Exploring Person-Organization Fit and Gender Bias in the Hiring Process of Engineering Firms: Is Selection Impacted?

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We, the undersigned committee, hereby recommend that the attached document be accepted as fulfilling, in part, the requirements for the degree of Doctor of Business Administration.

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Engineering Firms: Is Selection Impacted?

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Abstract

TITLE: Exploring Person-Organization Fit and Gender Bias in the

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Impacted?

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This study sought to discover whether intentionally considering personorganization (P-O) fit during the selection process of workforce planning is
impacted by gender bias on the part of the hiring manager. Utilizing a comparative
case study of hiring managers and employees of small, for-profit engineering firms,
the study attempted to discover whether firms that specifically screen applicants for
fit with the organization also exhibit gender bias in their selection decisions and
whether this differs from firms that do not necessarily hire or rigorously screen for
fit with the organization.

The theoretical framework for the study follows the Attraction-Selection-Attrition (ASA) framework first proposed by Benjamin Schneider in 1987. The premise of that framework was that the work environments chosen by workers are similar to the workers who join them, because employees prefer a work environment with the same 'personality' profile as themselves. Conversely, those

who do not fit within an organizational environment will tend to leave it.

Subsequent research on P-O fit regarding the outcomes of job satisfaction and turnover has been mixed, with the majority supporting, to varying degrees, an increase in job satisfaction and a decrease in turnover intention.

While gender bias in selection has also been studied extensively, no studies have researched the effects of both P-O fit considerations and gender bias simultaneously. Previous studies have overwhelmingly studied the constructs separately, mostly from an employee's interaction within the organization after employment.

If P-O fit is an intentional consideration from the beginning of the workforce planning process, studies have shown that employees who are hired as a result will either be a homogeneous, tight-knit but less innovative group, or they will be a more diverse, innovative group. While not a specific focus of the study, resultant perceived job satisfaction and intention to remain with the organization will be observed as an outcome of selection decisions and an indication of whether there is a relationship between hiring for fit and operationalization of gender bias. The implication of the existence of P-O fit and gender bias is the effect on the long-term outcomes of job satisfaction and tenure within a firm.

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When I was first discussing the general topic of person-organization fit with my brother, Paul Wood, he took a special interest in it, since the CEO of his firm, who is also the hiring manager, is a huge proponent of hiring people for fit with the organization. Paul, who is a partner and vice president at this engineering firm, talked at length with me about the topic, and he helped me start to solidify and focus my study. I remember it as being the first time I could see a clear path for my study, and our discussions gave me the first glimpse into what eventually became my study parameters. As such, it was natural for me to select his firm as

one of my two study firms. He introduced me to his partner/CEO, and the rest, as they say, is history. I chose not to include Paul as a study participant because of the possibility of bias in our discussions, but he was obviously instrumental in assisting me with a whole range of procedural considerations in my study. So, I must thank my brother not only for being a great brother, but also for his willingness to assist me with my dissertation study and for allowing me to use him as a sounding board for procedural ideas. When I didn't understand a term used during interviews, I would text him for explanations, and he always came through. He and my sister-in-law, Kathleen, were gracious hosts while I was in town doing interviews, and their interest in the study has been unflagging.

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Dedication

This dissertation is dedicated to my parents, Garry and Barbara Wood.

They are the reason I am where I am today, not only for the obvious biological reason, but also for their dedication and discipline in raising two children who love learning and are well-balanced, successful adults. Mom taught me to cook and clean and take care of an entire household. Dad taught me to throw, catch, and hit a ball. He taught me to take care of things, including washing a car, mowing a lawn, and basic repair jobs around the house. Jointly, they taught me to love reading and knowledge. I was already reading by the time I got to kindergarten, and that love has never left me. They taught me the value of relationships, humility, and accountability. They taught me how to solidify and maintain relationships with everyone from the company CEO to the janitor. They taught me to accept that which I cannot change and charge ahead toward changing that which I can, while always making sure that the change I seek is for the greater good.

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Chapter 1: Overview

Introduction

Person-organization (P-O) fit has been studied extensively as a construct utilized during the selection process of workforce planning within the overall strategic human resource function. The literature regarding P-O fit has assumed that fit is not only a necessary element of the workforce planning process but is best measured during the selection phase of that process (Bowen, Ledford, & Nathan, 1991; Chatman, 1989; Kristof, 1996; Kristof-Brown, Zimmerman, & Johnson, 2005; Nolan, Langhammer, & Salter, 2016). Empirical studies have traditionally sought to demonstrate that incorporation and consideration of P-O fit during selection leads to positive strategic attitudinal and behavioral outcomes, such as job satisfaction and increased productivity, as well as reduced intent to turnover, among others (Kristof-Brown, Zimmerman, & Johnson, 2005; Nolan, Langhammer, & Salter, 2016; O'Reilly, Chatman, & Caldwell, 1991). Such outcomes are usually measured based on surveys of job incumbents or analysis of organizational metrics without regard to how P-O fit was integrated in the selection process. Those studies which have considered fit during selection have generally measured it based on congruence with a set of existing characteristics of the organization (e.g., values, role identity, cultural aspects, etc.) and, while eventual

affective and attitudinal outcomes are considered, they are not necessarily integrated with or measured by consideration of fit during selection.

Gender bias in selection has also been studied extensively; however, no studies found by the researcher have investigated the effects of both P-O fit considerations and gender bias in selection. Previous studies have overwhelmingly studied P-O fit and gender bias (if it occurs) separately and generally from the viewpoint of an employee's interaction within the organization after employment, albeit based on considerations during the selection process. The present study sought to determine qualitatively whether there is a relationship between intentional hiring for P-O fit and unintentional gender bias during selection, and if so, whether evidence supports a resultant workforce with expected attitudinal outcomes of satisfaction and intention to remain with an organization. By querying hiring managers regarding the measures they use to determine fit during selection, if any, and integrating that with incumbent perceptions of organizational congruence, the goal was to determine whether those employees who were specifically selected for fit have different levels of job satisfaction and intention to remain with the organization than do those employees who were not specifically selected for fit.

Working within the Attraction-Selection-Attrition (ASA) framework first proposed by Schneider (1987), the study also sought to determine whether hiring specifically for fit with an organization leads to a myopic 'like me' attitude wherein

those hired become a homogeneous group lacking diversity. Especially within the field of engineering, it is possible that biases would result in hiring certain types of engineers and support staff who fit with the perceived values and appearances of the executives and hiring managers. It is equally possible that biases would result in hiring for complementary skills, values, and attitudes which would result in hiring a more heterogeneous group. These constructs will be defined and explored.

At its core, P-O fit is a construct consisting of the elements of a person, an organization, and the perception of fit, match, or suitability between them. Tools have been developed and administered to job candidates during the selection process to measure this perceived fit (e.g., Big Five Personality Test [Barrick & Mount, 1991]; Values Assessment [Values Technology, Inc., 2017]; PRISM [Wood & Roberts, 2006]); however, they measure the perception of various aspects of fit such as value congruence or role identity (Boon & Biron, 2016; Kristof-Brown et al., 2005) rather than measuring fit directly. As Rynes and Gerhart (1990) stated, discussions of fit center around more than simply matching an individual to job requirements, and they invoked such concepts as "chemistry" with the organization or interviewer perceptions of whether an interviewee is the "right type" of person (p. 15).

In addition, recent studies on the concept of fit have begun to consider that fit develops over time and cannot be completely measured during the selection process (Boon & Biron, 2016; Shipp & Jansen, 2011). From a practitioner

standpoint, many organizations do not administer specific assessments and tests to measure perception of fit, but rather use a structured or semi-structured interview process and then use the interviewer's or manager's instinctual measure of perceived fit within the organization (Nolan, Langhammer, & Salter, 2016).

Gender bias is complex and results from a number of attitudinal, behavioral, and cultural factors, but it may be somewhat simplistically defined as the differential treatment of men and women, the impact of which may be positive, negative, or neutral. For research purposes with regard to the selection process of workforce planning, gender bias may be thought of in terms of systematic errors in selection decisions because of gender insensitivity or androcentrism, which is the practice of assigning superior importance to males or to the masculine point of view (Ruiz-Cantero et al., 2007).

The present study sought to discover whether P-O fit considerations are influenced by gender bias such that workers who are hired are similar to those already within the organization, or whether perceived fit and existing biases result in a broadening of cultural and attitudinal characteristics. Workers were interviewed and observed for attitudinal outcomes of job satisfaction and intention to leave an organization, which would be an indication that a relationship exists between fit and bias. The approach used differed from other studies on P-O fit outcomes in that a qualitative method of lived experience within organizations was utilized. The transcendental phenomenological study utilized a comparative case

analysis to determine whether the interaction of P-O fit considerations and gender biases in current practice during selection results in hires who are diverse, satisfied with their jobs, and intend to remain with the organization. As organizations address rapid changes in the workplace, they must allow for considerable flexibility in many areas, but especially in workforce planning, whether for reorganization, downsizing, mergers and acquisitions, or creating positions which do not yet exist but which are needed to address changes or respond to competition (Maurer, 2017; Society for Human Resource Management, 2015). A finding of a positive link between intentionally hiring for P-O fit and gender hires could indicate an enhancement to the overall human resources function, contribution to the organization's goals, mission, and strategy, and resultant greater competitive advantage, which would be a significant contribution to both the research literature and organizational practices.

Background and Rationale of the Study

Within the construct of person-organization fit, 'person' refers to the worker or employee, and 'organization' refers to both the physical layout as well as the culture, climate, behavior, and interactions among and between workers as they strive for a common goal (McNamara, 2017) within a single unit as well as within the organization overall. Person-organization fit is one of many other possible

constructs considered during the selection process of workforce planning. Other types of fit discussed in the literature include person-job fit (Bowen, Ledford, & Nathan, 1991; Nolan, Langhammer, & Salter, 2016; Shipp & Jansen, 2011), person-supervisor fit (Kristof-Brown, Zimmerman, & Johnson, 2005; Shipp & Jansen, 2011), person-group fit (Kristof-Brown, Zimmerman, & Johnson, 2005; Shipp & Jansen, 2011), person-environment fit (Jansen & Kristof-Brown, 2006; Kristof-Brown, Zimmerman, & Johnson, 2005; Shipp & Jansen, 2011), person-culture fit (Van Vianen, 2000), and person-situation fit (O'Reilly, Chatman, & Caldwell, 1991; Shipp & Jansen, 2011).

The present study concentrated on the construct of fit between a person and the organization only, as it is currently utilized in the selection process of workforce planning. The goal was to investigate gender biases and P-O fit considerations through a comparative analysis of two engineering firms, one of which specifically considers P-O fit during selection, and one of which does not intentionally do so. The number of females and males within each firm was observed, and a representative sample of employees were interviewed to obtain their perceptions of the hiring process, whether they perceived fit with the organization, and whether they are satisfied with their positions and intend to remain with the firm.

