rewarding activity from another the less valuable future activity becomes.

The Blau (1964) text was very thorough in exploring social exchange and noting the exchanges that affect individual and group relationships. Social exchange theory predicated the psychology behind what eventually evolved into job embeddedness. Blau (1964) explores the role that power imbalances play in shaping social interactions. In this context status becomes a form of capital. Power imbalance highlights a particularly interesting aspect of social exchange at the workplace. Blau (1964), like Homans (1961), examined relationships in terms of an exchange of costs and rewards. Power offers a unique dimension to the relationship because a person with power can force conduct based on a real or perceived imbalance (Bae & Yang, 2017). Dominance hierarchies have been a permanent feature of the environment in which all complex life has adapted reinforcing competition to get to the top (Peterson, 2018). Power imbalance in the workplace can play a much more significant role than in social settings. Top managers represent the organization as a whole (Clark, 2016), and this representation trickles
down through the ranks and ends at the lowest level. Therefore, the power of the immediate supervisor transforms into the power of the organization by proxy.

Social exchange theory provides an essential theoretical framework for understanding workplace behavior because it presupposes that an agency’s treatment of employees can predict or influence their behavior (Clark, 2016). Recognizing how these power imbalances play out in workplace social interactions accentuates an essential aspect of the attachment puzzle. An effective leader seeks to encourage and empower subordinates (Wu & Lee, 2017). This sharing of power helps tap into employees’ intrinsic motivation and improve other work-related attitudes. Exploring power imbalances in the workplace has splintered social exchange theory in several directions. Contemporary job attachment researchers explore leader-member exchange theory as one of the more promising avenues in the social exchange literature. This theory focuses specifically on the relationships between leaders and their subordinates (Power, 2013). The interaction between leaders and subordinates showcases an intrinsic component of both the promotional process as well as the hiring process. Each member serves as a piece of a larger structure that must fit together appropriately for institutional effectiveness.

Servant leadership represents another prevalent aspect of social exchange theory in the workplace. Unfortunately, there is a gap in the literature that would examine how servant leadership competencies translate into outcomes (Pearse, 2017). However, there is a general consensus that service demonstrates an essential competency in leadership training and education. Social exchange theory underlies both power imbalance and servant leadership. The servant leader focuses on serving others, values the follower’s growth, and always displays a moral component (Williams, Brandon, Hayek, Haden, & Atinc, 2017). While research is limited in servant leadership, there exists some indication of its importance in organizational outcomes.
As mentioned earlier, social exchange theory has branched out in many directions. Power imbalances and servant leadership represent just two strains of study in social exchange theory, which have shown promising developments in the organizational culture literature.

**Affect Theory**

Lawler’s (2001) affect theory is another vital line of development in social exchange theory. Edward Lawler published his landmark study on the affect theory of social exchange in 2001. A central feature of the study was to show how emotions influence social exchanges. The theory establishes standard principles that apply to a broad range of social milieus. Support or advice among co-workers is one example listed in the study. As people exchange resources such as goods, services, and knowledge, their personal preferences are advanced in the exchange process (Serenko & Bontis, 2016). Researchers have used affect theory to understand human agency in a variety of contexts (Ahern, 2017). However, there still is no consensus on how affect is assigned (Cifor, 2016). According to Cifor (2016), most definitions include any force that creates a relationship between a body and the world. Understanding the role of emotions in social interactions can have a profound impact on how one approaches human resources, management, and training/education in an unlimited number of employment contexts.

The original study offered five foundational assumptions of affect theory (Lawler, 2001). First, social exchange produces feelings along a continuum that ranges from positive to negative. Second, the emotions from the social exchange form self-reinforcing or punishing stimuli. Third, actors tend to strive to reproduce positive emotions and limit negative emotions caused by social interactions. Fourth, the emotions produced by social exchange initiate cognitive efforts to understand the causes of these global feelings. This attribution process results in more
specific emotions. And lastly, actors in social exchanges explain their feelings partly based on social units, such as networks or groups. These five assumptions represent the building blocks of affect theory. People’s emotions or feelings determine their mood (Burton, Heintzelman, & King, 2013). Negative moods can affect exchanges negatively, whereas positive moods can affect exchanges positively.

Affect scholarship continues to grow within psychology and other sociological disciplines (Cromby, Willis, & Martin, 2016). The psychology of social interactions can be examined within employment-based relationships. The mood one brings to work can be influenced by a myriad of work-related matters. Of course, one’s mood can also be significantly predisposed by home life as well. Researchers have seen the value in exploring affect theory in relation to motivation at the workplace. Not surprisingly, studies seem to indicate that autonomous motivation predicts positive affect, whereas lack of motivation seems to lead to negative affect (Gillet, Valleranc, Lafreniere, & Bureau, 2013). Motivation represents an essential aspect of job embeddedness and it will be discussed further below. Also, how mood influences social links in both contexts signifies a critical point that will be explored further.

The generalized mind refers to those areas of one’s mental life that are shared by all humans (Martin, 2013). This mere mentality or generalized mind can be useful for establishing a baseline to work within psychological research. These baselines create essential presuppositions in affect theory. Martin (2013) states there exist many different varieties of affect theory. While discussing all the variations of affect theory lies beyond the scope of this current undertaking, it is nevertheless important to note the contributions affect researchers have made to the literature in a myriad of psychological contexts, including job attachment theories. Cifor (2016) says that
emotions align us with some and separate us from others to build, sustain, or break down communities.

Darwin classified emotions into three categories (Dharwadker, 2015). Basic emotions such as fear and rage characterize the first category. The second category contains more complex emotions such as jealousy and pride. The last category of emotions is more intellectual containing such emotions as excitement, curiosity, and dread. There stands a large void left between emotions felt and emotions expressed at the workplace (Soni, 2017). People conceal emotions to meet expectations in employment situations. Furthermore, people conceal emotions in a variety of contexts outside of work as well.

**Job Satisfaction**

Job satisfaction serves as another forerunner to job embeddedness theory (Mitchell et al., 2001). There remain essential contrasts and distinctions between the two theories. The long line of job satisfaction studies was concerned mainly with why people leave their jobs, whereas job embeddedness is concerned with why people stay. Hoppock (1935) conducted one of the first salient studies in job satisfaction, which has been cited over 4,000 times according to Google Scholar. The original research defined job satisfaction and developed a survey instrument that measured 23 factors including income. Since this study, job satisfaction has exploded in psychology and job attachment literature. Liberty University’s digital commons shows several pages worth of recent dissertations conducted on job satisfaction. Liberty stands as an example of only one university, which highlights the popularity of this research. The literature on job satisfaction is overwhelming. However, the next few paragraphs will examine some of the contemporary directions researchers have taken this popular attitudinal measure in employment.
This discussion is eminently helpful because job embeddedness is just as popular and has taken many of the same paths.

It may be appropriate to begin with a basic definition of job satisfaction, as it is currently understood. Job satisfaction is a set of emotions, feelings, or attitudes toward one’s work environment (Alonderiene & Majauskaite, 2016). Many of the current studies are holding to Locke’s (1976) working definition of job satisfaction, which defines job satisfaction as a positive emotional state created by one’s job or job experiences (Sayadi, 2016). Implicit in this definition is the salience of both feeling and thinking (Locke, 2010). Job satisfaction studies became very popular when researchers started classifying it as an essential component in one’s quality of life (Burchell, Sehnbruch, Piasna, & Agnieszka, 2014). Job performance, turnover intentions, and extra-role behaviors are all critical consequences of job satisfaction (Benazic & Ruzic, 2013). There have been many survey instruments used to measure job satisfaction over the years. A discussion of these measures is also beyond the scope of this undertaking. The next few paragraphs will briefly examine current job satisfaction literature in the discipline of education.

Researchers have conducted job satisfaction studies at every level of education. For example, one recent study found that elementary school teachers, who were part of a balanced goal-oriented group, showed higher rates of job satisfaction (Chung et al., 2016). Another study found burnout was a negative indicator of job satisfaction for senior high school teachers (Skaalvik & Skaalvik, 2017). Job satisfaction was not predictive of faculty participation at faith-based colleges in another recent study (Metheny, West, Winston, & Wood, 2015). Brown et al. (2016) determined a large portion of community college professors’ job satisfaction stems from social justice-related issues. One study indicated high job satisfaction levels among professors with a Ph.D. when higher wages and less working hours were granted (Escarﬁbul & Afcha,
Researchers have used charter schools (Roch & Sai, 2017), vocational schools (Colakoglu & Atabay, 2014), and even online professors (Hoekstra, 2014) for job satisfaction research. There is no shortage of studies on job satisfaction in education. Job satisfaction surveys are extremely popular across many disciplines and employment contexts.

Despite its popularity, job satisfaction research still has room to grow. For example, a recent study examined the role that age and tenure played on job satisfaction (Dobrow, Shoshana, Yoav, & Liu, 2016). As people accrued additional tenure, their satisfaction decreased. However, as people got older and changed employment organizations, their satisfaction increased. Further longitudinal studies across longer time frames need to be conducted to replicate the above findings. There are currently several job satisfaction surveys in use. Spector (1985) developed an instrument that is still widely used. The original 74 items were reduced to a 36-item scale. The instrument was recently found to be a valid and reliable tool to distinguish levels of job satisfaction (Batura, Skordis-Worrall, Thapa, Basnyat, & Morrison, 2016). The Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquist, 1967) is also still in use. However, the drawback to job satisfaction surveys is that they are concerned more with why people leave their places of employment. Job satisfaction theory was and is a contributory ancestor to job embeddedness, which is focused on why people stay at their places of employment.

**Employee Retention**

Job embeddedness helps predict employee retention (Holton & O’Neill, 2004; Lee et al., 2004). Examining how organizations can recruit and retain their best employees is very important to administrators. In higher education, it is particularly important to maintain a quality professorate. This group of professionals is burdened with training and educating future
generations of community leaders. Employee retention research has centered on rewards, recognition, and respect (Kundu & Lata, 2017). Retention is especially important when it comes to those who are highly talented and possess special or unique skills (Bibi, Pangil, Johari, & Ahmad, 2017). Therefore, employee retention theory may be of particular importance to the academy in that most disciplines require terminal degrees and expert qualifications. Employee retention will be examined from its early research and then discussed from more recent empirical studies within higher education.

Employee retention is closely related to job embeddedness in that it examines why people stay at their places of employment. The writer begins with a basic description of employee retention. Sheridan (1992) conducted one of the earliest consequential studies in employee retention. The research has been cited well over a thousand times according to Google Scholar. The first study of its kind that examined human resources retention from a macro perspective, Sheridan’s (1992) study observed that interpersonal relationships appeared to be more important than work-task values. In other words, organizational culture seemed to be a more significant factor in retention than the work itself. Employee retention refers to the retention of talented or high potential employees who the organization has identified, and who are the focus of talent management (Narayanan, 2016). This straightforward working definition is helpful in conceptualizing employee retention. Some of the factors of retention will now be discussed.

Ramlall’s (2004) landmark study examined the factors associated with employee motivation and their influence on retention. He found support in the literature for retention in the motivation theories of expectancy, equity, need, and job design. The main finding in Ramlall’s (2004) study was that by implementing the research-based initiatives in retention, businesses could use motivation to reduce turnover. A supportive work environment and organizational
engagement are linked to employee retention both directly and indirectly (Kundu & Lata, 2017). Turnover intention and retention are often studied together. Further research is needed in this area to examine job embeddedness apart from intention to leave (Borah, & Malakar, 2015). Intention to leave will be discussed more in depth in the next section. The totality of job attachment literature must be studied to gain a thorough understanding of what causes an employee to stay or to leave. Employee retention is only one such antecedent to job embeddedness research.