Previous empirical studies have gathered data mainly through surveys and questionnaires to analyze whether various outcomes could be attributed separately

to P-O fit considerations. For example, a study by Liu, Liu, and Hu (2010) surveyed 259 Chinese public-sector employees who were also part-time students in a Master of Public Administration program and found that P-O fit was a good predictor of job satisfaction and turnover intention. Arthur, Bell, Villado, and Doverspike (2006) conducted a meta-analytic study of P-O fit literature using a data set of 288 correlations from 46 sources to investigate criterion-related validity of P-O fit as a predictor of job performance and turnover. Their findings indicated that P-O fit had only a small relationship with both job performance and turnover intention, and these were partially mediated by work attitudes, which reduced the role of P-O fit as an independent contributor to those outcomes (Arthur et al., 2006).

Blanco dos Santos and Russi De Domenico (2015) performed a similar meta-analytic study that specifically pointed to the need for qualitative studies to understand the individual perception of fit. They found a noticeable absence of both qualitative P-O fit studies and studies which included Latin American authors and subjects. This study strove to contribute to qualitative research focusing on their call for more in-depth qualitative analysis of P-O fit, and it goes a step further in that it incorporates whether gender bias plays a part in selection for fit with an organization.

Individual attributes which contribute to P-O fit considerations include *motivation* (Schuler, 1992; Tett & Burnett, 2003; Wrzesniewski & Dutton, 2001),

aptitude and cognitive ability (de Romrée, Fecheyr-Lippens, & Schaninger, 2016; Society for Human Resource Management, 2016), emotional intelligence (Sy & Côté, 2004), and values such as honesty and integrity (Chatman, 1989; Kristoff, 1996; Morgeson & Dierdorff, 2011).

Gender bias includes some of these same attributes from a slightly different perspective in that hiring managers and recruiters see such attributes as motivation, aptitude, emotional intelligence, honesty, and integrity differentially applied between males and females (Bendick & Nunes, 2012; Cesare, 1996; Elsesser & Lever, 2011; Luzadis, Weslowski, & Snavely, 2008; Prentice & Carranza, 2002).

The present study incorporated an analysis of some of these attributes as they relate to perceptions of fit through the experiences of workers within an organization (Lengnick-Hall, Lengnick-Hall, Andrade, & Drake, 2009). Past research has resulted in inconsistent conclusions regarding the usefulness of P-O fit considerations during selection, mainly due to mediating factors such as those listed above, and specifically with biases such as gender bias, and the lack of isolating intentional, specific use of P-O fit consideration from the myriad other considerations possible during selection. This study explored whether those mediating factors were the result of studies painting too broad a brushstroke in their methodology by concentrating on an in-depth analysis of the lived experiences and perceptions of workers. In addition, it attempted to discover whether P-O fit

consideration and gender bias act in tandem to produce different attitudinal outcomes among hirees.

Statement of the Problem

P-O fit considerations include not only how a person's skills, knowledge, and abilities mesh with the duties and responsibilities of a position, but also how that person is perceived or expected to fit within the department, the culture, and the climate of the department and organization as a whole (Chatman, 1989; Kristof, 1996; Tett & Burnett, 2003). In the workforce planning process, P-O fit considerations have been studied as a means of predicting the kinds of people who would best perform within forecasted positions based on needs that have developed due to technological advances (Maurer, 2017).

Several biases may distort employers' hiring decisions, including biases based on race, ethnicity, national origin, gender, age, disability, and gender orientation (Bendick & Nunes, 2012); however, gender bias in science, technology, engineering, and mathematics (STEM) fields has been particularly problematic (Gurchiek, 2018; Jackson, Hillard, & Schneider, 2014). If gender biases exist in firms hiring with a specific goal of organizational fit, the resulting hires may be more homogeneous and less diverse, which has been shown in past studies to result in stultification of innovation (Chatman, 1989; Kristof, 1996; Schneider, 1987).

The concept of work includes not only duties and tasks that require a particular skillset, but it also includes the overall culture and climate of the organization, incorporating all actual and potential interactions and behaviors workers exhibit which contribute to the mission and strategy (Morgeson & Dierdorff, 2011; Schein, 1996; Schneider, 1987). Researchers have studied the construct of work and P-O fit from the perspective of:

- Interpersonal skills which will integrate best with others in the department
- Behaviors which mesh best with the culture of the department and the organization
- Attitudinal factors preferable for the type of work being forecast
 (Chatman, 1989, p. 333)

Each consideration could impact the type of person needed to fill a position, such as whether a new college graduate or a seasoned veteran in the field would best fit with the particular work being analyzed (Morgeson and Dierdorff, 2011). In addition, biases could impact the type of person who would be considered for selection to that position through the operation of prescriptive gender bias (Luzadis, Wesolowski, & Snavely, 2008). Prescriptive and descriptive gender biases will be defined and discussed later.

The problem with previous P-O fit studies, however, is twofold: first, P-O fit has been measured as one of many factors considered in the selection process,

and second, when quantitatively analyzing data, it is difficult to separate perceptions of fit from other measured attributes (Arthur et al., 2006; Blanco dos Santos & Russi De Domenico, 2015; Yu, 2014). In addition, gender bias has never been studied as a simultaneous factor contributing to selection decisions based on fit with the organization. The study separated and analyzed P-O fit to discover whether gender bias is evident when fit is a specific consideration. This was accomplished through the perspective of those who live and work within an organization by delving into their perceptions and impressions of the selection process, how they perceive fit with their organization, and their self-assessment of job satisfaction and intention to remain with the company.

The goal of the study, then, was to discover whether these lived experiences support P-O fit considerations and whether gender bias has an impact on selection of individuals based on gender. Observing their stated perception of satisfaction and tenure in the organization provided further support to whether gender-based hires are selected for fit—supplementary or complementary (to be defined and described later)—and whether the outcomes justify the methods. In other words, if an engineering firm specifically screens for fit, and they hire women in proportion to the population trained in engineering, the researcher was attempting to determine if there is true fit with the organization through the outcomes of job satisfaction and intention to remain with the organization.

As technology continues to evolve and influence corporate strategy, and as globalization continues to place increased demands for strategic HR, P-O fit considerations may have a positive impact on the overarching function of the organization when screening results in gender-based hires who fit with the firm. The study explored whether enhanced efficiencies gained from workers hired using those considerations, through the perceptions of those workers, male and female, resulted in more satisfied workers who intend to remain with their company vis-à-vis those workers hired without necessarily taking P-O fit into consideration.

Purpose of the Study

The purpose of the present study was to explore the role of personorganization fit within the workforce planning process and determine whether
gender bias was evident in selection. It sought to discover whether there is
evidence of gender bias in selection when specifically considering P-O fit and
whether those workers who are eventually selected by the organization perceive
greater levels of job satisfaction and reduced intention to leave an organization than
those workers who are not necessarily screened for fit with the organization. The
approach utilized a qualitative method studying lived experience within
organizations through a transcendental phenomenological study employing a
comparative case analysis.

The perception of fit is an elusive concept which is often difficult to separate from other attributional considerations (Blanco dos Santos & Russi De Domenico, 2015; Rynes & Gerhart, 1990). A qualitative study consisting of indepth interviews to probe the lived experiences of individual workers as they experienced the selection process and as they experience their current work situations was intended to isolate the construct of P-O fit and explore whether evidence of gender bias in selection exists when workers are hired specifically for fit with the organization. The implication is that finding support for the construct of fit combined with gender bias would result in suboptimal workforce conditions through resultant homogeneity, lack of diversity, and decreased innovation. Conversely, finding a lack of support would be evidenced by a workforce with a stable working environment and culture, which will positively contribute to the organization's mission and provide for the possibility of increased competitive advantage through innovation. Future research could then provide additional support for application of P-O fit over the widest possible range of organizations: public and private, large and small, domestic and international.

Questions that Guide the Research

The present study sought to answer questions regarding the construct of P-O fit, the measurement and application of which has expected outcomes for an

organization in terms of the workers hired, as well as gender bias in hiring decisions, the measurement and application of which may be at odds with the intended goal of hiring for fit. Only the construct of P-O fit is being targeted for study, only gender-based biases are considered, and only the affective outcomes of job satisfaction and turnover intention were probed. Other attributional constructs and intended outcomes are possible; however, the proposed study specifically isolated these factors for in-depth study and analysis. The study concentrated on a single industry in order to preclude a number of potential alternative hypotheses and to test specifically the impact of P-O fit considerations and gender bias during the selection process between similar firms within that industry. In addition to a single industry, the study concentrated on a specific region in the United States (i.e., central Florida in the southeastern U.S.) so that the firms participating in the study were similar not only demographically, but also geographically. Analyses and comparisons therefore provided a measure of consistency and uniformity to help ensure reliability. As such, the questions that guided the subject of this study are:

Research Question:

Do hiring managers at small, for-profit engineering firms in central Florida consider person-organization fit during the selection process, and does that process support gender-based hires?

Subquestion 1: If hiring managers are aware of and intentionally consider P-O fit, do they select more women as engineers than firms which do not?

Subquestion 2: If hiring managers are aware of and utilize P-O fit, is there evidence of greater gender bias in their hiring decisions than firms which do not?

Definition of Terms

Many terms are unique to the strategic human resource management process, especially regarding the construct and application of person-organization fit. Definitions for some terms are not universally accepted and do not have consensus, and multiple definitions are offered throughout the literature; therefore, for the purpose of this study, the researcher will use the following definitions:

Competitive Advantage: Competitive advantage arises when a business creates value for its buyers which exceeds the firm's cost of producing it. Value is what customers are willing to pay, and competitive advantage results when a firm is able to offer something of equivalent benefit for a lower price, or it is able to offer unique benefits which more than offset a higher price (Porter, 1986).

Complementary Fit: A type of person-organization fit characterized by

fulfillment of an individual's psychological needs by the organization (Kristof,

1996). Complementary fit can be thought of in terms of a worker who brings unique or dissimilar skills and values to an organization which add to or complete those already existing within the organization (Bretz & Judge, 1994; Muchinsky & Monahan, 1987; Piasentin & Chapman, 2006; Valentine, 2000; Van Vianen, 2000). **Descriptive Gender Bias:** Stereotyping women and men on the basis of

ascribed characteristics based on group membership, such as caring, nurturing, warm, and communal, versus aggressive, assertive, cold, and agentic (Luzadis, Wesolowski, & Snavely, 2008),

Gender Bias: Gender bias is defined as the differential treatment of men and women, the impact of which may be positive, negative or neutral. For research purposes regarding the selection process of workforce planning, gender bias may be thought of in terms of systematic errors in selection decisions because of gender insensitivity or androcentrism, which is the practice of assigning superior importance to males or to the masculine point of view (Ruiz-Cantero, M.T., et al., 2007).

Hypercompetition: In the fast-paced world of current business, hypercompetition refers to an environment in which competitive advantages are rapidly created and eroded in the face of aggressive competition. Competition on timing and knowledge has intensified, resulting in compressed product design and life cycles (D'Aveni, 2010).