Higher compensation and promotional opportunities remain of the utmost importance when considering faculty retention at institutions of higher learning (Bibi et al., 2017). One study showed about a third of those sampled were considering quitting their current institution, and compensation was the deciding factor (Theron, Barkhuizen, & Du Plessis, 2014). Tuition waivers for dependent students may also be a significant retention factor (Spencer, Gevrek, Chambers, & Bowden, 2016). Size of the organization, nature of the job, nature of the business, supervision levels, location of the area, current work environment, and incentives all impact turnover (Sandhya & Kumar, 2014). Researchers continue to study employee retention across many disciplines and many contexts. The current literature in retention for higher education shows compensation as a significant factor. However, the work environment or organizational culture is also a leading consideration (Bibi et al., 2017).

The Sheridan (1992) study, which changed how organizations looked at employee retention, showed that organizations must balance the funds invested in retention as compared to the cost of replacement. In other words, since it is extremely costly to replace highly regarded employees, organizations should consider investing in employee retention strategies. Employee retention is the fundamental process by which organizations attempt to prevent their best
employees from leaving (Aruna & Anitha, 2015). Retention strategies must be part of every aspect of operations because retention is crucial to the organization’s bottom line (Cloutier, Felusiak, & Pemberton-Jones, 2015). Aligning personal values and organizational duties can also help support employee retention (Inabinett & Ballaro, 2014). These and many other practical tools can be implemented to cause a positive effect on retention. The next section will address intention to leave.

**Intention to Leave**

Intention to leave represents another attitude in the job attachment literature with a direct nexus to job embeddedness. The higher education literature remains rich with study in this area. Because the current study will apply job embeddedness to higher education, it is beneficial to examine intention to leave within this context. Intention to leave and intention to stay are many times used to describe the opposites of the same phenomena. However, studies have shown intention to leave is an entirely different construct than intention to stay (Nancarrow, Bradbury, Pit, & Ariss, 2014). Therefore, it is important to examine exactly what is being measured with intention to leave surveys. Johnsrud and Rosser (2002) conducted one of the most important studies within the higher education context involving intention to leave. This article is the third most highly cited article regarding intention to leave according to Google Scholar. The authors delineate the differences between actual and intended faculty turnover. Intention to leave is yet another construct that grew out of the turnover literature.

Smart (1990) was one of the first studies to examine the intentionality aspect of turnover cause in higher education. He identified a four-variable model to explain turnover. The first variable was individual and institutional characteristics such as career age, gender, marital status, tenure, research time, organizational decline, and campus governance. The second variable was
contextual and work environment measures such as governance participation, governance influence, research productivity, and salary. The third variable centered on dimensions of faculty job satisfaction, such as organizational satisfaction, salary satisfaction, and career satisfaction. A recent study showed that high job satisfaction indicated a teacher’s intention to leave is lower (Vekeman, Devos, Valcke, & Rosseel, 2017). However, since a preceding section discussed job satisfaction in some detail, there is no need to expand upon it here. And finally, intention to leave the current institution was the last variable. One significant contribution of this study was that intention to leave was identified as a complex series of events based on individual characteristics, institutional attributes, work environments, and job satisfaction. Also, Smart (1990) identified both similarities and differences in causes for tenured and untenured faculty’s intentions to leave.

Intention to leave literature has branched out into several directions. It may be beneficial to briefly discuss these new directions because these approaches are similar to, and in many cases directly related to, job embeddedness research. The literature has not sufficiently addressed new employee intention to leave, and further studies have recently begun to examine it within the purview of retention research (Tao et al., 2017). Another recent study found a lack of promotional opportunities decreased morale, which led to a higher intention to leave (Boag-Munroe, Donnelly, Van Mechelen, & Elliot-Davies, 2017). The utility of this theory for human resources has been repeatedly verified. For example, enhanced human resources practices have been shown to lower the intention to leave among employees (Kundu & Gahlawat, 2016). Job embeddedness levels can help predict intention to leave, as has been shown through workplace ostracism research (Lyu & Zhu, 2017). Social networks seem to moderate intention to leave when organizations fail their employee obligations (Heffernan & Rochford, 2017). Another
recent study in education examined the role of compensation for high school principals (Tran, 2017). Principals who were less satisfied with their pay had higher intentions to leave. This finding is consistent with intention to leave across many pay dissatisfaction settings (Shields, Scott, Bishop, & Goelzer, 2012). There are some notable exceptions, such as employment at nonprofit organizations (Treuren & Frankish, 2014).

As discussed above, intention to leave is not a polar opposite of intention to stay. Before the original job embeddedness study, the job attachment literature was centered on job satisfaction and organizational commitment when examining voluntary turnover (Mitchell et al., 2001). The questions of why people leave and why people stay are paramount if only based on the sheer cost of turnover (Borah & Malakar, 2015). Under this subheading, we have examined intention to leave as a precursor to job embeddedness and also surveyed the current literature landscape in this area. Some seven years before developing job embeddedness, Lee and Mitchell (1994) studied intention to leave using the Dutch Turnover Questionnaire by Van Veldhove and Meijman (1994). A significant finding was that intention to leave was related to fit and compatibility criterion rather than subjective expected utilities. This study was instrumental in helping the authors develop an unfolding model that eventually evolved into job embeddedness in 2001. As discussed in the prior section, there is a large literature gap in applying job embeddedness in education employment generally, and an even wider gap exists in higher education. The next section will dissect the three critical components of job embeddedness. The discussion on the job embeddedness triad will cap off the contributing theories section of this literature review.
Job Embeddedness

Thus far the theoretical framework section of this chapter has briefly discussed the growth of job embeddedness and the theories involved in its conception. While far from exhaustive, it was important to cover some of the prominent theories that both demonstrate support of and interact with job embeddedness. Embedded figures, field theory, social exchange theory, affect theory, job satisfaction, employee retention, and intention to leave research were all discussed in their roles as foundational antecedents and supplementary support theories of job embeddedness. Job embeddedness has expanded astronomically since the initial research by Mitchell et al. (2001), which developed this relatively new theory. Current job embeddedness research will be discussed further in the next section under related research. However, this section will concentrate on a more in-depth look at the original study and each of its critical components. By highlighting the most vital aspects of job embeddedness theory, the utility of job embeddedness as a theoretical framework will become more evident. These preceding headings firmly establish the embeddedness supporting theories.

Job embeddedness serves as an amalgamation and also a culmination of 100 years of the most significant research in job attachment theory. Furthermore, a closer look at the critical aspects of the theory will show why it has been both popular and successful. Below, Figure 2 visually depicts the three critical aspects of job embeddedness. Researchers developed the job embeddedness construct over a period of 10 years by refining the traditional turnover theories (Hulin, Brett, & Drasgow, 2002). The three critical aspects of job embeddedness involve links to other people or activities, the extent to which their jobs and communities fit with other aspects of their life spaces, and the perceived sacrifice experienced if they quit (Mitchell et al., 2001). All three aspects apply to both on- and off-the-job environments.
For example, links to other people are just as relevant at work as they are at home. The researchers define links as the strands that connect an employee in a social, psychological, and financial web with groups of people at work and in the community. The higher the quantity of links, the more an employee becomes stuck in their jobs. The authors point to Maertertz, Stevens, Campion, and Fernandez (1996) and Prestholdt, Lane, and Mathews (1987) to establish the links aspect of job embeddedness. Social integration is a term coined by O’Reilly, Caldwell, and Barnett (1989) to describe on-the-job links. The researchers also mention the Abelson (1987) study that examined the variables of on- and off-the-job links. And lastly, they reference the Cohen (1995) study, which examined how hobbies and church-related activities influence organizational commitment.
Fit refers to the perceived comfort an employee has with the organization and within the off-the-job environment (Mitchell et al., 2001). Studies indicate that job satisfaction, organizational commitment, and job performance are associated with organizational fit (Mackey, Perrewe, & McAllister, 2017). Organizational fit can have many practical implications for organizations. For example, one study showed that investment in personal growth and development above and beyond organizational performance could lead to an increased commitment and lower levels of absenteeism and turnover (Biswas & Bhatnagar, 2013). The idea of fit applies to a vast area rather than just one specific process or program. Fit refers to the entire individual, group, or organizational frameworks that are consistent with the needs, goals, demands, objectives, and structures of another (Cunningham & Kempling, 2011). Therefore, on- and off-the-job fit is not always easily modified or fostered by organizations.

Sacrifice represents the third psychological component of job embeddedness. The perceived sacrifice one might experience by leaving proves significant for work and home environments. Mitchell et al. (2001) defined it as the perceived cost of material or psychological benefits one must forfeit by leaving his or her job. At work, the sacrifice could be salary or compensation through raises, retirement, or health benefits. Another example of sacrifice might be giving up strong relationships or bonds with peers (Chetty, Coetzee, & Ferreira, 2016). Off-the-job sacrifice might involve learning a new geographical area or making new friends. In the higher education employment context, an example of sacrifice might be giving up the sabbatical earned after six years of employment at many universities (Mitchell et al., 2001). Relocation is a typical sacrifice that affects an employee’s off-the-job embeddedness because it breaks community links (Reitz, 2014). A recent study suggested the perception of organizational
sacrifice predicts life satisfaction (Ampoto, Coetzer, & Poisat, 2017). Furthermore, both on- and off-the-job embeddedness were positively related to life satisfaction.

Table 1

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This section has briefly examined links, fit, and sacrifice as the three critical aspects of job embeddedness theory. Each of these components has been developed by turnover literature over a period of many years. Mitchell et al. (2001) relied on this triad from the job attachment literature to develop this new construct. They argued that this new development was critical for three reasons. First, job embeddedness adds clarity to the long list of work and non-work factors that influence one’s attitude toward staying at a place of employment. Second, job embeddedness is conceived of as a “heterogeneous totality of forces” (Mitchell et al., 2001, p. 1116). And lastly, job embeddedness may have even stronger effects for professions where changing jobs usually means changing locations, such as in the case of higher education faculty.

To this point, the theoretical framework and theoretical foundations have been established, and the critical aspects of job embeddedness theory have been briefly described. Table 1 offers a visual summary of the evolution of job embeddedness theory. The next section, which discusses the related literature, will be broken down into C& CJ professors as well as the utility and practicality of job embeddedness theory within the context of the academy.

**Related Literature**

The related literature section will examine the two main components of this research project: C& CJ professors at public community colleges and state universities, and recent publications on job embeddedness. The utility of job embeddedness theory in the higher education context will also be surveyed briefly. This section of the chapter will both synthesize and assess current job embeddedness research while highlighting the widening gap that exists in applying this theory to higher education as a workplace.
Criminology and Criminal Justice Professors

The criminal justice system in the United States is under constant scrutiny. The primary focus of the system is to identify, apprehend, charge, and punish offenders (Barnes, 2014). While this modern focus is inclusive of specific deterrence theory, one should also consider general deterrence theory as an additional focus of the system. Police departments, courts, and prisons garner almost continuous mainstream media coverage. The system is also the subject of ongoing governmental policy reform and increased advocacy from special interest groups. Whether it is a police-involved shooting such as in Ferguson Missouri, a prison inmate suicide such as Aaron Hernandez, or the parole hearings of Orenthal James Simpson, the criminal justice system is at the fore of public interest. Prison overcrowding is also a significant concern. The criminal justice system is confining over 2.3 million people in various federal, state, local, and military facilities (Wagner & Rabuy, 2017). The criminal system employs many professionals including attorneys, judges, correction officers, police officers, probation officers, and so forth. A single human error in this field may be the subject of news cycles for months, and civil litigation for years. Therefore, quality pre- and post-employment education for this multitude of civil servants should be a serious endeavor.

The quality of education received by those in the criminal justice related fields is as essential now as it has ever been. Most C&CJ graduates will enter fields that involve a great deal of discretion and self-directed work (Cundiff & Flinchbaugh, 2017). Undergraduate C&CJ courses teach students how to positively affect their communities, while still earning respect in academia (Schanz, 2013). The future decisions made by recipients of C&CJ degrees may involve the loss of liberty and even the loss of life in many cases. The only other academic disciplines that can make this claim are perhaps the schools of medicine or the military
academies. Many of these students are called to make life-and-death decisions in the regular course of their employment. One significant distinction is that many of these criminal justice system positions require only an associate’s degree or equivalent credits as prerequisites, while some criminal justice positions require no college degree or credits at all. Therefore, the system questions the benefits of a college education in these cases.