Job Analysis: Job analysis is based on the early work of Frederick Taylor, who developed the concept of management science beginning in 1903 with his book *Shop Management* and furthered his work in 1911 in his book *Principles of Scientific Management* (Taylor, 2003). Job analysis evolved as the identification of the elements of tasks, which are collections of specific actions upon an object or objects which produce a result (Fine & Getkate, 1995) and responsibilities, which are collections of tasks requiring generic behaviors (Cunningham, 1996).

Job Performance: The construct of job performance has been expanded over the past several years to include three separate factors: core task performance, organizational citizenship performance, and counterproductive performance (Ng & Feldman, 2010). Core task performance refers to the basic duties and responsibilities of a job. Organizational citizenship performance (also known as organizational citizenship behavior; see definition in this section) refers to extra behaviors, outside core task performance, engaged in by employees (e.g., helping coworkers), which actively promote and strengthen the organization's culture and effectiveness (Hunt, 1996; Organ, 1988). Counterproductive performance refers to behaviors engaged in by employees that intentionally harm the well-being of the organization's culture and effectiveness (Bennett & Robinson, 2000).

Job Satisfaction: Tett & Meyer (2003) define job satisfaction as one's affective attachment to the job viewed either in its entirety (global satisfaction) or regarding

particular aspects (facet satisfaction; e.g., supervision). According to Wrzeniewski and Dutton (2001), workers have a need for personal control of work activities, creating and sustaining a positive sense of self along with a drive for selfenhancement, and a need for human connection, all of which directly affect job satisfaction. Employees are motivated to work by such needs as autonomy, work meaning, positive self-image, and connection with others. These needs are moderated by the opportunity to craft their own position as well as their individual orientation toward both motivation and work. Thus, workers can shape their jobs and their work environment to provide individual meaning to the work, and in turn, the job and work contexts are likely to change the meaning of the work and the individual's work identity in the process. Thus, the individual worker is able to use discretion which transcends the boundaries of their traditional assignments, tasks, and responsibilities to expand, shape, and innovate within the position to encompass new processes, services, and even new products which will contribute to the organization's competitive position. The result is job satisfaction.

Knowledge, Skills, Abilities, and Other Characteristics (KSAOs): These are the traits and characteristics needed to perform a job adequately. They are defined as:

Knowledge: A body of information needed to perform a task

Skills: The proficiency to perform a learned task

Abilities: A basic capacity for performing a wide range of different

tasks, acquiring knowledge, or developing a skill

Other Characteristics: Includes such personal factors as personality, willingness,

interest, and motivation, as well as tangible factors such as

licenses, certifications, degrees, and years of experience.

(Aamodt, 2013)

Motivation: Various definitions have been applied to the theory of motivation, which encompasses a wide range of concepts and constructs. Applied to business and employees, however, Nohria, Broysberg, and Lee (2008) state that motivation is guided by four emotional needs, or drives. They are the drive to acquire (scarce goods, intangibles such as social status), the drive to bond (with individuals and groups in a cultural setting), the drive to comprehend (satisfy curiosity and master the world around them), and the drive to defend (protect against threats; promote justice and fairness).

Organizational Ambidexterity: Organizations are ambidextrous when they are able to pursue both explorative (discontinuous) and exploitative (incremental) innovation simultaneously (O'Reilly & Tushman, 2004). Exploration centers around searches, experiments, and increases in variance, while exploitation centers around increases in productivity and efficiency, improved execution, and reductions in variance (Junni, Sarala, Taras, & Tarba, 2013; March, 1991).

Organization Analysis: As Singh (2008) suggested, the first step in workforce planning and work analysis should be an environmental scan of the operation of an organization to define broadly the organization's needs regarding both current and future staffing (as well as any gaps between these), whether new positions will need to be created or current positions modified, and consideration of whether an individual- or team-based orientation should be taken regarding work. This overlaps with and integrates position analysis, so the two analyses are not separate processes but rather are synergistically related. Various tools are available for conducting an organization analysis and range from a systematic survey and interpretation identifying relevant events and conditions (Schrenk, 1988) to forecasting using such processes as the Delphi method to combine expert opinion (Linstone & Turoff, 1975) and other forecasting models (Beatty, Coleman, & Schneier, 1988; Sheridan, 1990) as well as the use of subject matter experts to predict future changes and needs (Brannick & Levine, 2002; Sanchez, 1994; Schneider & Konz, 1989).

Organizational Citizenship Behavior: Originally described as extra-role behaviors by Katz (1964), the definition of organizational citizenship behavior (OCB) has evolved to include individual behavior which is not explicitly or directly recognized by an organization's formal reward system but which plays a role in the effective functioning of the organization (Organ & Lindl, 1995). The link between

OCB and job satisfaction has been studied extensively (e.g., Organ & Lindl, 1995; Pavalache-Ilie, 2014).

Organizational Commitment: A strong belief in and acceptance of the organization's goals and values, a willingness to exert effort on behalf of the organization, and a desire to stay with the company (Mowday, Porter, & Steers, 1982; as cited in Tett & Meyer, 1993).

Organizational Climate: Schneider (1987) defined organizational climate as "the ways by which organizations indicate to organizational participants what is important for organizational effectiveness" (p. 448). He differentiated between climate as a functional aspect of an organization, and the meaning behind organizational behaviors within an organization's culture (see Organizational Culture).

Organizational Culture: Schneider (1987) defined organizational culture as the sharing by people within an organization of "a common set of assumptions, values, and beliefs" (p. 448) generally transmitted and understood through myths and stories within the organization. Similarly, Schein (1996) defined culture as "the set of shared, taken-for-granted, implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to its various environments" (p. 236). As such, culture is a collective assessment of values, beliefs, norms, and expectations that affect members of a workgroup or work environment.

Organizational Effectiveness: Organizational effectiveness is a broad concept which measures the extent to which the multiple goals of the organization are met (Amah & Ahiauzu, 2013). It results from employee involvement, including participation in an organization's decision-making process as well as holding a united vision with the organization as a whole, especially regarding values, purpose, and mission. Employee involvement, then, positively influences organizational effectiveness, a finding of Amah & Ahiauzu's (2013) empirical study.

Person-Organization Fit: A synergistic fit between potential workers and the organization, which can be predicted, measured, and applied (Bowen, Ledford, & Nathan, 1991; Chatman, 1989; Kristof, 1996). P-O fit considers such factors as the environment in which the work takes place, including the climate, culture, values, and norms within the organization, as well as worker attributes, traits, and characteristics which will provide the best fit for the organization in general and for the worker specifically.

Position Analysis: Separate from but part of work analysis, position analysis involves a focused analysis of current positions to determine whether any reorganization or elimination of positions is needed as well as determining and preparing for future positions (Singh, 2008). Positions should also be measured and evaluated for the specific KSAOs (see definition above) needed to perform the

work successfully to maximize efficiency and effectiveness while providing a satisfying environment in which to work. Position analysis expands on traditional job analysis and incorporates more trait-based analysis and integration within the organization (e.g., cultural, normative, etc.). A thorough analysis of a position incorporates the *experience* of work with an agentic view such that incumbents within a position perform their work according to a "role identity, past experience, motivation, and personal and professional goals" (Sanchez & Levine, 2012, p. 403).

Prescriptive Gender Bias: How men and women should or should not be or act (Luzadis, Wesolowski, & Snavely, 2008; Prentice & Carranza, 2002). In other words, society prescribes the qualities for a gender role based on traditional social roles and power inequalities between genders (Prentice & Carranza, 2002).

Selection: As applied to the workforce planning process (see definition of workforce planning below), selection is one step in the overall human resources process consisting of organization assessment, work/job analysis, position description, recruitment, selection, hiring, training, development, and performance assessment. Generally, selection will consist of an organization seeking a person for a position based on various skills, abilities, and attributes determined prior to recruitment. As part of the selection process, an applicant will be assessed for the position based on one or more of a combination of measures, including tests of

various abilities (cognitive, motor, interpersonal, etc.), interviews, personality assessments, work samples, and realistic job previews, among others (Bowen, Ledford, & Nathan, 1991).

Strategic Human Resource Management: Strategic Human Resource Management (SHRM) covers the HR strategies adopted by business units and companies and attempts to measure their impacts on performance. Within this field, both design and execution issues are included (Lengnick-Hall et al., 2009). SHRM includes several components, including creating strategic contributions from workers, utilizing technology and structure to contribute to overall SHRM, implementing and executing HR policies to contribute to the competitive nature of the firm, and the overall process and execution of SHRM, among others.

Supplementary Fit: A type of person-organization fit characterized by the congruence between individual and organizational values and which are stable over time (Kristof, 1996). Supplementary fit can be thought of in terms of a worker who brings similar skills and values to an organization which enhance those already existing within the organization (Bretz & Judge, 1994; Muchinsky & Monahan, 1987; Piasentin & Chapman, 2006; Valentine, 2000; Van Vianen, 2000).

Turnover: Turnover is the rate at which an organization loses and gains employees, as well as the duration an average employee tends to remain. "High turnover is associated with instability and inefficiency because it prevents the

accumulation of job-specific knowledge by employees, although some businesses (particularly those relying on large amounts of unskilled, low-paid labor) assume high turnover as a given in their business model. For this reason, when the Bureau of Labor Statistics reports turnover rates, farm labor is typically excluded. While the average turnover rate for all businesses is about 3 or 4 percent over a year, businesses in some industries like hospitality can have normal turnover rates as high as 80 percent" (Turnover, 2015, para. 1).

Turnover Intention: A conscious and deliberate willfulness to leave the organization, often with reference to a specific interval (e.g., within the next six months) and described as the last in a sequence of withdrawal cognitions (Tett & Meyer, 1993).

Work Behaviors: One of the important objectives of the field of organizational behavior is to understand why people behave the way they do. While workers exhibit many different behaviors, both positive and negative, on the job, four major behaviors include job performance, organizational citizenship behaviors, absenteeism, and turnover. Understanding what is meant by these terms and understanding the major influences over each type of behavior clarifies the analysis of other behaviors in the workplace (Organizational Behavior, 2012)¹.

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Workforce Planning: The process an organization uses to analyze its current business strategy and workforce, locate internal pipeline gaps, and determine the steps it must take to fill those gaps by determining future staffing needs (Maurer, 2017; Society for Human Resources Management, 2015).

Significance of the Study

While this study explored a limited number of factors in the selection and hiring process, it served several significant purposes with the potential to contribute to the overall body of knowledge regarding P-O fit. First, it answered a call for qualitative research into P-O fit (Blanco dos Santos & Russi De Domenico, 2015) as previously described. Second, it explored whether P-O fit can be studied independently of other fit factors and whether gender bias can be studied independently of other biases in order to determine whether selection for P-O fit has a greater impact on and results in higher levels of job satisfaction and lower levels of intention to quit than hiring practices which do not consider P-O fit in selection practices. Third, it has the potential to impact downstream HR processes regarding selection and hiring within the workforce planning process. Finally, it has the potential to open a new stream of research regarding the impact of P-O fit and gender bias on workforce planning. In the event P-O fit is not found to impact the selection process significantly, that too would be a contribution to the body of

knowledge which has, in some instances, found limited significance to fit as a factor in the selection process of workforce planning.

Having a better idea of the workers needed in terms of knowledge, skills, abilities, and other competencies (KSAOs) as well as desired traits and behaviors will serve to attract job seekers with the qualities needed and desired for the organization (Sanchez & Levine, 2012). Better information about an organization's HR needs has the potential to significantly impact the way HR departments conduct the hiring process by providing them with up-front information not only about the positions for which they are hiring, but also about the workers they are seeking to fill those positions (Johnston & Vitale, 1988). Strategic HR management requires that the HR department work in conjunction with line managers, management, and leadership to develop policies and implement processes for workforce planning, including linking an organization's people with the strategic needs of the organization (Miles & Snow, 1984; Schuler, 1992). Given the above, exploring the role and impact of P-O fit in the workforce planning selection process could have a significant impact on the overall strategy of an organization.

Assumptions and Limitations of the Study

Exploration of whether P-O fit considerations interact with gender bias relies on the premise that the two constructs—hiring for fit and gender bias—are present in the hiring process and have a bearing on selection. If so, the assumption is that workers hired under this interaction of constructs will be affected by their fit with the organization such that they will experience some level of job satisfaction and turnover intention that is different from that experienced by workers who are not hired for fit with the organization, regardless of whether gender bias also exists.

In addition, a major assumption of the study is that P-O fit can be isolated from other fit considerations during selection, and that the lived experiences of workers will reflect the application of that construct.

Similarly, a major assumption of the study is that gender bias can be isolated from other biases during selection, and that the lived experiences of workers will reflect the application of that construct. The study was designed so that follow-up interviews could further explore both constructs if initial interviews and observations were not able to differentiate these constructs.

A major limitation of the study was, of course, the sample population. The researcher was seeking two specific organizations with similar demographics, industry, and geographical locations, so the diversity of study participants would be limited. The study analyzed the lived experiences of employees of two engineering

firms of equivalent size, industry, number of employees, and geographic location (i.e., the central Florida region of the southeastern United States). As such, the study will have limited generalizability to all industries, organizations, and geographic areas. The researcher anticipates that future studies on this topic would add to the generalizability of results.

Organization of the Remainder of the Dissertation

The remainder of the dissertation is organized as follows:

Chapter 2 thoroughly discusses and explores the existing literature, including research, theory, and studies regarding the constructs of P-O fit and gender bias, and their effect on certain expected attitudinal employment outcomes.

Chapter 3 discusses the methodology that was utilized for the study and includes ethical considerations, research design, methodological approach, and how the study and outcomes could be utilized both within the research community and within organizations. The population sample is explained along with the methodology for selection and inclusion. The chapter discusses the exact procedures and equipment that were utilized during data collection, how the data was analyzed, and steps and measures that were taken to ensure validity and reliability of data.

Chapter 4 summarizes the study and the parameters used as well as discusses the findings. The study results are applied to the research questions to determine whether the findings provide support for them. Themes which emerged from the study, both related to the research questions and new themes, are discussed along with implications and applications for HR practitioners and strategists.

Chapter 5 provides a discussion of the results along with the long-term implications and recommends additional research that could provide support for the themes which emerged from the present study. It discusses the study's contribution to the academic literature on P-O fit, gender bias, workforce planning, and strategic human resource management.

Chapter 2: Literature Review

Person-Organization Fit

History and trends. Although the construct of applicant attraction to and fit with organizations dates back to the 1970s (Byrne, 1971; Tom, 1971; Wanous, 1978, 1980), the construct of person-organization (P-O) fit mainly grew out of the framework first proposed by Schneider (1987) from his Attraction-Selection-Attrition (ASA) framework.

As early as 1947, Lewin posited that behavior (B) is a function of both the person (P) and his or her environment I, resulting in the formula: $B = \int (P,E)$. Conversely, the environment I will be shaped by the interactions of the person (P) and his or her behaviors: $E = \int (P,B)$ (Edwards, 2008). As Lewin suggested, neither the person nor the environment alone could account for an individual's behavior, but the forces interacting together could shape it (Lewin, 1947).

Then, in 1971, Tom proposed that individuals choose to join organizations with similar personality characteristics as a means of expressing and enhancing their self-concept (Tom, 1971). In that same year, Byrne (1971) proposed a similarity-attraction paradigm, which suggested that "individuals are attracted to and seek employment with organizations that exhibit characteristics similar to their own" (Dineen, Ash, & Noe, 2002, p. 724). Both Tom and Byrne studied attraction from the perspective of an organization's appeal to a job applicant as well as

worker attraction to similar others within an organization (Edwards & Cable, 2009). Wanous (1978) expanded on that work through realistic job previews (RJP), which aided applicants to self-select into desirable positions by presenting job and company information to them. The author's model (see Appendix A) proposed a synergy between the worker and the organization which led to a worker's satisfaction or dissatisfaction with their job, moderating the intention to quit or remain with the organization.

Theoretical framework. In 1987, Schneider built upon the work of Tom and Wanous by proposing the ASA framework. The basis for the proposed framework is that "organizations are functions of the kinds of people they contain and, further, that the people there are functions of an Attraction-Selection-Attrition (ASA) cycle" (Schneider, 1987, abstract). The author's premise was that the work environments chosen by workers are similar to the workers who join them. In support of Tom (1971), Schneider (1987) concluded that employees prefer a work environment with the same "personality" profile as themselves and are therefore attracted to both a job and an organization. Thus, "the better the fit between individual expectations and the reality of organizational life, the higher the job satisfaction and the longer the tenure" (Schneider, 1987, p. 442). Conversely, those who do not fit within an organizational environment will tend to leave it. If those workers who leave an organization do so because of poor fit, then those who remain will be even more similar to one another and will become a homogeneous

group, thus producing a restriction in range of organizational behaviors (Schneider, 1987). Using the ASA framework, Arthur, Bell, Villado, and Doverspike (2006) later demonstrated empirically that "employees whose values do not match the organization are more likely to seek other employment" (p. 796). Their study will be discussed in the section on turnover intention.

The individual components comprising the ASA framework will be discussed in detail below, covering some of the many emergent and emerging studies which have surfaced in support of the framework since its introduction. The ASA framework has been used as the basis for a number of "fit" theories, including person-environment fit, which may be further delineated as personorganization fit, person-job fit, person-vocation fit, person-group fit, and person-supervisor fit, all of which seek to demonstrate the compatibility of some aspect of an individual worker with his or her employment relationship (Jansen & Kristof-Brown, 2006; Oh et al., 2014).

To date, the major tool used by both employers and employees to measure both attraction and selection (employer and applicant) has been the employment interview (Chatman, 1991). The interview is used as a means of assessing values congruence by employers, and research suggests that interviewers' comparisons of their perceptions of applicants' values with those of the organization have a significant effect on the selection process (Cable & Judge, 1997). Values, in this context, are defined as enduring beliefs (Judge, Higgins, & Cable, 2006), ideals to

which a worker aspires (Judge & Cable, 1997), or subjective assessments which act to guide behavior (Bodenman, 1996). From an interviewee perspective, applicants are equally concerned with picking the right organization as well as the right job (Kutcher, Bragger, & Masco, 2013). A meta-analysis conducted by Chapman, Uggerslev, Carroll, Piasentin, and Jones (2005) found that an applicant's perceived fit with an organization was positively related to meaningful outcomes in the recruitment process, such as job pursuit intention, organization attraction, and job choice.

The final piece of the ASA framework is whether an employee who selects into (or is selected by an employer into) an organization will remain with that organization or eventually leave it. Turnover and intent to turnover have been studied extensively. Turnover consists of actual quitting behavior and is usually studied in conjunction with voluntarily leaving an organization (as opposed to an organization terminating the employment relationship), while turnover intention is the antecedent to turnover (Tett & Meyer, 1993). Turnover intention is most often studied in conjunction with the moderating factors of job satisfaction and organizational commitment. Tett and Meyer (1993) define these terms as follows:

• Job Satisfaction: One's affective attachment to the job viewed either in its entirety (global satisfaction) or regarding particular aspects (facet satisfaction; e.g., supervision; Tett & Meyer, 1993, p. 261).

- Turnover Intention: A conscious and deliberate willfulness to leave the
 organization, often with reference to a specific interval (e.g. within the
 next six months) and described as the last in a sequence of withdrawal
 cognitions (Tett & Meyer, 1993, p. 262).
- Turnover: The termination of an individual's employment with a given company (Tett & Meyer, 1993, p. 262).
- Organizational Commitment: A strong belief in and acceptance of the organization's goals and values, a willingness to exert effort on behalf of the organization, and a desire to stay with the company (Mowday, Porter, & Steers, 1982; as cited in Tett & Meyer, 1993, p. 262).

Attrition is synonymous with turnover. It is the rate at which an organization loses employees and includes the duration an average employee tends to remain. The implication for businesses is that workers who leave an organization take valuable corporate knowledge with them, and it is expensive to recruit, select, hire, and train new employees (Cho & Lewis, 2012). Employers therefore have a vested interest in hiring employees who fit with the organization, and, in addition, they must undertake a concerted effort to retain those employees. Investment in human capital is one of the largest expenditures for any organization, not only in terms of budget allocations, but also in terms of that organization's pursuit of goals, adherence to its mission, and strategic success. According to Cho and Lewis (2012), workers leave an organization for a variety of reasons, including

lack of training, lack of a proper grievance system to voice concerns, lack of fair and accurate performance appraisals, and lack of meaningful work, to name a few. Age is also a factor, since younger workers are less likely to have found their best fit with a job or organization and are therefore more likely to seek other jobs which better match their skills, interests, and values (Cho & Lewis, 2012; O'Reilly, Chatman, & Caldwell, 1991).

Development of P-O fit from the ASA framework: Building upon Schneider's framework, Chatman (1989) was one of the first to define P-O fit formally, thereby laying the foundation for future P-O fit studies. Chatman defined P-O fit as "the congruence between the norms and values of organizations and the values of persons" (p. 339). The author stated this was useful because it allows an organization "to predict the extent to which a person's values will change...and the extent to which he or she will adhere to organizational norms" (Chatman, 1989, p. 342). Low P-O fit with an organization results in three possible outcomes:

- The person will change his or her behavior and values to conform to the organization;
- 2) The organization's values and norms will change (most likely due to many new members joining the organization with similar values to the low P-O fit person);
- 3) The person will leave the organization.

(Chatman, 1989, p. 343)

Kristof (1996) further defined P-O fit as "the compatibility between people and organizations that occurs when: (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both" (pp. 4-5). The researcher then expanded on this definition by introducing the concepts of supplementary fit, which is defined as the congruence between individual and organizational values and which are stable over time, and complementary fit, which is defined as fulfillment of an individual's psychological needs by the organization (Kristof, 1996). Supplementary fit can be thought of as a worker bringing similar skills and values to an organization which enhance those already existing within the organization, while complementary fit can be thought of as a worker bringing unique or dissimilar skills and values to an organization which add to or complete those already existing within the organization.