Those who possess C&CJ degrees hold favorable perceptions of their education (Schanz, 2013). Unlike other professions such as medicine, nursing, teaching, and social work, there is no national certification credential available for entry-level criminal justice workers (Lindsay & Greenberg, 2013). Many positions require higher-level degrees such as lawyers, medical examiners, and forensic psychologists. Unfortunately, studies show that those with graduate level or terminal degrees do not desire to work within a criminal justice agency (Gabbidon & Higgins, 2012). These examples illustrate how vitally important quality teaching and education in C&CJ is, especially at the lower levels.

College professors account for a vital and highly influential component of higher education. They are critical in that they influence the educational framework from which students will ultimately draw upon in making future decisions. It is essential for professors to find an effective way to communicate complex ideas to undergraduates in a way that avoids “pedagogical dogmatism” (Heffernan, 2017, p. 126). There is much more to education than curriculum and accreditation. Unfortunately, students’ professor evaluations are driving the current grading policies in many undergraduate C&CJ courses (Johnson & Crews, 2013). Academic leaders should consider these issues when assessing the body of knowledge and skills obtained by earning a two-year or four-year degree in criminology or criminal justice from their respective institutions.
As discussed above, many positions in the criminal justice system require little education. Therefore, there is an even greater emphasis on the quality of education received at lower levels. Unfortunately, the quality of education in many C&CJ programs is currently suspect. Colleges and universities are doing more with fewer resources, resulting in a lower quality of education (Lindsay & Greenberg, 2013). Community colleges are more affordable and open to a much broader range of students. Cost, teacher accessibility, and class size were three themes identified in a recent phenomenology of criminal justice students’ experience at a community college (Monk-Turner, 2016). Technology has challenged the conventional model of higher education delivery and shifted the entire paradigm. Online courses are becoming more popular, and universities are using these distance degrees to expand their potential student base. However, studies have shown that blended programs achieve significantly higher student motivation and learning outcomes (Tseng & Walsh, 2016). Regardless of the delivery format, recruiting and retaining quality professors can be challenging in this contemporary competitive market that has all but erased geographical limitations.

Additional for-profit and nonprofit institutions are springing up to meet the demand for online higher education. Universities are in direct competition for researchers and instructors on a global scale (Abramo, D’Angelo, & Rosati, 2016). This competition has turned professors into a high demand commodity for C&CJ departments nationwide. C&CJ degrees, very popular in the United States, remain in demand despite the recent reductions experienced by other academic disciplines (Pikciunas, Cooper, Hanrahan, & Gavin, 2016). In fact, criminal justice degrees are among the most awarded degrees in the United States (Sloan & Buchwalter, 2017). The demand leaves human resources departments to consider the best practices for recruitment and retention of a qualified professorate. As discussed above, many criminal justice practitioners do not move
beyond the community college level. Therefore, community colleges are very much in the same arena competing for qualified professors.

As the higher education model is shifting to this new paradigm, tenure-track positions are steadily declining (Carey, 2012; Pikciunas et al., 2016). Also, the recent reduction in government appropriated research funding for state universities is a chief reason for the reduction in tenure-track positions (Yang & Webber, 2015). Universities are forced to seek alternative means to fill the void created by fewer tenured professors. Adjunct or part-time professors are hired to carry the teaching load at a considerable cost savings to the university (Diehl, 2016). Colleges are using as many as 75 percent adjuncts, earning an average of $20,000 to $25,000 a year, to carry the brunt of the teaching load (Dorfeld, 2015). These instructors are paid significantly less than full or associate professors, have no benefits package, and are the first to be laid off (Alarid, 2016; Crawford, Burns, & McNamara, 2012). Institutions can increase job satisfaction for adjuncts by offering professional development opportunities (Rich, 2017). However, professional development may not be enough. Adjunct professors often work for several institutions in hopes of eventually obtaining a tenured position. However, in some cases, these instructors have full-time jobs in the field. The effect on education created by shifting from a core of professional educators to part-time, inexperienced, and less educated instructors on such a large scale is still unknown (Hutto, 2017).

Research is one significant area of distinction between community colleges and universities. Community colleges by definition are not research institutions. Therefore, those professors with aspirations to publish will not get much assistance from their community college. This distinction limits the promotional opportunities at these lower level institutions. Promotional opportunities in higher education are often linked to one’s peer-reviewed
publications (Crawford et al., 2012). Therefore, community college professors are limited to department chair positions or institutional administrative leadership positions as the only viable opportunities for personal development or improvement.

Promotional considerations raise a compelling dynamic for further study into the long-term fit or compatibility with the intuition. Salary appears to be an influencing factor in professor retention (Nagowski, 2006), but it is less critical to those who are persuaded more by other cultural influences (Luna-Arocas & Tang, 2015). Adjuncts at community colleges receive as little as $1,000 a class, which in some cases can equal out to less than $3 per hour worked, with no benefits (Jolley, Cross, & Bryant, 2014). With such little compensation, one must question the motivation that causes a competent and highly qualified professor to remain at these institutions. The quality of education is at risk when this becomes the rule rather than the exception.

**Job Embeddedness**

As summarized in chapter one, job embeddedness is a relatively new construct when compared to other job attachment theories. Mitchell et al. (2001) noted that before 2001 the abundance of organizational retention research concentrated on why people leave their jobs, whereas job embeddedness seeks to understand why people stay at their places of employment. The original authors relied on embedded figures and field theory as a conceptual framework for developing this triad of psychological entanglement. The research identified fit, links, and sacrifice as the primary indicators of job embeddedness. Since the original study, job embeddedness has become very popular in organizational management literature. Google Scholar, for instance, returned over 22,800 results in the last five years alone. However, very little research on embeddedness has been conducted in the field of education generally or in
higher education specifically. Perhaps one reason is that the academy does not like to study itself and will rarely study itself as a workplace (Thrash, 2012). Job satisfaction literature in the disciplines of C&CJ is even more limited (Gabbidon & Higgins, 2012).

With the recent explosion of research in job embeddedness theory, however, it is both timely and necessary to examine the construct’s utility in higher education. Recently, researchers applied job embeddedness theory to nursing (Kim, Kim, Kim, Yu, & Lee, 2014), salespeople (Darrat, Amyx, & Bennet, 2017), hotel employees (Ferreira, Martinez, Lamelas, & Rodrigues, 2017; Karatepe, 2013), manufacturing and leadership (Collins & Mossholder, 2017), and migrant work (Halvorsen, Treuren, & Kulik, 2015) as discussed by this author in a past work (Bowser, 2017). The foundation was laid above for why recruitment and retention in C&CJ programs remain so essential. Additionally, voluntary turnover can be extremely costly for institutions (Afzalur Rahim, Civelek, & Liang, 2015). Quality of instruction or lack thereof represents one real concern for administrators, but the financial burden experienced when professors separate from their institutions is equally concerning.

Those with lower levels of embeddedness may separate by retirement or accept a position at a competing college or university. All three job embeddedness factors play a role in one’s retirement decision (Bamberger & Bacharach, 2014). Retention and recruitment play a major role in many employment contexts beyond the field of education. Furthermore, studies show that leaders who have low levels of job embeddedness are likely to seek out alternative job opportunities (Welty-Peachey, Burton, & Wells, 2014). A significant number of community college leaders in the United States have retired in recent years or are eligible for retirement in the near future (Hilley & Morris, 2016). Filling these positions will prove quite costly. Institutions must exercise great care in retaining quality leadership and filling vacancies with
comparable and suitable replacements. Leadership highlights one prominent influence in job embeddedness that can have either a positive or negative impact (Karatepe, 2014). For example, leaders who foster fairness can improve employee behavior and encourage embeddedness (Collins & Mossholder, 2017). While it may seem obvious how much power and influence leaders hold over embeddedness, it is necessary to show how the literature supports such an assertion.

Leaders can improve an employee’s embeddedness by using training, empowerment, and rewards (Karatepe & Karadas, 2012). Also, studies indicate that ethical leadership relates to job embeddedness (Ferreira, 2017). There remains much more involved in the engagement of this theory than just employee retention. Leaders are always concerned with strategies that will assist in the retention of qualified personnel. However, as an added benefit, job embeddedness theory has also been used to explain why people perform (Karatepe, 2014; Lee et al., 2004; Tian et al., 2016). Therefore, job embeddedness is useful far beyond human resources departments. Academic leaders who familiarize themselves with embeddedness strategies may be able to improve both faculty retention and productivity.

Increasing employees’ job embeddedness in any organization can be accomplished by focusing on specific strategies that address the fit, sacrifice, and links to both the community and the organization. Programs that offer home buying assistance, build state-of-the-art recreational facilities, or host company socials exemplify intentional off-the-job embeddedness strategies (Reitz, 2014). Academic leaders might propose research projects that take advantage of a professor’s unique skill set. Leaders who assist their subordinates in adopting a philosophy of importance and worth to the organization are refining their fit to the university (Morganson, Major, Streets, Litano, & Myers, 2015). In other words, micromanaging is not an effective
embeddedness strategy. The college or university can emphasize professors’ standing and status by placing them in positions of increased responsibility. Perhaps placing them on a path toward an eventual leadership role in the department could help increase their perception of self-worth. Sometimes even the consideration for a promotional opportunity can improve one’s self-worth or morale. The potential of earning tenure has served as such a path in the past.

The current technological culture in higher education can be intimidating to some in the generation known as digital immigrants. Many current seasoned professors did not grow up surrounded by these technological advances (Christensen, Horn, & Johnson, 2011). As technology makes leaps and bounds in some cases, professors have not. Lack of adaptation can affect one’s level of embeddedness at a cutting-edge university. Organizations that push their employees too hard to learn new technology push them into finding another job (Charlier, Guay, & Zimmerman, 2016). Some professors, though well-published and outstanding instructors, cannot adjust quickly to a fast-changing technological environment. In these instances, perhaps a more understanding approach could help their embeddedness. As with many other areas, employees are best served when treated as individuals rather than groups. Digital immigrants should be addressed on a case-by-case basis with care and additional training as needed. Additional training and career development can lead to higher levels of job embeddedness (Karatepe, 2014).

The academy features traits that are unique and distinctive from other places of employment. Takawira, Coetzee, and Schreuder (2014) conducted one of the only known published studies that applied job embeddedness theory to the faculty of a university. The participants of the study were professors, lecturers, and support professionals from a South African University Department of Economic and Management Sciences. This study, which used
the Mitchell et al. (2001) instrument, compared work engagement and turnover intention results. The study showed a significant relationship between the participants’ job embeddedness and work engagement. Also, those who were highly engaged showed less of an intention to leave, the overall findings suggesting that the participants with high job embeddedness and work engagement had lower turnover intentions.

The Takawira et al. (2014) study is especially relevant to this current undertaking in that it offers suggestions on advancing a professor’s embeddedness. Academic leaders should encourage a positive emotional climate that targets both individual and organizational health. The emotional climate highlights the elements of affect theory (Lawler, 2001) found in job embeddedness. The theoretical framework section of this literature review already discussed affect theory in some detail. Also, the researchers suggested professional development as salient method for investing in embedded professors (Takawira et al., 2014). This professional development represents the same type of development suggested by Karatepe (2014), also discussed above. Leaders can help professors by setting goals, pointing out pitfalls, and offering general guidance (Takawira et al., 2014). Sabbaticals and flexible work schedules are attributed to the work of Mitchell et al. (2001). Many of the suggestions in the study relate to the golden rule, that is, if academic leaders treat their professors well, they will want to stay and work hard for the college or university.

Another interesting dynamic in comparing off-the-job embeddedness at community colleges and state universities involves their geographical locations. In the state used for the current study, community colleges are generally located in different types of geographical locations as compared to state universities. In many cases, the state universities are in rural areas, whereas the community colleges are situated in more urban areas. While there are some
notable exceptions, this distinction could have an impact on off-the-job embeddedness. Organizations should not restrict their efforts in facilitating employee embeddedness to merely on-the-job initiatives. Off-the-job embeddedness in some cases is even more critical. Dawley and Andrews (2012) note that organizations that host family-oriented outings and give support for local community activities help embed their employees. Also, family-friendly work policies have been shown to increase job satisfaction and organizational commitment (Bae & Yang, 2017).

Treuren and Halvorsen (2016) suggest that organizations should encourage relationships and improvement of the quality of life issues as a way of nurturing employee embeddedness. The work-life balance is an interesting element in the job embeddedness literature. Studies show that work-life balance does not directly affect turnover; however, it does seem to embed the employees in the organization (Thakur & Bhatnagar, 2017). Therefore, academic leaders may indirectly reduce turnover by helping professors establish a healthy balance of work and rest cycles. Department leaders can ensure their professors do not have so many classes and research responsibilities that they are not spending quality time with their families. Negative emotion is tightly tied to the “properly cyclical circadian rhythms” (Peterson, 2018, p.18). Therefore, an abnormal routine of work and rest cycles can adversely affect emotions. Pushing additional classes may help the university’s bottom line in the short term, but the expense of not addressing embeddedness could be even costlier in the long run. While work-life balance was found to promote more job embeddedness than fun at work in some studies, the antithesis has been shown in other studies (Tews et al., 2015). However, what is clear is that work-life balance does have some impact on embeddedness. This finding is reflective of why there are both on- and off-the-job subfactors built into the construct.
Sometimes job embeddedness can have an adverse effect on an organization. Employees who have a low organizational trust and participate in workplace deviance can harm the organization when they become embedded (Marasi et al., 2016). An example of this might be the lazy, ineffective professor who has achieved tenure. In other cases, union membership may protect ineffective instructors from losing their jobs. The apparent caution here is to recognize that universal embeddedness is not always a positive attribute. Workplace deviance may be managed by creating an organizational milieu where leaders understand motivation and satisfaction among employees (Darrat et al., 2017). Also, in some cases, job embeddedness can reduce the potential for workplace deviance (Avey, Wu, & Holley, 2015). Higher education is one context where merely managing workplace deviance is not an acceptable or viable option. Perhaps conflict resolution strategies could assist the academic leader in managing the professor who feels stuck in an adverse employment situation. There is often a myriad of possible short-term administrative quick fixes for workplace deviance.

Unfortunately, in the case of the disgruntled embedded tenured professor, there may be no favorable long-term solutions other than managing the problem. Being stuck in an unwanted job situation is not good for the organization or the employee, since negative embeddedness can cause lack of sleep, health concerns, and emotional exhaustion (Allen, Peltokorpi, & Rubenstein, 2016). Negative embeddedness represents one example why Tian et al. (2016) stressed the importance of considering embeddedness from even before the date of hire. With a thorough background investigation, interview, hiring processes, and an extended probationary period, personnel issues should manifest themselves long before embeddedness takes place. Departments should consider much more than just presentations at conferences and publication records when considering tenure and promotions. A college or university that has to manage
workplace deviance from an embedded professor may also seek the consultation of the solicitor or legal services.

Summary

This chapter began with an introduction to the theoretical framework on which job embeddedness hangs. Since job embeddedness is a relatively new construct, the foundational research is readily available. Unlike any published work to date, this undertaking briefly examined the theories that inspired job embeddedness. Mitchell et al. (2001) offered that job embeddedness was created based on the concepts of embedded figures and field theory. Therefore, this study began with a brief assessment of these underlying theories. Social exchange theory, affect theory, job satisfaction, employee retention, and intention to leave were all discussed as well. These theories form the underlying framework that supports our understanding of the job embeddedness construct and related instruments. After examining these foundational theories, this chapter then shifted to a discussion of the related literature. The C&CJ programs at community colleges and universities were examined through the lens of the purpose statement. The lack of meaningful research concerning recruitment and retention at this level of education and within the C&CJ context is flagrant. Furthermore, the literature gap in this context highlights the importance of this dissertation. The most recent job embeddedness research was synthesized and discussed concerning its applicability to this study.
CHAPTER THREE: METHODS

Overview

This chapter will describe the various methods used in this study. The dissertation employs a causal-comparative design. The first section of this chapter will describe the design and then offer the rationale behind why it is most appropriate for this study. The second section will describe and discuss the research questions and the null hypotheses. The third section of chapter three will discuss the participants and the setting of the study. The job embeddedness questionnaire (see Appendix B) developed by Clinton et al. (2012) is the only instrument utilized in this study. The instrumentation section will include the instrument’s content, origin, and appositeness for this undertaking. The procedures section includes information about IRB approval, eliciting participation for the study, pilot study results, the administration of the procedures, data gathering, and the methods used for data recording. The data analysis section will discuss the statistical analyses used to investigate the research questions and the justification for their use.

Design

This dissertation uses a causal-comparative design in order to test the null hypotheses. A causal-comparative research design examines how groups differ on a variable of interest and compares them on one or more dependent variables (Creswell, 2015). Furthermore, ex-post facto research refers to the observation of naturally occurring variations in variables (Gall, Gall, & Borg, 2007). Explanatory survey research requires multivariate analysis (Bayens & Roberson, 2010). Attitudinal questions are most appropriate for focusing on the ways people evaluate or think about issues (Crozby, 2014). There exist three popular types of questions on an attitudinal survey instrument (Creswell, 2015). The most popular types of questions include background or
demographics questions, individual attitude questions, and individual behavior questions. For this study, the dependent variables are on- and off-the-job embeddedness. Job embeddedness measurements use questionnaires to enable quantitative analyses. The original study by Mitchell et al. (2001) developed the first attitudinal measure of job embeddedness. Lee et al. (2004) worked to improve the theory as well as the job embeddedness instrument. Another salient study enhanced this research by introducing a global instrument that consisted of only seven questions (Crossley et al., 2007). However, this study possessed some limitations that will be considered below under instrumentation. Clinton et al. (2012) developed an improved measure for job embeddedness by introducing two, six-question instruments to be used in tandem for both on- and off-the-job embeddedness. This dissertation research used the Clinton et al. instrument.

In the countless studies conducted using job embeddedness theory, attitudinal questionnaires were the preferred instrument of measure in order to quantify data. Surveys are the typical research method for measuring attitudes in educational research (Joyner, Rouse, & Glatthorn, 2013). Surveys are economical, quick and easy to administer, participants can remain anonymous, and responses can be unbiased (Creswell, 2015). The questionnaire is advantageous based on the standardization and the highly structured design that enables a quantitative methodology (Gall, Gall, & Borg, 2007). The questionnaire is much more convenient for the researcher as compared to personal interviews (Crozby, 2014). The questionnaire assisted the researcher in examining the research questions of possible differences in job embeddedness across subjects and groups from a quantitative perspective. Quantifying data enabled the use of advanced statistical analyses to draw informed conclusions. In fact, quantifying data and comparing it statistically explain the very framework of quantitative research.
Researchers who utilize an online survey tool may significantly reduce the amount of time required to collect data (Joyner, Rouse, & Glatthorn, 2013). Because the data gathered from an Internet-based survey is immediately available to the researcher, the results are similar to other methods (Crozby, 2014). For this study gathering information in person over such a large geographical area would be virtually impossible. The Internet questionnaire format allowed for the data to be gathered in the shortest amount of time feasible. Also, this format limited researcher-based errors. The Internet format is economical as compared to the remittance required for postal-based questionnaires. The web-based survey can be distributed using any of several available web-based programs on the market; however, this study used Survey Monkey (https://www.surveymonkey.com) based on its popularity, security features, and ease of use. The convenience of this format takes advantage of most people’s extensive Internet use (Creswell, 2015). Professors’ daily use of their computers likely increased the return rate. The institutions’ email system provided an effective method of distribution that was convenient, accountable, and economical.

**Research Questions**

The research questions for this study are:

**RQ1:** What difference if any exists in the on-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges or state universities, as shown by the Clinton et al. (2012) attitudinal measure?

**RQ2:** What difference if any exists in the off-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges or state universities, as shown by the Clinton et al. (2012) attitudinal measure?
Hypotheses

The null hypotheses for this study are:

**H₀₁**: There is no statistically significant difference between on-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) as shown by the Clinton et al. (2012) attitudinal measure.

**H₀₂**: There is no statistically significant difference between on-the-job embeddedness scores for Criminology and Criminal Justice professors based on their employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H₀₃**: There is no statistically significant interaction among on-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) and employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H₀₄**: There is no statistically significant difference between off-the-job embeddedness scores for Criminology and Criminal Justice professors based on their school type (community colleges or state universities) as shown by the Clinton et al. (2012) attitudinal measure.

**H₀₅**: There is no statistically significant difference between off-the-job embeddedness scores for Criminology and Criminal Justice professors based on their employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H₀₆**: There is no statistically significant interaction among off-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) and employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.
Participants and Setting

This study surveyed state community colleges and four-year state universities of higher learning in one entire state. The convenience sample drew upon both full-time and part-time C&CJ professors. This study only considered financially-compensated professors. A question in the biographical section of the questionnaire identified online-only professors. All financially compensated faculties in the C&CJ departments were asked to voluntarily complete the Internet-based questionnaire. However, two state universities did not grant permission and did not participate. Also, those who teach at both community college and at a state university were asked to complete one questionnaire at their full-time position. A follow-up email was sent as a reminder to all professors asking if they had not already done so to please consider taking the questionnaire. The questionnaire was completed based on free and voluntary consent with no incentives offered. When participants opened the link the first item they saw was the consent form. They were not able to proceed unless they clicked the “agree” button. In other words, each participant had to read the consent form and accept the conditions in order to continue. No one under the age of 18 was permitted to complete the questionnaire. Participants consisted of a convenience sample of the willing.

The demographics of those involved necessarily varied based on the state’s rural and metropolitan areas. Criminology and Criminal Justice Professors from all public community colleges and state universities in one state made up the population for this study. The C&CJ departments varied in both size and specialty. Specifically, the target population for this study was C&CJ professors at every state university and every public community college in the same state. Data gathering occurred during the beginning of the fall semester of the 2018-2019 school year, after receiving the IRB approval letter (see Appendix E). This study drew upon
participants from the 12 state universities and 14 community colleges in the same state that agreed to participate. These departments employ approximately 260 to 280 professors, and the study had a sample size of 148.

There were 88 invitations sent to state university full-time professors, 28 invitations sent to state university part-time professors, 32 invitations sent to community college full-time professors, and 112 invitations sent to community college part-time professors. The exact population is difficult to estimate for a couple of reasons. First, two state universities declined to participate. Second, many of the part-time professors are used only on an as-needed basis. Although approximately 260 email invitations went out, many of the part-time professors may not have received them if they are not teaching this semester. The consent form (see Appendix A) was page one of the Survey Monkey questionnaire (see Appendix B). There was a web link to the questionnaire in the email recruitment letter (see Appendix D). The researcher sent an email invitation to the professors in the C& CJ departments at every one of these institutions as mentioned above. Participants completed the questionnaire on an entirely voluntary basis, and therefore the participants will be considered a convenience sample.

The sample consisted of 148 professors out of an approximate population of 260-280. The minimum number of participants would need to be 50 in each group for a medium effect size with a statistical power of .7 at the .05 alpha level for a factorial ANOVA for three groups (Warner, 2013, p.522). This study had four groups necessitating a lower minimum per group. There were 47 females and 101 males in the sample. There were 73 professors from community colleges and 75 professors from state universities. There were 72 part-time professors and 76 full-time professors. There were 10 professors who teach exclusively online. There were 115 married professors and 33 single professors. There were 49 professors with less than five years
at the institution and 99 professors with five years or more at the institution. There were 69 tenured or tenure-track professors and 79 non-tenured.