O'Reilly, Chatman, and Caldwell (1991) empirically demonstrated that P-O fit predicted individual satisfaction, commitment, and performance, providing support for Schneider's ASA framework. Their study established that high P-O fit with an organization was strongly associated with positive job satisfaction (r = .35, p < .01) and negative intent to leave an organization (r = -0.37, p < .01). Conversely, Schneider (1987), Chatman (1989), and Kristof (1996) all cautioned that extreme P-O fit could result in a myopic perspective, which could lead to stultification of innovation, inability to adapt to changes in the environment, and a lack of diversity resulting from increased "like me" hiring, wherein more and more

employees are hired because of their similar fit with organizational culture, values, and norms.

A number of factors contribute to whether and how a person will fit with an organization, including "self-selection, organizational selection, socialization, personal and work experiences, perceptions, personality, attitudes and type of organization" (Nicol, Rounding, & MacIntyre, 2011, p. 897). Jutras and Mathieu (2016) argued that it is the complex intertwining of these factors over time which lead to the attitudinal outcomes of job satisfaction and turnover intention. In other words, P-O fit should not be measured at a specific point in time or solely for the purpose of decision-making during selection, but it should be one consideration in the selection process. According to Jutras and Mathieu (2016), P-O fit is assessed by job applicants as well, and their perception of fit changes over the course of the recruitment and selection process.

A study by Moynihan and Pandey (2008) considered social networks as influencers of P-O fit regarding turnover intention. While they concluded that intraorganizational social networks limited turnover, they found little support that external social networks had an effect on shaping turnover intention. The authors concluded that organizations should foster P-O fit not only by selecting individuals with a strong fit with the organization and its values, but also by encouraging participation in intraorganizational social networks, and by clearly communicating the organization's mission and goals, as well as clarifying the role employees have

in achieving them (Moynihan & Pandey, 2008). Such efforts result in retention of employees.

Dovetailing with the Moynihan and Pandey (2008) study, a study by De Cooman et al. (2009) concluded that socialization was one of the key factors contributing to the attrition cycle of Schneider's A-S-A framework, in that the lower the perceived match between an employee's values with those of the organization at the time of hiring, the more likely it was that the employee would eventually leave the organization. Socialization contributed to the attrition process by altering employees' values over the course of their tenure at a position. The study demonstrated empirically that work values change over time, with employees' work values becoming less ideological and more self-oriented. Those workers who remained with an organization tended to develop more value congruence over time, increasing the perception of fit with the organization.

Values congruence has been studied extensively with regard to P-O fit and effects on organizational attraction. One such study by Yu (2014) investigated how relationship values, security, prestige, and autonomy contributed to organizational attraction during the selection process and then spilled over into and perpetuated P-O fit perceptions based on work environment and worker relationship expectations. According to Yu (2014), job seekers use signaling theory to make sense of uncertainties regarding organizational values by finding affective qualities in potential employers. Job seekers tended to project or extrapolate their experience

of a potential employer by giving broader meaning to their recruitment experiences. These symbolic attributes could be in the form of organizational efficiency and organizational culture, for example, based on their contacts with recruiters, interviewers, and others involved in the recruitment and selection process. Yu (2014) strongly cautioned, however, that fit perceptions by study participants could actually be attraction rather than fit, and further study is needed to determine whether person-environment fit researchers are assessing the same fit construct or whether they represent fundamental differences in how fit should be conceptualized (Edwards et al., 2006; Schneider, Kristof, Goldstein, & Smith, 1995; Yu, 2009).

Similar findings in a study by Downes, Kristof-Brown, Judge, and Darnold (2017) supported Yu's (2014) study. Downes et al. (2017) concluded that a number of factors contribute to employee retention, many of which are value-driven. First, when employees pursue goals at work which are driven by autonomous motives, they perceive that both they and the organization value similar outcomes. This is the very definition of person-organization fit. Second, since "internalization is one of the core psychological processes underlying fit" (Chatman, 1989), controlling an employee's motives could undermine the perceptions of P-O fit (Downes et al., 2017). Finally, individuals with high P-O fit seek not only to perform a job but also to benefit the organization overall (Downes et al., 2017). As such, Downes et al. (2017) concluded that, the more an employee's value are in sync with those of the organization, and the greater the

autonomy an employee has in performing their job functions, the more likely the employee is to consider themselves compatible with the organization and the more likely they are to remain with that employer.

Integrating an organization analysis approach to selection and fit, Bowen, Ledford, and Nathan (1991) advocated for both person-job (P-J) fit and P-O fit, stating that both were critical to hiring the best people for an organization. The first two steps of their P-O fit model are pertinent to this discussion. These are as follows:

Table 1
Bowen-Ledford-Nathan Selection Model: Hiring for P-O Fit (First Two Steps)

1. ASSESS THE OVERALL WORK ENVIRONMENT

- Job Analysis
 - Organizational Analysis

2. <u>INFER THE TYPE OF PERSON REQUIRED</u>

- Technical Knowledge, Skills and Abilities
- Social Skills
- Personal Needs, Values, and Interests
- Personality Traits

Note. Adapted from "Hiring for the organization, not the job," by D.E. Bowen, G.E. Ledford, & B.R. Nathan, 1991, *The Executive*, 5(4), p 37.

Bowen et al. (1991) stated that job analysis data can quickly become outdated in a rapidly changing, hypercompetitive market, necessitating an organization analysis

be done concurrently to find the best people for the organization. The analysis of both the organization and the position should be used to infer the behaviors and traits, as well as knowledge, skills, abilities, and other characteristics (KSAOs) which will provide maximum fit for the organization. The results of such analyses can be used to hire employees who provide the best fit with both the position (P-J fit) and the organization (P-O fit).

Bowen et al. (1991) worked within the theoretical framework of measuring P-O fit during selection, and their work provides a basis for applying P-O fit considerations during that process; however, practitioners often do not measure P-O fit during selection at all or consider it only as an instinctual perception (Nolan, Langhammer, & Salter, 2016). In addition, recent research has suggested that P-O fit may be more temporal and therefore may not best be measured during selection (Boon & Biron, 2016; Shipp & Jansen, 2011). As mentioned above, research has determined that values change over time, and employees with longer tenure tend to align more closely with corporate values (Downes, et al. 2017). This does not mean P-O fit should never be considered during selection, however, and the current study looked to support whether P-O fit considerations during the selection process do, in fact, lead to improved long-term affective outcomes. As mentioned above, both applicants and hiring officials tend to form fit perceptions during the recruiting and selection process, and whether it is deemed attraction or fit, such perceptions have been shown to have an effect on eventual employment decisions,

both from a job offer and job acceptance standpoint (Edwards et al., 2006; Schneider, et al., 1995; Swider, Zimmerman, & Barrick, 2015; Yu, 2009).

Given that position analysis incorporates such traits as motivation, role identity, and the personal and professional goals of the eventual selectee, and considering that work context provides trait-relevant cues across tasks, social environments, and organizational culture (Tett & Burnett, 2003), considering P-O fit during selection may provide an interviewer with attributional qualities of an applicant that could lead to better workers in terms of satisfied employees who perform well and are less likely to leave an organization. The long-term implications for the organization, therefore, could include attitudinal outcomes such as increased job satisfaction or reduced intent to turnover, both of which are measurable. Other outcomes are certainly possible, including operational and behavioral outcomes such as increased productivity, enhanced organizational ambidexterity, organizational adaptability, and organizational effectiveness. Other attitudinal and affective outcomes include organizational commitment, needs fulfillment, work-life balance, and goal attainment. These outcomes have all been studied in relation to P-O fit; however, they were not considered in the present study, which pursued an answer to the question of whether fit considerations during selection lead to the attitudinal outcomes of satisfaction with one's position and organization, making it less likely that person will leave the organization.

Measuring P-O fit. Several tools may be used to measure P-O fit during the selection process. First, however, a discussion of the various types of fit is necessary. As has been previously mentioned, P-O fit is often further delineated into supplementary fit and complementary fit (Kristof, 1996), where supplementary fit occurs when an individual's characteristics are similar to those of the organization, and complementary fit occurs when an individual fills a void or adds something missing to an organization (Bretz & Judge, 1994; Muchinsky & Monahan, 1987; Piasentin & Chapman, 2006; Valentine, 2000; Van Vianen, 2000). In addition, researchers have defined P-O fit from a needs-supply and demandsabilities perspective, where needs-supply fit occurs when an individual's needs are supplied by the organization, and demands-abilities fit occurs when an individual's abilities meet the demands of the organization (Judge & Ferris, 1992; Kristof-Brown, Barrick, & Stevens, 2005; Piasentin & Chapman, 2006; Verquer et al., 2003). Assessments of P-O fit depend on which type of fit is being considered and whether assessments are measuring values congruence, personality congruence, goal congruence, or KSA (knowledge, skills, and abilities) congruence (Piasentin & Chapman, 2006). Knowledge of which dimension of P-O fit is the focus for an organization or an individual will improve understanding of how P-O fit relates to various outcomes. The affective outcomes of job satisfaction and turnover intention are the focus of the present study.

While standardized assessments such as the Values Assessment (Values Technology, Inc., 2017), Big Five Personality Test (Barrick & Mount, 1991), and PRISM (Wood & Roberts, 2006) are often used to measure an applicant's fit with an organization, an empirical study by Nolan, Langhammer, and Salter (2016) demonstrated that non-standardized assessments were preferred by practitioners to evaluate P-O fit, while standardized assessments were generally preferred to evaluate person-job (P-J) fit. The assessments they studied were as follows:

Table 2
Standardized and Non-Standardized Assessment Tools for P-O & P-J Fit

Standardized	Non-Standardized
Intelligence Tests	Unstructured Interviews
Personality Inventories	Social-Networking Websites
Work Samples	Reference Checks
Structured Interviews	Resumes/Cover Letters

Note. Adapted from "Evaluating fit in employee selection: Beliefs about how, when, and why" by K.P. Nolan, K. Langhammer, N.P. Salter, 2016, *Consulting Psychology Journal: Practice and Research*, 68(3), p 237.

Judge and Cable (1997) examined the relationship between applicant personality, organizational culture, and attraction. They found that the Big Five personality traits (neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness) were most related to organizational culture preferences and attraction to an organization. The authors found that the antecedents of P-O fit were more often related to individual experiences, which established ingrained values and preferences of workers. Workers' experiences depended on several factors such as country of origin (Hofstede, 1980), education and vocation (Kohn & Schooler, 1978), organizational socialization experiences (Chatman, 1991), and personality traits, which directed personal choices and behaviors (Cattel, 1943; Hogan, 1991). Because of the intricate and interwoven factors affecting P-O fit, standardized assessments are of limited value in determining person-environment

fit, leading Nolan et al. (2016) to conclude that practitioners' preference for non-standard assessments to determine P-O fit were justified.

Nolan et al. (2016) evaluated perceived influence of P-O and P-J fit on various work outcomes and found strongly positive relationships. The work outcomes they tested were:

Table 3

Outcomes of P-O and P-J fit on Job Performance and Affective Well-Being

Job Performance	Affective Well-Being
Task Performance	Job Satisfaction
Involvement	Organizational Satisfaction
Leadership	Organizational Commitment
Physical Health	Mental Health
	Prosocial Behaviors
	Coworker Relationships
	Job Tenure

Note. Adapted from "Evaluating fit in employee selection: Beliefs about how, when, and why" by K.P. Nolan, K. Langhammer, N.P. Salter, 2016, *Consulting Psychology Journal: Practice and Research*, 68(3), p 240.

Thus, Nolan et al. (2016) found a strong relationship between P-O fit considerations during the selection process and the attitudinal outcomes of job satisfaction and intention to remain with the company (job tenure).

In a meta-analytic study, Piasentin and Chapman (2006) identified three significant drawbacks to measuring P-O fit:

- 1) How P-O fit is conceptualized;
- 2) The operational definition of an organization; and
- 3) The specific content domain used to assess fit

(Piasentin & Chapman, 2006)

In their study, Piasentin and Chapman (2006) found that the dominant conceptualization of P-O fit was the supplementary fit model, defined above by Kristoff (1996) as the congruence between individual and organizational values and which are stable over time. Of the 46 studies they reviewed, 40 (87%) had at least one survey item pertaining to perceived similarity with the organization, and 13 of the studies (28%) measured P-O fit solely from a supplementary perspective (Piasentin & Chapman, 2006).

The definition of the organization component in the person-organization fit construct tended to be operationalized in one of two ways, according to Piasentin's and Chapman's (2006) analysis: (a) by asking employees to consider the characteristics of the organization (e.g., values, mission), and (b) by asking employees to consider the people within the organization. The latter is the definition conceptualized by Schneider, Goldstein, and Smith (1995), who argued that, because people make up the organization, the organization should not be conceptualized separately from the individuals interacting and behaving within it.

The final source of variability in P-O fit studies, according to Piasentin and Chapman (2006), is the specific domain used to assess fit. The most common was assessment of values congruence (78% of studies analyzed), followed by personality fit (41%) and goal congruence (20%). Piasentin and Chapman (2006) therefore concluded that "knowledge of the extent to which individuals focus on different dimensions of P-O fit (i.e., 'fit style') may improve our understanding of how P-O fit relates to work outcomes" (p. 212).

P-O fit considerations delve more deeply into the worker's experience, including contextual elements which may require an employee to modify the demands of the position to account for responses to as-yet undefined tasks and responsibilities (Sanchez & Levine, 2001; Sanchez & Levine, 2012). Therefore, even though Sanchez and Levine's work centered mainly on job and work analysis, they provided some tacit support for P-O fit considerations as well.

In summary, considering P-O fit during selection has extensive support in the literature, with results that indicate hiring employees who will fit both the position and organization better will eventually lead to those employees' overall job satisfaction and productivity while reducing their intention to leave. This can be accomplished in a few ways using the ASA framework.

Attraction: The recruiting/interview process. Fit with a particular position (P-J fit) is most often determined by matching applicants' knowledge, skills, and abilities (KSAs) against specific job requirements (Kristof-Brown,

2000). Some researchers, however, have suggested that KSAs may also affect how well recruiters perceive an applicant's fit with the organization (Bretz, Rynes, & Gerhart, 1993; Rynes & Gerhart, 1990), citing recruiters' consideration of such characteristics as grade point average (GPA), "job-related coursework, work experience, articulateness, and interpersonal skills as the basis for their judgments of P-O fit" (Kristof-Brown, 2000, pp. 645-646).

In addition to KSAs, Kristof-Brown (2000) found that perception of fit with the organization was most often determined through assessment of personality and values rather than KSAs, which was later supported by Nolan, Langhammer, and Salter (2016). In her study of recruiters from four mid-Atlantic consulting firms, Kristof-Brown (2000) found that 100% of recruiters used personality traits as a measure of P-O fit, and 65% of recruiters used values as an indicator of P-O fit.

As mentioned previously, Yu (2014) found that job seekers tended to project or extrapolate their experiences of a potential employer by giving broader meaning to their recruitment experiences. Judge and Ferris (1992) suggested that recruiters may contribute to those fit perceptions by using themselves as benchmarks to assess P-O fit, thereby projecting the very characteristics they are attempting to determine onto the job seekers. For example, if a recruiter is attempting to portray their organization as efficient, the job seeker may internalize that and compare it with their own values in seeking employment at an efficient organization, thereby enhancing the attractiveness of the organization to the job

seeker. This is why Yu (2014) strongly cautioned that fit perceptions by job seekers could actually be attraction rather than fit.

Both recruiters and job applicants assess initial fit during the recruiting process, which impacts organizational attraction on both sides. Further, that assessment changes as the recruitment process develops. Swider, Zimmerman, and Barrick (2015) studied the recruitment process from job seekers' perspective as they differentiated among and between organizations. Fit perception was gauged both initially and at various stages throughout the recruitment process, along with its impact on job choice. The study found that as job seekers' perceptions of P-O fit increased, their selection utility improved, resulting in lower selection ratios due to such factors as deciding to apply to an organization, agreeing to employment testing, and deciding to accept a job offer when extended by an organization. In other words, as certain organizations became more attractive to a job seeker, other organizations with which the job seeker did not perceive the same level of fit, were dropped from consideration. Referring back to the study by Dineen, Ash, and Noe (2002), who found that job applicants are attracted to organizations with similar characteristics to themselves, the Swider, Zimmerman, and Barrick (2015) study has implications for organizations and recruiters to present themselves in the most positive light in order to attract job applicants. The reasoning is that Swider et al. (2015) found that job seekers make fit assessments of organizations even before they apply for a job. Since much of recruiting is now done electronically, Dineen

et al. (2002) found that how an organization presents itself, whether electronically, in print, or in person, both in terms of the organization itself and the advertised position, has an affective impact on job seekers.

Fit with a worker's environment has been shown to have a positive effect on a number of applicant preferences and behaviors, and the outcomes suggest that "those who fit are more likely to be attracted to the organization, be favorably evaluated by established organizational members, display greater work motivation, and perform better than those who do not" (Bretz & Judge, 1994, p. 49).

Selection: Culture, climate, behavior, values. As discussed above, P-O fit considers several factors in the overall work environment as well as with the individual being contemplated for a position. The climate and culture of the organization must be considered in addition to relationships among and between individuals and the behavioral and affective outcomes desired. Schneider (1987) defined climate as "the ways by which organizations indicate to organizational participants what is important for organizational effectiveness" (p. 448). This definition was updated in 2013 to "the shared perceptions of and the meaning attached to the policies, practices, and procedures employees experience and the behaviors they observe getting rewarded and that are supported and expected" (Schneider, Ehrhart, & Macey, 2013, p. 362). Schneider (1987) defined culture as the sharing by people within an organization of "a common set of assumptions, values, and beliefs" (p. 448) generally transmitted and understood through myths

and stories within the organization. This definition was updated in 2013 to "the shared basic assumptions, values, and beliefs that characterize a setting and are taught to newcomers as the proper way to think and feel, communicated by the myths and stories people tell about how the organization came to be the way it is as it solved problems associated with external adaptation and internal integration" (Schneider, Ehrhart, & Macey, 2013, p. 362). Schneider therefore differentiated between the functional aspect of the organization's climate and the meaning behind organizational behaviors within the organization's culture. Schneider, Goldstein, and Smith (1995) expanded on this by stating that people join entire organizations regardless of whether that is their realization at entry, and they leave an organization—not just their job—because of dissonance with the structure, processes, climate, and culture. Voluntary turnover will be discussed in greater detail shortly.

Schein (1996) defined culture as "the set of shared, taken-for-granted implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to its various environments" (p. 236). As such, culture is a collective assessment of values, beliefs, norms, and expectations that affect members of a workgroup or work environment. A cohesive organizational culture contributes to positive organizational behaviors.

Schneider, Ehrhart, and Macey (2013) stressed that organizations have multiple, simultaneous climates for both processes and strategic outcomes, but very

little research has been done on multiple organizational climates. In addition, the authors also differentiated among three types of organizational cultures. The first is an integrationist view that organizations have one shared culture across all employees and units. Conflict, aberrations, differences, and ambiguities are generally disregarded in the integrationist culture or are seen as something that must be fixed. The second type of culture is the fragmented view in which ambiguity and differences are embraced, and sharing a culture is specifically denied. In the fragmented culture, it is seen as unlikely that people in an organization, with different personalities and different experiences within the organization would attach the same meaning to the organization and what it values. The third type of culture is the differentiated view, which seeks a compromise between the integrationist and fragmented perspectives. The differentiated culture is seen as having multiple subcultures, in which people have different experiences and may even attach different meaning to the same events. At least one author (Martin, 2002) has advocated for the existence of all three types of cultures simultaneously, although Schneider et al. (2013) proposed that it is more helpful to think in terms of a general culture (integrationist), subcultures (differentiation), and culture strength (fragmentation). Schein (2010) also proposed three levels of culture within an organization, consisting of artifacts, espoused beliefs and norms, and underlying assumptions. In this framework, the artifacts level of culture represents "the outer layer and include[s] rituals, language, myths, dress, and the

organization of space" (Schneider et al., 2013, p. 371). Espoused beliefs and norms are the values of the organization which may or may not be ascribed to by all members of the organizations. The underlying assumptions of organizations indicate why its people do what they do on a daily basis at the organization. This level is usually so ingrained within the organization that it may not be easy for organizational members to articulate this level of culture. Finally, Moraes de Sousa and Barrerios Porto (2015) also differentiated among three types of cultures, the first of which is the clan-type culture, in which the emphasis is on affiliation, bonding, collaboration, trust, and support. It is this type of culture that is most strongly associated with job satisfaction. The second type of culture is the adhocracy, which values growth, stimulation, variety, autonomy, and attention to detail, and the final type of culture is the market culture, in which communication, competition, excellence, competence, and achievement of objectives are stressed (Moraes de Sousa & Barrerios Porto, 2016).

Groysberg, Lee, Price, and Cheng (2018) defined culture as "the tacit social order of an organization [which] shapes attitudes and behaviors in wide-ranging and durable ways" (p. 46). Culture is a shared phenomenon which permeates multiple levels across an organization. According the Groysberg et al. (2018), culture is enduring and is hard-wired into the organization, meaning that people recognize and respond to corporate culture instinctively. This differs from climate,

in that climate is both overt and purposefully learned and recognized. The authors identified eight distinct culture styles, including the following:

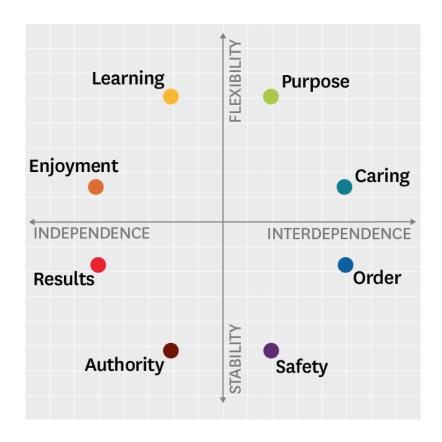
- Purpose-driven
- Caring
- Order
- Safety
- Authority
- Results-driven
- Enjoyment
- Learning

(Groysberg et al., 2018, p. 47)

Among the companies studied, results-driven (89%) and caring (63%) cultures were the dominant cultural styles.