The sample of 148 professors is reasonable for the statistical analysis based on the numbers used in past studies in embeddedness. For example, Allen (2006) employed a job embeddedness instrument to examine a sample of 222 employees in the financial services industry. Holtom and O’Neill (2004) examined the job embeddedness of a sample of 208 hospital employees. The original job embeddedness study, in part, used the questionnaire scores from a sample of 177 grocery store employees (Mitchell et al., 2001). Van Dyk, Coetzee, and Takawira (2013) used a job embeddedness instrument on a sample of 206 medical and IT personnel. Eady (2014) had a sample size of 185 for a dissertation on job embeddedness. Many studies have used much larger sample sizes; however, the instrument and statistics can be effective in the target range for this study. For this current undertaking 148 represents a response rate of about 57%.

**Instrumentation**

The current study used the improved job embeddedness instrument as advanced by Clinton et al. (2012). This research represents the most recent instrument available in the literature. Mitchell et al. (2001) developed the original job embeddedness instrument through their seminal research. The original composite instrument consisted of 40 questions and examined up to 48 causal indicators. Cunningham, Fink, and Sagas (2005) developed a six-item instrument for job embeddedness. Akulli (2015) was the first to utilize the Cunningham et al. (2005) instrument in his dissertation for Michigan State University. There have been several prominent studies to date that have refined job embeddedness instruments. Crossley et al. (2007) developed a seven-item instrument that gained wide popularity. Google Scholar indicated this
article had been cited over 576 times. This instrument is popular because it is a perceptual measure that is internally reliable and valid (Lee & Mitchell, 2014). It is a global, rather than a composite measure, and therefore the length of questioning is significantly less than the original. Felps et al. (2009) developed a 21-question instrument that has been cited over 450 times according to Google Scholar. This Felps et al. (2009) instrument was used recently by Eady (2014) to examine job embeddedness in the aerospace and defense industry for a dissertation.

However, the Felps et al. (2009) questionnaire is still rather lengthy, and the Crossley et al. (2007) instrument has limitations (Clinton et al., 2012; Lee et al., 2014). The seven-item questionnaire fails to measure off-the-job embeddedness directly. Also, the seven-item questionnaire does not clearly identify the links, fit, and sacrifice dimensions. Therefore, Clinton et al. (2012) created a relatively short and theoretically grounded measure of job embeddedness that is both valid and reliable. The measure incorporates the following distinct concepts of job embeddedness: organizational commitment, job satisfaction, perceived employability, and intention to quit.

The new instrument consists of six questions for on-the-job embeddedness and six questions for off-the-job embeddedness (Clinton et al., 2012). High internal reliability exists for on-the-job embeddedness ($\alpha = .90$) and off-the-job embeddedness ($\alpha = .82$), indicating that this new measure consistently measured the same underlying construct. Construct validity was tested using confirmatory factor analysis via LISREL 8.80. The two-factor model showed superior fit ($p < .001$). The testing also showed this instrument has some degree of discriminant validity over related concepts such as affective commitment ($p < .001$), job satisfaction ($p < .001$), perceived employability ($p < .001$), and intention to quit ($p < .001$). The instrument was found
to have convergent validity in its negative relation to intention to quit and perceived employability \((p < .001)\).

Clinton et al. (2012) had missing responses for only 1% of the sample, indicating that the questions were not invasive, and the questionnaire was not too long. However, the new instrument has only been cited 30 times according to Google Scholar. Researchers favor the Crossley et al. (2007) instrument for its seven questions. Also, since Crossley et al. (2007) was published five years earlier than Clinton et al. (2012), it has been used and cited many more times. However, the researchers will be publishing more data from their evolving dataset in the future (M. Clinton, personal communication, July 4\(^{th}\), 2017). The Akulli (2015) study helped further the six-item instrument Cunningham et al. (2009) developed. Furthermore, this current undertaking will help establish the Clinton et al. (2012) instrument. Also, additional research is needed to “better understand the relationship between job embeddedness and its nomological network across different occupational groups and work contexts” (Clinton et al., 2012, p. 116). Applying the instrument to higher education can assist our understanding of job embeddedness utility within this context. Also, the researchers recommend further research in other occupations and geographical locations (Clinton et al., 2012).

There are only 12 questions on the Clinton et al. (2012) instrument. Six questions examine on-the-job embeddedness, whereas six questions examine off-the-job embeddedness. A five-point Likert type scale is used wherein 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Therefore, the lowest possible score is 6, and the highest possible score is 30 on each test. Permission was granted to use the instrument freely in this research project, see Appendix C (M. Clinton, personal communication, July 4\(^{th}\), 2017).
Nominal variables are assigned numbers for quantification purposes but have no real measured value (Lurigio, Dantzker, Seng, & Sinacore, 1997). These are also referred to as categorical variables because they have no quantitative meaning (Gall et al., 2007). The numbers assigned to these variables are merely labels (Warner, 2013). The following nominal independent variables were coded for analyses: (Community College = 1, State University = 2), (Part-time = 1, Full-time = 2). Other biographical information was gathered and listed as part of the study. These demographics were coded as follows: (Online only = 1, Residential = 2), (Male = 1, Female = 2), (Married = 1, Single = 2), (5 years or more at the institution = 1, Less than 5 years at the institution = 2), (tenured = 1, non-tenured =2).

Procedures

This student conducted the study under the guidance, discretion, authority, and supervision of Liberty University, the dissertation committee members, and the dissertation chair. The researcher also sought and obtained Institutional Review Board (IRB) approval at Liberty University via application before initiating the research and gathering the data (see Appendix E). The application showed no issues or concerns with the ethical treatment of the voluntary and anonymous participants in this study. Formal IRB approval at Liberty University was obtained only after producing proof of permission from each institution used in this study. Many of the institutions’ protocol required IRB approval from their institution as well as that of Liberty University. This student submitted the additional IRB applications at these institutions, obtained approval, and provided all the approval notices to Liberty IRB. While many of the institutions accepted the IRB approval from Liberty University, others did not require approval. Each of the 148 professors gave their consent by reading the consent form and completing the online survey freely and voluntarily without any incentive or coercion. A very
brief pilot study was conducted to ensure there were no issues with Survey Monkey instrument. This pilot study was conducted using several people from outside the education field. The pilot study identified that there were no issues with the clarity and ease of completion. Those who took the questionnaire reported that it only took about two or three minutes and was very well constructed. Based on the pilot study, the researcher was able to familiarize himself with the process of harvesting data from the Survey Monkey instrument. The tool allows for data to be uploaded directly into an excel spreadsheet, or an SPSS file without manual entry. The technology was beneficial in that it prevented any human error in the data-gathering and entry process.

The instructions for completing this questionnaire were very brief and were detailed in the emailed recruitment letter (see Appendix D). The researcher sent an email to every professor in the C&CJ departments at all 14 public community colleges and at 12 state universities. Then, 10 days later the researcher sent the second email. Several institutions would not provide the participants’ email addresses, instead electing to forward the request themselves internally. The instrument, created using Survey Monkey, consisted of 12 questions in addition to biographical questions (See Appendix B). The researcher created the questionnaire in a manner that allowed for easy completion. The Survey Monkey tool also allowed for advanced data exports into the SPSS. The researcher verified the completeness and accuracy of each questionnaire entry. The Survey Monkey tool would not accept incomplete questions.

Anonymity was assured for the participants, their departments, and the institutions. The 148 questionnaires were scored, coded, and uploaded into a Microsoft Excel spreadsheet by Survey Monkey. The data was prepared for advanced statistical analysis by Excel and uploaded into SPSS software. The researcher reviewed each entry for accuracy being circumspect in each
phase of data handling and transferring. Administering the questionnaire in the manner it was designed obviates the need for additional reliability and validity testing. The language of the Clinton et al. (2012) instrument was not changed or modified. However, there were adjustments made by the IRB, which will be discussed further in future chapters.

Length and appearance remain important factors that determine the response rate of questionnaires (Bayens & Roberson, 2010). Survey Monkey provided a palatable platform for all participants. The global 12-item instrument seems reasonable when compared to the much longer composite instruments. Follow-up correspondence should be sent to those who did not respond because their responses may have a profound effect on the overall study (Champion, 2006). One follow up email was sent to everyone. No other correspondence was sent after the second request because there was a seemingly high rate of return reached for many of the schools.

**Data Analysis**

A factorial ANOVA can be used to examine naturally occurring groups (Warner, 2013). For this study, a $2 \times 2$ factorial design is most appropriate for each research question. Figure 3 and Figure 4 serve as visual aids in detailing the factorial designs for RQ1 and RQ2. The first independent variable (Factor A) signifies the school type ($A_1 =$ community colleges, $A_2 =$ state universities), whereas the second independent variable (Factor B) signifies the employment status ($B_1 =$ part-time, $B_2 =$ full-time). The $Y$ quantitative outcome variable represents on-the-job embeddedness scores as determined by the Clinton et al. (2012) instrument for $H_01$, $H_02$, and $H_03$. The $Y$ quantitative outcome variable represents off-the-job embeddedness scores as determined by the Clinton et al. (2012) instrument for $H_04$, $H_05$, and $H_06$. 
This 2 x 2 factorial ANOVA examines two levels of two groups at the same time. School type and employment status each have two levels in this design. Community colleges and state universities demonstrate the two levels of school type, and part-time and full-time represent the two levels of employment status. On-the-job embeddedness is the dependent variable for RQ1.

The information was coded using the Survey Monkey online tool, as described above, and uploaded into SPSS. The first step in data analysis for a factorial design is to compute descriptive statistics for each group (Gall, Gall, & Borg, 2007). Preliminary data screening and descriptive statistics were performed before any analyses; see Table 2 and Table 3. Next, box and whisker plots were inspected to identify any outliers, see Figure 5 and Figure 6. Chapter four will discuss outliers in more detail. The two-way ANOVA looks at three null-hypotheses at one time (Warner, 2013). The analyses examined differences among groups, between groups, and the interaction. Normality was not examined using the Kolmogorov-Smirnov test because of the unequal and unbalanced cell sizes. Normality was examined using histograms of the frequency distribution for $Y$; see Figure 7, Figure 8, Figure 9, and Figure 10.
There exist three assumptions for the two-way ANOVA (Green & Salkind, 2014). First, there should be a normal distribution for the dependent variable. Second, the variances among the dependent variables should be the same across all levels of the factor. Lastly, the cases should represent random samples while allowing the scores on the dependent variable to be independent of each other. Warner (2013) adds a fourth assumption of equal numbers in all cells.

Since the numbers in the cells were unequal and unbalanced, nonorthogonal analyses were utilized to address confounding. Nonorthogonal techniques such as Type III SS and unweighted means were used to account for the unequal and unbalanced cell sizes. Homogeneity of variance was tested using Levene’s test. Since significance was larger than .05, an equal variance could not be assumed. Therefore, \( p < .001 \) was used to protect against Type I error due to unequal cell sizes and unequal variances. The two-way ANOVA was conducted using SPSS. Descriptive statistics were examined as well as the Tests of Between-Subjects Effects. The \( F, p, \) and partial \( \eta^2 \) values were examined and reported in chapter four. The analyses failed to reject
$H_{03}$ and $H_{06}$, and therefore post hoc testing was not necessary. The simple main effects analyses and interaction comparisons were conducted via SPSS as prescribed by Green & Salkind (2014).
CHAPTER FOUR: FINDINGS

Overview

Chapter four will primarily address the findings of this study. First, the two research questions and six null hypotheses will be listed. Next, the descriptive statistics will be discussed briefly. As stated in chapter three, there were 148 participants in this study. The descriptive statistics will highlight the dependent variable scores within the cells of the independent variables. The results section follows the descriptive statistics. The researcher used SPSS v. 23.0-grad pack with standard add-ons to conduct all statistical analyses. The results include data screening, assumptions, and the statistical analyses used to address each of the nulls. This chapter will also outline the statistical procedures used to address the null hypotheses. The results section will show which null hypothesis was rejected. The chapter will close with a short summary.