Organizational cultures depend on how people interact and how they respond to change, and cultures vary by industry and location, according to Groysberg et al. (2018). A summary of the types of organizational cultures appears below:

Figure 1 Integrated Culture Framework



FROM "THE LEADER'S GUIDE TO CORPORATE CULTURE," BY BORIS GROYSBERG, JEREMIAH LEE, JESSE PRICE, AND J. YO-JUD CHENG, JANUARY-FEBRUARY 2018

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Note. Adapted from "The leader's guide to corporate culture: How to manage the eight critical elements of organizational life" by B. Groysberg, J. Lee, J. Price, J. Yo-Jud Cheng, 2018, *Harvard Business Review*, 96(1), p 47.

With an emphasis on organizational culture, it would appear to be critical to hire employees who fit with it, since culture can become a liability to an organization when it is misaligned with strategy (Groysberg et al., 2018). In a

phrase attributed to management expert Peter Drucker, "culture eats strategy for lunch," Ford (2007) explained that this translates to the fact that companies can strategize in order to grow or to reverse negative trends; however, culture is of critical importance to the long-term success of an organization, since strategic efforts are unlikely to succeed if the organization's culture does not support its goals and mission.

In a study on work cultures and work-role behaviors, Morgeson and Dierdorff (2011) linked person attributes to work-role behaviors across domains and concluded that there is validity in the research on work cultures and relationships in various work roles, although they concluded that additional research is needed to link work contexts such as social interactions with role behaviors. This has implications for fit, since an organizations values, culture, and social interactions have been linked to perceptions of P-O fit. They also pointed to a body of work linking the specific area of organizational citizenship behavior (OCB) with work role expectations and found studies that supported how role definitions impact whether workers will engage in OCB (Haworth & Levy, 2001; Hui, Lam, & Law, 2000; Kamdar, McAllister, & Turban, 2006; McAllister, Kamdar, Morrison, & Turban, 2007). They thus considered the major linkages between culture, climate, behavior, and values, all of which are pertinent to the construct of P-O fit.

Numerous studies have operationalized P-O fit as the perception of congruent values between the worker and the organization. O'Reilly, Chatman, and Caldwell (1991) conducted an empirical study which determined that the fit between a person's values and those of the organization for which they work is associated with behavioral and affective outcomes, notably longer tenure. Van Vianen (2000) proposed a match between the characteristics of people within the organization as P-P fit, positing that researchers would be wise to focus on the characteristics of a person's fit with the people in an organizational culture (e.g., preferences, values, attitudes, personality) in addition to a person's fit with the organization as an entity. The author defined P-P fit as person-culture fit, and stated that P-P fit "refers to the homogeneity of characteristics of people, that is, interpersonal similarity" (Van Vianen, 2000, p. 117) and also that initial fit with an organization should be assessed via P-P fit based on the similarity between a new employee's cultural preferences and the organization's culture as perceived by his or her recruiters. Van Vianen (2000) argued that matching persons with organizations is a restricted operationalization of the ASA model (Schneider, 1987; Schneider, Goldstein, & Smith, 1995), and values (operationalized as preferences) are important components in the evaluation of P-O fit because they are fundamental and relatively enduring, and they serve to guide individual attitudes, judgments, and behaviors (Chatman, 1989, 1991).

A similar study by Cennamo and Gardner (2008) investigated generational differences in work values, job satisfaction, affective organizational commitment, and intention to leave the organization. While the study found that the youngest generational group placed more importance on status and freedom values than older groups, there were no other generational differences in fit with the organization.

As with other studies, the Cennamo and Gardner (2008) study found that poor fit with an organization resulted in decreased job satisfaction and higher intention to leave, and this was true across all generations.

Another study of integrating new employees with an organization's culture was conducted by Cable, Aiman-Smith, Mulvey, and Edwards (2000). During initial socialization, entrants learn about culture through the lens of their own conceptions, expectations, and experiences. They learn about organizational culture through company information, product information, prior experience with the organization, and word of mouth (e.g., through social networks outside the company). The study found mixed results in the strength of the various information sources and new workers' enculturation. What the study did find is that accurate information about the company is more important than positive information, since "the short-term benefits of beguiling applicants may be offset by consequent turnover, poor fit, and lower commitment" (Cable et al., 2000, p. 1083).

A study of the socialization aspects of P-O fit conducted by Cooper-Thomas, van Vianen, and Anderson (2004), explored actual and perceived P-O fit to organizational newcomers both before and after socialization. The results indicated that socialization does not change newcomers' values, but it does change their perception of the organization's values, resulting in an increase in both actual and perceived fit after socialization. The authors operationalized actual (objective) P-O fit as the measure of the organization's actual values as compared with individuals' own values (van Vianen, 2000), and they operationalized perceived (subjective) P-O fit by asking individuals to evaluate their fit with the organization. Most studies of P-O fit use subjective measures, because findings consistently indicate that perceived fit with various environmental characteristics is a better predictor of attitudes and behaviors than fit with actual characteristics (Cable & Judge, 1997; Kristof-Brown & Stevens, 2001). The results of the study by Cooper-Thomas et al. (2004) indicated that socialization contributed to perceived fit, job satisfaction, and organizational commitment.

Tett and Burnett (2003) studied trait-relevant cues based on elements of the work environment (task, social, and organization) as influencers of work behavior which produce both intrinsic and extrinsic rewards. They identified five key points when considering personality traits relevant to prediction of behavior in the performance of work, which can be applied to P-O fit considerations, including:

 within-person consistencies allow future behavior to be predicted based on past behavior;

- between-person uniqueness creates a need for trait descriptions which can be incorporated into future job descriptions and considered when selecting and hiring certain individuals;
- understanding what triggers latent potential traits in order to understand the role of personality in the workplace and work context;
- 4) trait inferences which are interpretations of overt behavior and can be used to infer the "type" of individual needed for a position.
- 5) trait expression which is context-dependent and requires an understanding of the situational features of a position to be able to interpret and predict work behaviors.

(Tett & Burnett, 2003, p. 502)

While their model was geared more toward the pre- and post-hiring phases of the overall human resources management (HRM) process, their definitions and attributions mesh well with the culture, climate, behavior, and values considerations needed when contemplating P-O fit in the workforce planning process.

Attrition: Satisfaction, turnover, and intent to turnover. As will be discussed in the next section, job satisfaction and turnover intention are inextricably linked. It is nearly impossible to discuss employee turnover without also discussing whether a worker is satisfied with their work-role behaviors, since job satisfaction is a key antecedent of voluntary turnover (Lambert, Hogan, &

Barton; 2001). Therefore, it is also important to discuss person-organization fit in the context of the outcomes of worker satisfaction and turnover intention.

A study by Chew and Chan (2008) found that intention to remain with an organization was significantly related to P-O fit considerations, remuneration, recognition, training, and career development, while challenging assignments were not significantly related to retention. If an employee's needs, expectations, desires, or preferences were met, he or she tended to remain with an organization.

Alternatively, if that reciprocity exchange was not met, the employee tended to be less committed to the organization and might form an intention to leave (Chew & Chan, 2008).

Actual quitting behavior is the primary focus of most employers and researchers; however, intention to quit has been studied as a strong indicator of and good proxy for the actual behavior (Cho & Lewis, 2012). Turnover intention is also easier to measure in terms of study questionnaires, surveys, and interviews. As a caution, however, turnover intention does not always lead to turnover behavior, and actual turnover is influenced and mediated by a number of factors, including job stressors, commitment, and organizational citizenship behaviors (Andrews, Baker & Hunt, 2011; Boon, Den Hartog, Boselie, & Paauwe, 2011; Chen, Sparrow, & Cooper, 2014; Firth, Mellor, Moore, & Loquet, 2004; Mitchell, Hotom, Lee, Sablynski, & Erez, 2001), locus of control (Allen, Weeks, & Moffitt, 2005; Firth, Mellor, Moore, & Loquet, 2004; Wrzseniewski & Dutton, 2001),

precipitating events (Mitchell, Hotom, Lee, Sablynski, & Erez, 2001), professional identity, defined as "the extent to which employees perceive their profession as central to their self-concept" (Van Dick & Wagner, 2002; as cited in Wen, Zhu, & Liu, 2016, p. 1234), supervisor support (Chen, Sparrow, & Cooper, 2014), and work environment (Lambert, Hoban, & Barton, 2001).

A study by Lambert, Hogan, and Barton (2001), found that the work environment is one of the key factors contributing to job satisfaction, and that job satisfaction strongly negatively affects turnover intention, a finding which was also confirmed by Firth, Mellor, Moore, and Loquet (2011). Stated another way, job tenure is a basic indicator of job satisfaction because of the stable correspondence between an employee's satisfaction with their work environment and organization, and the reciprocation by the organization and organizational environment (Bretz & Judge, 1994). In such a state, employees are reluctant to leave an organization unless a negative mitigating factor intervenes. This will be discussed in greater detail below.

Gender Bias in Selection

Definitions: Various aspects of gender bias in the selection process have been studied extensively. These include descriptive versus prescriptive gender bias (Fuchs, Tamkins, Heilman, & Wallen, 2004; Luzadis, Wesolowski, & Snavely,

2008; Prentice & Carranza, 2002), implicit and explicit gender bias (Jackson, Hillard, & Schneider, 2014; Levin, Rouwenhorst, & Trisko, 2005; Rice & Barth, 2016; Woodzicka & LaFrance, 2005), and influence of gender bias on other employment constructs such as commitment and tenure (Carless, 2005). As such, it is difficult to define gender bias because of the subtleties of these various aspects. Indeed, something as simple as the distinction between sex and gender has been debated in the literature. While there has been a tendency to use sex and gender interchangeably, Mills (2011) explained that the American Psychological Association distinguishes gender as cultural and is to be used when referring to women and men in social groupings, whereas sex is biological and is to be used predominantly for biological distinctions. Similarly, Mills (2011) states that the World Health Organization distinguishes sex as the biological and physiological characteristics of men and women, while gender is societal and refers to socially constructed roles, behaviors, activities, and attributes for men and women. Mills disputes both definitions, however, thus perpetuating the confusion over which term should be used in which context. For the current study, gender bias will be used as the descriptive term, based on the argument that gender roles and identification have become more culturally based, and how a job candidate presents themselves on a resume, job application, and interview takes precedence over biological distinctions (Luzadis, Wesolowski, & Snavely, 2008).