Research Questions

The research questions for this study are:

**RQ1:** What difference if any exists in the on-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges or state universities, as shown by the Clinton et al. (2012) attitudinal measure?

**RQ2:** What difference if any exists in the off-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges or state universities, as shown by the Clinton et al. (2012) attitudinal measure?
Hypotheses

The null hypotheses for this study are:

**H$_0$1:** There is no statistically significant difference between on-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) as shown by the Clinton et al. (2012) attitudinal measure.

**H$_0$2:** There is no statistically significant difference between on-the-job embeddedness scores for Criminology and Criminal Justice professors based on their employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H$_0$3:** There is no statistically significant interaction among on-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) and employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H$_0$4:** There is no statistically significant difference between off-the-job embeddedness scores for Criminology and Criminal Justice professors based on their school type (community colleges or state universities) as shown by the Clinton et al. (2012) attitudinal measure.

**H$_0$5:** There is no statistically significant difference between off-the-job embeddedness scores for Criminology and Criminal Justice professors based on their employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H$_0$6:** There is no statistically significant interaction among off-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) and employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.
Descriptive Statistics

Table 2 describes the number of samples $N$, the sample mean $M$, and sample standard deviation $SD$ for JEon, and Table 3 describes them for JEoff. The sample mean and standard deviation are defined for each of the four cells. There exists a total of $N = 148$ participants in the sample. The sample includes 73 participants from community colleges and 75 participants from state universities. Similarly, 72 part-timers completed the questionnaire, while 76 full-timers completed it. The sample includes 21 part-time state university participants and 20 full-time community college participants. These participants include 55 full-time state university participants and 52 part-time community college participants. The means measure slightly lower for JEon for state university full-time ($M = 20.45$, $SD = 4.38$) compared to part-time ($M = 22.15$, $SD = 3.28$). For JEoff there exists a difference in the means of full-time ($M = 20.61$, $SD = 5.54$) and part-time ($M = 24.33$, $SD = 3.36$). The means reported in Table 2 and Table 3 represent weighted means. It is important to mention that the unweighted or harmonic means are used in the analyses. However, the differences in the weighted versus unweighted means are very minimal for this study.

Table 2

**Dependent Variable: JEon – Descriptive Statistics**

<table>
<thead>
<tr>
<th>School Type</th>
<th>Employment Status</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community College</td>
<td>Part-Time</td>
<td>19.60</td>
<td>2.80</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Full-Time</td>
<td>19.76</td>
<td>2.62</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>19.64</td>
<td>2.74</td>
<td>73</td>
</tr>
<tr>
<td>State University</td>
<td>Part-Time</td>
<td>22.15</td>
<td>3.28</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Full-Time</td>
<td>20.45</td>
<td>4.38</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20.91</td>
<td>4.16</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>Part-Time</td>
<td>20.31</td>
<td>3.14</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Full-Time</td>
<td>20.26</td>
<td>3.97</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20.28</td>
<td>3.58</td>
<td>148</td>
</tr>
</tbody>
</table>
Table 3

**Dependent Variable: JEoff – Descriptive Statistics**

<table>
<thead>
<tr>
<th>School Type</th>
<th>Employment Status</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community College</td>
<td>Part-Time</td>
<td>24.42</td>
<td>3.09</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Full-Time</td>
<td>22.48</td>
<td>4.63</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23.86</td>
<td>3.67</td>
<td>73</td>
</tr>
<tr>
<td>State University</td>
<td>Part-Time</td>
<td>24.10</td>
<td>4.05</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Full-Time</td>
<td>19.89</td>
<td>5.73</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>21.01</td>
<td>5.62</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>Part-Time</td>
<td>24.33</td>
<td>3.36</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Full-Time</td>
<td>20.61</td>
<td>5.54</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>22.42</td>
<td>4.96</td>
<td>148</td>
</tr>
</tbody>
</table>

**Results**

**Data Screening**

The researcher used several methods of preliminary data screening. At the outset, there were two incomplete entries in the data set from Survey Monkey. The participants never submitted their results. Therefore, in keeping with the guidelines established in the consent form, those entries were deleted in their entirety. The data set did not identify any other missing data. The researcher downloaded the data from Survey Monkey directly into a Microsoft Excel document. The researcher used Excel to tabulate scores for on-the-job embeddedness (JEon) and off-the-job embeddedness (JEoff). The data was tabulated and organized on three separate occasions and compared/contrasted for accuracy. The excel document was then uploaded and used to create an SPSS document.

“Cleaning the data is the process of inspecting the data for scores (or values) that are outside the accepted range” (Creswell, 2015, p.179). The primary method used to inspect for outliers was the box and whiskers plots. Box and whiskers plots offer a visual depiction of the
data for JEon and JEoff, reference Figure 5 and Figure 6, respectively. There were two outliers identified for JEon in the full-time community college sample and three from the part-time community college sample. There were no outliers for the state university sample for JEon. For JEoff there was one outlier from the full-time community college sample and one outlier for part-time state university sample. These outliers were addressed by winsorizing before conducting any further statistical analyses, since winsorizing reduces the impact of outliers (Warner, 2013).

**Figure 5.** Box and whiskers plot for on-the-job embeddedness. Box and whiskers plots for JEon by school type and employment status. Outliers were detected at items #8, #11, #28, and #65 from part-time community college. Outliers were also detected at items #35 and #39 for full-time community college.
Figure 6. Box and whiskers plot for off-the-job embeddedness. Box and whiskers plots for JEoff by school type and employment status. Outliers were detected at items #32 of full-time community college and #82 of part-time state university.

Assumptions

As discussed in chapter three, the two-way ANOVA has several assumptions. There should be a normal distribution of the dependent variable for all four cells. The researcher did not use the Kolmogorov-Smirnov test of normality because of the unbalanced and unequal cell sizes. Instead, histograms were used to assess normality. Figure 7 shows JEon scores across all cells, while Figure 8 shows JEoff scores across all cells. Figure 9 shows JEon scores for the entire sample, while Figure 10 shows JEoff scores for the entire sample. The data shows a
relatively normal distribution for each chart. There do not appear to be any thick tails, heavy
skews, leptokurtic, or platykurtic distributions. However, the two-way ANOVA is robust to
violations of this assumption. In some cases when normality is violated and the sample size is as
little as 15 per cell, the two-way ANOVA will still yield reasonably accurate $p$ values (Green &
Salkind, 2014).

Figure 7. Histograms by cell for $2 \times 2$ factorial ANOVA for RQ1. Histogram for each cell
of the $2 \times 2$ factorial ANOVA based on the scores of the dependent variable (JEon) for
RQ1. The bell curve indicates an approximately normal distribution of data within the
cells.
Figure 8. Histograms by cell for $2 \times 2$ factorial ANOVA for RQ2. Histogram for each cell of the $2 \times 2$ factorial ANOVA based on the scores of the dependent variable (JEoff) for RQ2. The bell curve indicates an approximately normal distribution of data within the cells.
**Figure 9.** Histogram of on-the-job embeddedness scores. Histogram of all $N = 148$ scores based on the dependent variable (JEon) for RQ1. The bell curve indicates an approximately normal distribution of data.
Figure 10. Histogram of off-the-job embeddedness scores. Histogram of all \( N = 148 \) scores based on the dependent variable (JEoff) for RQ2. The bell curve indicates an approximately normal distribution of data.

The variances of scores across groups should be reasonably homogeneous (Warner, 2013). Leven’s tests of equality of error variances were used to assess homogeneity. The assumption of equal variance was violated for JEon and JEoff as referenced in Table 4. The two-way ANOVA is robust to violations of this assumption unless the number of cases in each cell is minimal or they are unequal (Warner, 2013). Nonorthogonal techniques such as Type III SS and
unweighted means were used to account for the unequal cell sizes. Therefore, \( p < .001 \) rather than \( p < .05 \) was used to protect against Type I error. These issues are further discussed below.

Table 4

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>JEon</td>
<td>4.356</td>
<td>3</td>
<td>144</td>
<td>.006</td>
</tr>
<tr>
<td>JEoff</td>
<td>7.435</td>
<td>3</td>
<td>144</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note.* Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + CCSU + PTFT + CCSU * PTFT

The last assumption assumes that the cases are random samples from the population, and the scores of the dependent variables are independent of each other. Like many studies in the social sciences, this data results from a convenience sample of the willing. Therefore, it is not exactly a random sample. This is a common difficulty when making observations linked to the population based only on convenience sample. Several professors teach at both the community college and the state university. The researcher only sent one invitation to those professors who teach in multiple contexts.

**Null Hypotheses – Analyses**

A two-way ANOVA was used to test \( H_01 \). The first null hypothesis stated there was no significant difference between JEon scores of C&CJ professors based on school type (community colleges or state universities). The analysis failed to reject this null. The test was not significant in that \( F(1,144) = 6.306, p = .013, \eta^2_{partial} = .042 \). Also, \( F_{critical} = 11.285 \) was larger than \( F \), and therefore the analysis failed to reject the null hypothesis. The \( F_{critical} \) statistic was calculated by the calculator at (https://www.danielsoper.com/statcalc/calculator.aspx?id=4). Reference Table 5 for Tests of Between-Subjects Effects.
A two-way ANOVA was used to test $H_0^2$. The second null hypothesis stated there was no significant difference between JEon scores of C&J professors based on employment status (part-time or full-time). The analysis failed to reject the null. The test was not significant in that $F(1,144) = 1.400$, $p = .239$, $\eta^2_{\text{partial}} = .010$. Also, $F_{\text{critical}} = 11.285$ was larger than $F$, and therefore the analysis failed to reject the null hypothesis. Reference Table 5 for Tests of Between-Subjects Effects.

A two-way ANOVA was used to test $H_0^3$. The third null hypothesis stated that there was no significant interaction among JEon scores of C&J professors based on school type and employment status. The analysis failed to reject the null. The test was not significant in that $F(1,144) = 2.072$, $p = .152$, $\eta^2_{\text{partial}} = .014$. Also, $F_{\text{critical}} = 11.285$ was larger than $F$, and therefore the analysis failed to reject the null hypothesis. Reference Table 5 for Tests of Between-Subjects Effects.

Table 5

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>101.566$^a$</td>
<td>3</td>
<td>33.855</td>
<td>2.735</td>
<td>.046</td>
<td>.054</td>
</tr>
<tr>
<td>Intercept</td>
<td>49750.330</td>
<td>1</td>
<td>49750.330</td>
<td>4019.067</td>
<td>.000</td>
<td>.965</td>
</tr>
<tr>
<td>CCSU</td>
<td>78.053</td>
<td>1</td>
<td>78.053</td>
<td>6.306</td>
<td>.013</td>
<td>.042</td>
</tr>
<tr>
<td>PTFT</td>
<td>17.329</td>
<td>1</td>
<td>17.329</td>
<td>1.400</td>
<td>.239</td>
<td>.010</td>
</tr>
<tr>
<td>CCSU * PTFT</td>
<td>25.654</td>
<td>1</td>
<td>25.654</td>
<td>2.072</td>
<td>.152</td>
<td>.014</td>
</tr>
<tr>
<td>Error</td>
<td>1782.515</td>
<td>144</td>
<td>12.379</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>62776.000</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Corrected Total</td>
<td>1884.081</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note. a. R Squared = .054 (Adjusted R Squared = .034)

A two-way ANOVA was used to test $H_0^4$. The fourth null hypothesis stated that there was no significant difference between JEoff scores of C&J professors based on school type (community colleges or state universities). The analysis failed to reject this null. The test was
not significant in that $F(1,144) = 3.004, p = .085, \eta^2_{\text{partial}} = .020$. Also, $F_{\text{critical}} = 11.285$ was larger than $F$, and therefore the analysis failed to reject the null hypothesis. Reference Table 6 for Tests of Between-Subjects Effects.

A two-way ANOVA was used to test $H_0.5$. The fifth null hypothesis stated that there was no significant difference between JEoff scores of C&CJ professors based on employment status (part-time or full-time). The analysis rejected the null for this group. The test was significant in that $F(1,144) = 13.457, p < .001, \eta^2_{\text{partial}} = .085$. Also, $F_{\text{critical}} = 11.285$ was smaller than $F$, and therefore the analysis was able to reject the null hypothesis. Reference Table 6 for Tests of Between-Subjects Effects.

A two-way ANOVA was used to test $H_0.6$. The sixth null hypothesis stated that there was no significant interaction among JEoff scores of C&CJ professors based on school type and employment status. The analysis failed to reject the null. The test was not significant in that $F(1,144) = 1.817, p = .180 .001, \eta^2_{\text{partial}} = .012$. Also, $F_{\text{critical}} = 11.285$ was larger than $F$, and therefore the analysis failed to reject the null hypothesis. Reference Table 6 for Tests of Between-Subjects Effects.

Table 6

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>616.951$^a$</td>
<td>3</td>
<td>205.650</td>
<td>9.861</td>
<td>.000</td>
<td>.170</td>
</tr>
<tr>
<td>Intercept</td>
<td>61178.436</td>
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<td>61178.436</td>
<td>2933.557</td>
<td>.000</td>
<td>.953</td>
</tr>
<tr>
<td>CCSU</td>
<td>62.641</td>
<td>1</td>
<td>62.641</td>
<td>3.004</td>
<td>.085</td>
<td>.020</td>
</tr>
<tr>
<td>PTFT</td>
<td>280.646</td>
<td>1</td>
<td>280.646</td>
<td>13.457</td>
<td>.000</td>
<td>.085</td>
</tr>
<tr>
<td>CCSU * PTFT</td>
<td>37.899</td>
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<td>37.899</td>
<td>1.817</td>
<td>.180</td>
<td>.012</td>
</tr>
<tr>
<td>Error</td>
<td>3003.076</td>
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<td>20.855</td>
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</tr>
<tr>
<td>Total</td>
<td>78006.000</td>
<td>148</td>
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<td></td>
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<td>Corrected Total</td>
<td>3620.027</td>
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<td></td>
</tr>
</tbody>
</table>

Note. a. R Squared = .170 (Adjusted R Squared = .153)
Summary

This chapter began by listing the two research questions and six null hypotheses. The descriptive statistics section discussed the number of samples $N$, sample means $M$, and sample standard deviations $SD$, for JEon and JEoff. The researcher examined the sample means and standard deviations for each of the four cells and the $N = 148$ participants. The results section included data screening, assumptions, and the statistical analyses used to address each of the nulls. The two-way ANOVA was used to answer each of the research questions. Only $H_05$ was rejected indicating a significant difference between scores based on employment status for JEoff. A simple profile plot best illustrates this rejection in Figure 11 below. $H_01$ may have been rejected under a standard $\alpha = .05$. However, $\alpha = .001$ was used because the assumption of homogeneity was violated and there are unequal cells sizes.

![Unweighted Means of Off-The-Job Embeddedness](image)

Figure 11. Profile plot of off-the-job embeddedness. A profile plot of JEoff using the harmonic means and illustrating the rejection of $H_05$. 
CHAPTER FIVE: CONCLUSIONS

Overview

This final chapter begins with an overall discussion of the study and the research questions. The research questions are discussed in light of the results, current literature, other studies, and the theories behind them. This section compares and contrasts the current study with other recent publications. The implications section considers meanings beyond the empirical findings. The limitations section examines those areas in the study that could have an impact on internal and external validity and reliability. The recommendations section offers several directions to continue research in this area.

Discussion

The purpose of this non-experimental quantitative study is to compare the job embeddedness attitudes of C&CJ professors at community colleges with their counterparts at state universities. The sample necessarily included both the part-time and full-time professors. The Clinton et al. (2012) job embeddedness attitudinal measure was selected to measure the dependent variable. The independent variables were school type and employment status. Each independent variable has two levels. The study is both timely and relevant due to the innovative disruption caused by technology in higher education paradigm.

Online education is hitting the academy like a tidal wave and forcing some uncomfortable changes. As discussed in chapter two, the literature indicates that institutions are relying heavily on adjunct or part-time professors to carry out the teaching function. Tenure-track positions are declining (Carey, 2012; Pikciunas et al., 2016), and one reason is due to the recent reduction in government-appropriated research funding for state universities (Yang & Webber, 2015). However, C&CJ degrees are still very popular (Pikciunas, Cooper, Hanrahan, &
Gavin, 2016; Sloan & Buchwalter, 2017). It is this popularity that may account for this study’s inconsistency with the literature. This study identified how in one state the universities are still relying heavily on tenure and tenure-track positions in the C&CJ departments, whereas the community colleges are relying heavily on part-time instructors. The widespread continuation of tenure in and of itself is a fascinating finding that requires additional research. The current literature does not seem to support this finding broadly in the United States. This area is discussed further below under the future research heading.

The research questions for this study are:

**RQ1:** What difference if any exists in the on-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges or state universities, as shown by the Clinton et al. (2012) attitudinal measure?

**RQ2:** What difference if any exists in the off-the-job embeddedness scores between part-time and full-time Criminology and Criminal Justice professors working at community colleges or state universities, as shown by the Clinton et al. (2012) attitudinal measure?

The null hypotheses for this study are:

**H₀₁:** There is no statistically significant difference between on-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) as shown by the Clinton et al. (2012) attitudinal measure.

**H₀₂:** There is no statistically significant difference between on-the-job embeddedness scores for Criminology and Criminal Justice professors based on their employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H₀₃:** There is no statistically significant interaction among on-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) as shown by the Clinton et al. (2012) attitudinal measure.
colleges or state universities) and employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H04:** There is no statistically significant difference between off-the-job embeddedness scores for Criminology and Criminal Justice professors based on their school type (community colleges or state universities) as shown by the Clinton et al. (2012) attitudinal measure.

**H05:** There is no statistically significant difference between off-the-job embeddedness scores for Criminology and Criminal Justice professors based on their employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

**H06:** There is no statistically significant interaction among off-the-job embeddedness scores for Criminology and Criminal Justice professors based on school type (community colleges or state universities) and employment status (part-time or full-time) as shown by the Clinton et al. (2012) attitudinal measure.

This study was not able to identify a difference across factors for on-the-job embeddedness in RQ1. However, the $M = 20.28$, $SD = 3.58$ for on-the-job embeddedness scores indicates a better than neutral embeddedness attitude for professors across levels. A neutral job embeddedness score is 18. As discussed above, researchers are not utilizing this theory in the higher education employment context. One study examined foreign faculty in a U.S. university (Akulli, 2015) whereas another study explored job embeddedness at a foreign university (Takawira et al., 2014). The latter used the original Mitchell et al. (2001) instrument to measure embeddedness and examined work engagement as well as intention to leave. The study affirmed prior research, which indicated higher job embeddedness scores seem to indicate lower levels of turnover intention. In other words, those who were highly embedded felt the need to stay. The Akulli (2015) study, a dissertation with 13 hypotheses surrounding the faculty’s foreign-born
status, produced several significant findings. For example, foreign-born female professors had lower off-the-job embeddedness scores than their male counterparts, significant at $p = .041$. Off-the-job embeddedness scores were also significant based on home ownership, $p = .049$. However, this finding was close enough to $\alpha = .05$ that perhaps it should not have been considered significant. The Akulli (2015) and Takawira et al., (2014) studies account for the only research projects remotely close to this current undertaking. Even though these studies involved higher education as an employment context, the independent variables were not similar, and the research questions were not similar. Additionally, the instruments used and statistical analyses were not similar either.

The uniqueness of this study highlights its strength. The majority of current embeddedness research does not measure the off-the-job components. As discussed earlier, the Crossley et al. (2007) measure may be extremely popular for its brevity, however it does not take an off-the-job embeddedness measurement. While only off-the-job embeddedness was found to be significant here, this is not unique. Off-the-job embeddedness was found significant in the Akulli (2015) study as well. It is beneficial to compare the recent embeddedness literature from outside higher education with these recent findings.

One of the latest studies found no significant relationship between job embeddedness and education level (Ghadeer, 2018). These findings contradict earlier studies. However, the reason may be because the jobs studied had no promotional opportunities tied to the increased education. Another recent study examined the role the size of the organization played on job embeddedness (Coetzer, Inma, & Poisat, 2017). Job embeddedness affected turnover intentions in large organizations but not small. Career development and rewards influence employee intention to leave through organizational job embeddedness (Dechawatanapaisal, 2018).
Gonzalez, Ragins, Ehrhardt, and Singh (2018) conducted a study that supported the role of organizational support for off-the-job embeddedness. The study highlighted the importance of off-duty relationships to the workplace. Each of these studies adds another essential component to our understanding of how job embeddedness research is growing and expanding in many directions. This dissertation will stand alongside these studies by offering a new context, new independent variables, and an unemployed and underestimated instrument that includes off-the-job embeddedness scores.

**Implications**

The purpose of this study was to examine any differences that may exist in on- and off-the-job embeddedness with part-time and full-time C&CJ professors at public community colleges and state universities in the same state. The research was not able to determine that any difference currently exists in on-the-job embeddedness. However, there does appear to be a significant relationship at $p < .001$ between part-time and full-time positions in off-the-job embeddedness. Interestingly, it is the part-time scores that are higher. One may have thought those with full-time positions would be more embedded in their communities than those who are considered part-time. Because they are part-time, perhaps many of these professors/instructors have other full-time jobs. These additional social and employment networks may contribute to embedding them in their communities. The original Mitchell et al. (2001) study showed how relationships create more psychological entanglement.

Another possibility for this finding lies with the professional nature of full-time professors. As stated above, the job description for a full professor differs a great deal from a part-time adjunct. In many cases, they have a higher level of education and expertise. They may even be from outside the immediate area and moved to the community to accept their current
position. Perhaps part-time professors/instructors have lived in the immediate area their whole lives and would, therefore, be more embedded. Further research is needed to validate these findings and then explore what causes may be responsible. There are some critical implications based on this finding.

As discussed in chapter one and two, many institutions have begun to rely heavily on part-time adjunct professors and instructors to assist with carrying out the teaching load. However, this does not appear to be the case for state university C&CJ departments. It is also important to note that at some state universities the graduate students in doctoral programs are used to teach classes. Utilizing graduate students would obviate the need to use adjuncts at these schools. Graduate students were not considered in this study because the institution does not compensate them financially.

There were several cases where a full-time professor at one institution was also considered part-time at another institution. These professors were asked to complete only one questionnaire. The overarching goal of this study was to examine the attitude differences of the subjects, if any existed, between these public institutions. In other words, is there something state universities are doing differently in the C&CJ departments that fosters attitudinal differences in job embeddedness when compared to community colleges? This study was not able to identify any significant difference. However, it is also necessary to note these groups of professors/instructors are different types of people with different types of positions. Community colleges rely on practitioners, who principally teach in a part-time capacity. Most do not possess terminal degrees and are not primarily involved in research or publishing. The opposite is true at the state universities. Therefore, while the job classification is similar, it is also very distinctive as well. The role and job description of the full professor undoubtedly highlights this
discrepancy. Furthermore, there are additional disparities when the online-only job description is factored in.

There are some implications from this study for the future use of the Clinton et al. (2012) measure. One of the purposes of this project was to utilize this new instrument and apply it to the higher education context. This raises questions about the off-the-job embeddedness measure. In the original study, Clinton et al. (2012) dropped one of the questions from the off-the-job instrument in the original study. When they administered it to IT personnel, there was some confusion in terms. The researchers reworded the question to alleviate these concerns. The question initially stated: “There is plenty to keep me happy around here whilst I am not working” (Clinton et al., 2012, p. 117). The researchers modified the question to read: “There is plenty to keep me happy off duty around here” (Clinton et al., 2012, p. 114). Moreover, Liberty IRB changed the question to read: “There is plenty to keep me happy off duty around this city or town” (see Appendix B). With all of these changes, there is still confusion. One of the participants sent an email stating she commutes to the university from over an hour away. She did not know if these off-the-job questions meant the community where the school was located or the community where she lived. The author of the measure said extended commuters are a problem with off-the-job embeddedness theory in general because the theory assumes people live where they work (M. Clinton, personal communication, September 17th, 2018). The rest of the questions seem clear that off-the-job embeddedness is referring to the community in which one lives. He said this concern might be one reason why off-the-job embeddedness findings are more mixed and less widely published. The question would be less ambiguous if stated: “There is plenty to keep me happy off duty in the community where I live.” The community where they live affords them the ability to commute to work, regardless of the distance.
Lastly, this study opens the door to further research in part-time versus full-time positions within the academy. While the vision and purpose of community colleges and state universities are much different, both are concerned with recruiting, equipping, and maintaining a quality faculty. Since job embeddedness research is so prevalent in other fields, it is only appropriate for additional research to examine how this theory can be used to help administrators in higher education.

Limitations

The wording of one of the part-time versus full-time questions in the instrument is another limitation of this study. One professor sent an email and stated she refused to complete the questionnaire because the wording was ambiguous. She did not identify what question(s) were ambiguous and her criticism was anything but constructive. However, the only question even remotely ambiguous deals with part-time versus full-time status. Identifying what constitutes part-time is difficult in the education context of employment, and more especially in higher education. There was a requirement to use a published definition, and therefore the Gappa (1984) definition was selected. While most professors should understand if they are considered full-time or part-time, perhaps a better definition could be adopted to alleviate any ambiguity. For example, the full-time sociology or anthropology professor may teach part-time in the criminology department. It does seem unlikely an assistant, associate, or full professor would have selected part-time because they were confused. None of the IRB’s identified an issue with the wording of this question. Also, out of 148 respondents (many who have Philosophy Doctorates), there was just this one complaint. However, since there was a complaint, this should be considered a limitation of the study and future work should seek additional clarity for this question.
Antivirus protection software flagged the researcher’s Liberty email account as spam at two of the schools. Also, at least two schools were not able to send any emails to the researcher’s Liberty email account. Two of the participants called the researcher at his place of employment to verify if the study was real or not. While these issues seem to be limited to only two institutions, it is entirely possible the response rate may have been higher. Also, two professors emailed the researcher and said they were not comfortable answering the questions and would not participate because of the subject matter. Though anonymity was assured, the respondents were required to place great trust that their respective institutions would not learn their answers. Some were not willing to do so. This type of apprehension or intimidation may have affected how some participants answered the questions.

There were 10 participants out of 148 who reported they were “online-only.” This online-only classification will be discussed in further detail under the future research section. Job embeddedness has not been studied from an online employment perspective. Also, these online-only professors may live anywhere in the world or may be just as likely live in the local community. Indeed, the institution would have no impact on the off-the-job embeddedness scores. None of these 10 scores were outliers. Also, all but two had positive on-the-job scores, and all but one had positive off-the-job scores.

Lastly, this study has the same limitations that all non-experimental causal-comparative studies have. Since there was no treatment or control group, the ex-post facto measurement cannot be identified as the only cause of the difference in the independent variable. Instead, the significance can only show if a relationship exists. Furthermore, a two-way ANOVA with unequal cells is considered by many to be a poor research design. However, it does happen frequently with ex-post facto research when the cell sizes are unknown. The literature review
identified an increased use of adjunct professors to carry out the teaching function at institutions of higher learning. While this appears to be the case at community colleges in the state examined, it does not appear to be the case for state universities. This distinction in and of itself is a significant finding that begs further research.

There were 88 full-time state university C&CJ professors identified. There were only 28 part-time state university instructors/adjuncts identified. Therefore, the unequal and unbalanced design is a limitation due to confounding. There is no consensus in the literature on how to address this confounding. Some recommend using Type II instead of Type III sums of squares (Langsrud, 2002). Some recommend nonparametric analysis (Hahn & Salmaso, 2017). To limit confounding to the greatest extent possible nonorthogonal techniques such as Type III SS in SPSS and harmonic means were used to account for the unequal and unbalanced cell sizes (Laurencelle, 2017; Warner, 2013). The homogeneity of variance assumption is violated, and there are unequal cell sizes. Therefore, $\alpha = .001$ was used to protect against Type I error.

**Recommendations for Future Research**

There are limitless opportunities for further research based on the literature and these findings. Further research is needed to identify if retaining the tenure structure is normative for state universities as a whole or just C&CJ departments. Also, further research is needed to determine what effect tenure has on job embeddedness theory. There were only 10 participants who identified as online-only in the entire state. This number seems very low given the current milieu in online education. Further research should seek to understand what role, if any, job embeddedness theory has in online-only environments.

In this study, the analysis rejected only one null-hypothesis. There was a significant difference in off-the-job embeddedness scores between full-time and part-time professors. The
profile plot may best illustrate this difference; see Figure 5 in chapter four. A replication study using one of the many other job embeddedness instruments would be beneficial to verify the results. If the replication study turns up similar results, it may be interesting to conduct a qualitative study to examine possible causes for why this difference exists. Perhaps part-time professors are more embedded in the community because they have multiple places of employment and multiple community relationships.

Further research is needed into the utility job embeddedness theory in higher education as a workplace. This study was not able to identify any significant difference in the job embeddedness attitude scores for C&CJ professors at community colleges and state universities. However, further research is needed. Perhaps a longitudinal study could test these attitudes at intervals. Perhaps the timing of the questionnaire influenced the scores and the response rate because participants were coming back from summer break. There are many opportunities for further research in job embeddedness both within the context of C&CJ departments and at the academy in general.

**Summary**

Chapter one of this dissertation offers an introduction that began by giving a general overview. The background section discussed recent job embeddedness literature from a historical, social, and theoretical context. The problem statement highlighted the lacuna in the literature for this context. The purpose statement showed how this project assists us in understanding embeddedness theory better while helping sure up the literature gap for this context. The significance of the study section established how this current undertaking contributes to our understanding of why people stay at their places of employment. The research
questions were discussed and clearly stated. The defining terms section identifies those definitions that are critical in this study.

Chapter two began with a brief overview of the literature review. The first section addressed the conceptual and theoretical frameworks that prop up job embeddedness theory. Because job embeddedness is relatively new, the framework section identified and discussed the foundational work that evolved into the theory of why people stay at their places of employment. The related literature section offered a synthesis of the current literature on this topic. This section identified the significance of the study, where the current literature is heading, and where some of the lacunas exist.

Chapter three began with an overview of the methodology. The research design, the research questions, the null hypotheses were all discussed. Next, the participants and the setting were described in great detail. The instrument and the procedures were discussed. The data analyses section is one of the most critical sections in this quantitative study. This section specifically addressed how each research question was approached, based on the data received.

Chapter four reviewed the results or findings of the research. The chapter began with an overview, the research questions, and the null hypotheses. The descriptive statistics identified and described the data in the most basic of terms. The results section addressed the preliminary data screening, assumptions testing, the procedures used in the two-way factorial ANOVA, and the results of the null hypotheses testing.

Finally, chapter five addressed the conclusions of the study. The discussion section addressed how this study meshes with current literature on job embeddedness. This study was compared and contrasted with the findings from earlier studies. The implications section briefly discussed the meanings of the study above and beyond the empirical findings. The limitations
section covered a broad range of potential corruptive influences to external validity and reliability. Lastly, several recommendations for future research were discussed.
REFERENCES


doi:10.1177/1548051817702095


doi:10.1177/0972150915591652


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APPENDIX A

CONSENT FORM
A Job Embeddedness Comparison of Professors Based on Employment Status and Type

Jeremy T. Bowser
Liberty University
School of Education

You are invited to be in a research study on the job embeddedness of criminology and criminal justice professors at community colleges and state universities. You were selected as a possible participant because of your employment as a full-time or part-time professor in the criminology or criminal justice field. Please read this form and ask any questions you may have before agreeing to be in the study.

Jeremy T. Bowser, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to examine if there are possible structural, systemic, or foundational differences in criminology and criminal justice departments at four year institutions and two year institutions that may create or support varied levels of job embeddedness for their professors. Also, the study seeks to examine possible differences in the embeddedness of full-time and part-time professors. There are two research questions in this study:

**RQ1:** What difference if any exists in the on-the-job embeddedness scores between part-time and full-time C&CJ professors working at community colleges and state universities, as shown by the Clinton et al. (2012) attitudinal measure?

**RQ2:** What difference if any exists in the off-the-job embeddedness scores between part-time and full-time C&CJ professors working at community colleges and state universities, as shown by the Clinton et al. (2012) attitudinal measure?

Procedures: If you agree to be in this study, I would ask you to do the following things:
1. Complete an anonymous online survey that will take about 5-10 minutes to complete.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study.

Compensation: Participants will not be compensated for participating in this study.
Confidentiality: The records of this study will be kept private. Research records will be stored securely, and only the researcher and dissertation chair will have access to the records. Participants will be anonymous. Data will be stored within the secure confines of Survey Monkey. Also, data will be backed up by the researcher’s password-protected laptop computer. After three years all electronic records will be deleted consistent with federal regulations.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or your school. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey, without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please exit the survey and close your Internet browser. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is **[redacted]**. You may ask any questions you have now. If you have questions later, you are encouraged to contact him at **[redacted]**. You may also contact the researcher’s faculty advisor, **[redacted]**.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 1887, Lynchburg, VA 24515 or email at **[redacted]**.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.
APPENDIX B

Preliminary Biographical Information:
1. Do you teach at a Community College or State University? Community College or State University
2. Are you part-time or full-time? (part-time is less than average full-time workload/responsibilities for your classification and assignment) Part-time or Full-Time
3. Do you teach exclusively online? Yes or No
4. Are you married or single? Married or Single
5. Are you a male or a female? Male or Female
6. Are you tenured or in a tenured track position? Yes or No
7. Have you been with the institution 5 or more years? Yes or No

Job Embeddedness Questions:
Responses to the following will be recorded on a 5-point scale, where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Hi
Yes - the measure has not quite caught on yet. We plan to publish more data from this evolving dataset but that will not be for a year or so.
I believe that at about the same time a measure by Crossely came out and that took more of a hold.
You can use the measure freely in your research.
Best wishes

Dr. Michael Clinton
Senior Lecturer in Work Psychology & HRM
School of Management & Business
King’s College London
[Date]

Dear Professor/Instructor:

My name is Corporal Jeremy T. Bowser and I am a patrol unit supervisor with the Pennsylvania State Police. I am writing to ask for your help. As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctorate degree. The purpose of my research is to examine the job embeddedness attitude differences, if any, between full-time and part-time Criminology and Criminal Justice professors at community colleges and state universities. I am writing to invite you to participate in my study.

If you are employed as a professor/instructor of Criminology, Criminal Justice, or similar discipline, and are willing to participate, you will be asked to complete a very short online questionnaire. It should take about 5-10 minutes for you to complete the questionnaire. Your participation will be completely anonymous, and no personal, identifying information will be collected.

To participate please click on the following link that will take you to the questionnaire:

[Link]

A consent document is provided on the first page you will see after you click on the survey link. The consent document contains additional information about my research. Please click on Agree/Continue at the end of the consent information to indicate that you have read the consent information and would like to take part in the survey.

Sincerely,

[Signature]
August 13, 2018

IRB Exemption 3286.081318: A Job Embeddedness Comparison of Professors Based on Employment Status and Type

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at xxxxxxxxx

Sincerely,