Gender bias can be defined as the differential treatment of men and women, the impact of which may be positive, negative, or neutral. For research purposes with regard to the selection process of workforce planning, gender bias may be thought of in terms of systematic errors in selection decisions because of gender insensitivity or androcentrism, which is the practice of assigning superior importance to males or to the masculine point of view (Ruiz-Cantero et al., 2007). Gender bias may be further subdivided into descriptive gender bias, which is stereotyping women and men on the basis of ascribed characteristics based on group membership, such as caring, nurturing, warm, and communal, versus aggressive, assertive, cold, and agentic (Luzadis, Wesolowski, & Snavely, 2008), and prescriptive gender bias, which is concerned with how men and women should or should not be or act (Luzadis, Wesolowski, & Snavely, 2008; Prentice & Carranza, 2002). Prescriptive bias is most often indicated by decision-makers requiring higher expectations for women than for men on the same decision criteria, thus shifting the normative reference point (Luzadis, Wesolowski, & Snavely, 2008). Prescriptive gender bias is most often the underlying form of implicit bias in selection decisions. If biases were explicit, such selection decisions would be a breach of the principle of gender equity and would be grounds for sexual discrimination lawsuits (Levin, Rouwenhorst, & Trisko, 2005).

Gender bias in selection. Bias in the selection process of workforce planning can take many forms. Gender bias is one form, and it is difficult to

measure because of a number of factors which affect it, including the gender of the evaluator or interviewer in addition to the gender of the candidate, type of position (predominantly male sex-typed or female sex-typed), perceived competence of the candidate, number of applicants for a position, and even the perceived attractiveness of the candidate. The literature supporting the contention that female job applicants are unfairly subjected to gender bias in the selection process is large (Bendick & Nunes, 2012; Elsesser & Lever, 2011), although the level of such support is mixed. In fact, one meta-analytic study by Cesare (1996) found no statistical significance in preferences for one gender over another in the selection process when viewed collectively, especially when conducted in field settings utilizing actual job applicants.

Several studies have found a correlation between job type and interviewee gender (Cesare, 1996), with most finding that female job applicants will generally receive lower ratings than males when the available position is traditionally considered male dominant (e.g., engineer, police chief), while male applicants will generally receive lower ratings than females when the available position is traditionally considered female dominant (e.g., nursing supervisor, child care worker, administrative assistant; Cesare, 1996). A study by Uhlmann and Cohen (2005), found that evaluators who reviewed candidate information prior to developing hiring criteria favored congruency between candidate gender and job sex-type. Luzadis, Wesolowski, & Snavely (2008) suggested that decision-makers

may downplay objective criteria in order to recommend a candidate whose gender is not traditional for the position. This rationalization of hiring decisions may help explain why women applying for traditionally male-dominated jobs are less likely to be selected despite their qualifications, since justifying their selection requires additional explanation (Luzadis, Wesolowski, & Snavely, 2008).

Long-standing and voluminous research exists to support the assertion of gender bias in hiring decisions. One such study by Rice and Barth (2017) examined the effects of and found evidence for the "interaction between the activation of gender role stereotypes, explicit gender role beliefs, and occupation stereotypes on the evaluation and decision to hypothetically hire an employee" (p. 98). Their study found that female applicants were strongly preferred over males for female sex-typed positions, while male applicants were strongly preferred over females for male sex-typed positions. When evaluators held less traditional gender role beliefs, however, they exhibited less gender bias in evaluations of applicants.

Another study by Levin, Rouwenhorst, and Trisko (2005) studied gender bias both during formation of a final pool of candidates to be interviewed and at final selection choice. The study asked participants to assume the role of manager at a software manufacturing company, so hires would be in traditionally male sextyped positions. The authors found no significant evidence of gender bias when selecting the interview pool; however, gender bias was present at final selection.

Perceived competence is another factor which produces gender bias in selection. Competence is defined as an individual's intelligence, power, efficacy, and skill (Cuddy, Glick, & Beninger, 2011). A long-standing body of literature has linked perceived competence with gender bias in hiring. For example, female applicants for a position advertised with adjectives such as analytical, technical, or fast-paced will be disadvantaged due to their membership in a social category viewed as unfavorable to male sex-typed jobs (Heilman & Okimoto, 2007). A study by Pinto, Patanakul, and Pinto (2017) found a gender bias in a maledominated job (project manager) only when perceived technical competence was low. In that instance, male applicants were much more likely to be hired over equivalent female applicants. On the other hand, when perceived technical competence was high, women were actually favored over men.

While applicant attractiveness is also a factor contributing to gender bias in selection, it is not considered in relation to the current study because of its predominance in psychological rather than business fields of study.

Gender bias in STEM fields. Women entering traditional male sextyped positions in science, technology, engineering, and math (STEM) fields often experience bias and inequity at all levels of the workforce planning process as well as after hire. A recent study by the Pew Research Center (Gurchiek, 2018) found that half of 1,225 women in STEM jobs experienced one or more of eight forms of discrimination in the workplace, as compared to 19% of men in STEM

occupations. In another example, women in the United States earn 42% of Ph.D.s in science and engineering, yet they hold only 28% of tenure-track faculty positions in those areas (Jackson, Hillard, & Schneider, 2014; National Science Foundation, 2013a; National Science Foundation, 2013b).

When women enter a STEM or other traditionally male sex-typed job, they are held to different evaluative standards and have a harder time pursuing employment and promotion in those fields (Rice & Barth, 2017). The types of bias they experience can include prescriptive gender stereotyping, benevolent or hostile sexism, social identity threat, and implicit gender-stereotypical cues in the environment (Jackson, Hillard, & Schneider, 2014), which negatively affect hiring, retention, promotion, and job satisfaction. A study by Jackson, Hillard, and Schneider (2014) suggested that diversity training can help mitigate bias in selection and promotion of women in STEM fields. The authors found that the use of the Implicit Association Test (Richards-Yellen, 2013) and the Go/No-Go Association Task (GNAT; Nosek & Banaji, 2001), as well as the measurement they developed for the study: the Personalized Go/No-Go Association Task (PGNAT), all produced improvements in implicit associations for men. The measures did not produce appreciable results for women, because they already tended toward more positive implicit associations.

P-O fit and gender bias. The researcher could find no studies which consider both P-O fit and gender bias in selection. A study by Carless (2005)

addressed the influence both P-O and P-J fit along with equal opportunity policies and social support networks have on career commitment and intention to remain in the field for pre-entry police officers in Australia. The study was primarily focused on equal employment opportunity (EEO) and affirmative action (AA) laws which directed the hiring of women and racial minorities into the traditionally male sextyped job of police officer. Men tend to see such policies as disadvantageous, however, and generally react negatively to them. Thus, support for AA and EEO laws was much stronger for women than for men. As with other studies of P-O fit, the Carless (2005) study found that applicants who perceived an alignment between their values and attitudes with those of the organization had a higher level of commitment and desire to remain with the organization. The study also suggested that awareness of AA/EEO policies had a positive impact on career attitudes and might enhance retention. Per Carless (2005), however, gender was not a moderator of the relationship between EEO policy and career commitment.

While there appears to be a dearth of studies combining P-O fit and gender bias in selection, some recent researchers have begun to question whether cultural fit is a disguise for bias and discrimination. The argument is that cultural fit is a vague and hard-to-define term which is often invoked as a reason to hire a candidate or, more often, a reason *not* to hire that candidate (Cultural Fit, 2015; Reynolds Lewis, 2015). While these sources do not rule out cultural fit with an organization completely, stating that it has a place in the selection process, it should

not be the overarching measure of a candidate's qualification for a position (Cultural Fit, 2015; Reynolds Lewis, 2015).

The ultimate goal of hiring for fit with an organization is to bring the best, most qualified people into the firm who will be productive, innovative, and contribute to the bottom line. If that means hiring someone whose skill set diverges from what the organization has traditionally sought, then changes may need to be made in how workforce planning is done, from writing employment ads which are not implicitly skewed toward men (Reynolds Lewis, 2015) to training recruiters and evaluators to screen out bias and seek diversity (Bendick & Nunes, 2012; Chen, Sparrow, & Cooper, 2016; Jackson, Hillard, & Schneider, 2014), the results point to hiring workers with positive outcomes and reduced turnover. These outcomes will be discussed in the next section.

P-O Fit Considerations and Outcomes

P-O fit, job satisfaction, and intent to turnover. A study by Liu, Liu, and Hu (2010) arrived at the conclusion that P-O fit was a significant factor in employee turnover intention, work attitudes, OCB, ethical behavior, stress, and job performance. The authors' challenge was measuring fit in such a way that it can be used in determining outcomes based on organizational objectives. A powerful resource which may be used to determine position needs based on position and

person characteristics is the U.S. Department of Labor's Occupational Information Network (O*Net; www.onetonline.org), which is a comprehensive database of information on a broad range of existing and emerging occupations, including searchable data on such position characteristics as abilities, interests, knowledge, skills, work activities, work context, work styles, and work values. The information gleaned from O*Net can be merged with other work analysis data and P-O fit assessment tools to gain a picture of existing and future organizational position and work needs as well as the characteristics of the workers needed to fill them.

Wrzesniewski & Dutton (2001) devised a model for what they termed job crafting, which allows the employee to develop and change their position to address the changing and dynamic needs of the organization. Because this model gives control of the work role directly to the employee, and because the employee has a great deal of autonomy in determining the work role and functions, they can attribute meaning to their position, which has the potential for increased motivation, initiative on the employee's part, and resulting job satisfaction. Their model has implications for the current study, since consideration of a worker's ability to shape their own work, when combined with an analysis of the organization's culture has potential for significant impact on job satisfaction. In addition, not all workers will be able to shape their roles and modify their work, necessitating P-O fit considerations when hiring such workers.

Wrzesniewski & Dutton's (2001) model provides the foundation for the current study by considering motivation, moderating variables such as opportunity and individual orientation toward work, and effects on work product such as design, social environment, and work identity. Their model is presented in Appendix B and will be discussed further in the following discussion of job satisfaction.

Job satisfaction. As part of their construct of organization analysis, Bowen et al. (1991) suggested a model for P-O fit (see Table 1 on page 60), part of which can be directly incorporated into P-O fit integration with the selection process. Their stated potential benefits of this model include:

- more favorable employee attitudes (such as greater job satisfaction, organization commitment, and team spirit)
- more desirable individual behaviors (such as better job performance and lower absenteeism and turnover)
- reinforcement of organizational design (such as desired organizational culture)

(Bowen, Ledford, & Nathan, 1991, p. 46)

Therefore, Bowen et al. (1991) suggest that use of their model will result in more satisfied, connected, committed workers who will perform better and fit well with the organization and its culture.

Wrzseniewski and Dutton's (2001) job crafting model also has applicability and potential for increased job satisfaction when considering P-O fit during workforce planning under the needs-supplies model of fit (see Appendix B). As the authors stated, this model contributes to such basic desires as need for personal control of work activities, creating and sustaining a positive sense of self along with a drive for self-enhancement, and a need for human connection, all of which directly affect job satisfaction. In their model, employees are motivated to work by such needs as control, work meaning, positive self-image, and connection with others (Wrzseniewski & Dutton, 2001). These needs are moderated by the opportunity to craft their own position as well as their individual orientation toward both motivation and work. If these factors and moderators are considered along with P-O fit, a job can be described and designed to incorporate those needs, and applicants with the needed attributes can be targeted, such that the eventual selectees can enrich their jobs and tailor them to their own needs, motivations, and goals. Thus, as Wrzeniewski and Dutton (2001) stated in their model, workers can shape their jobs and their work environment to provide individual meaning to the work, and in turn, the job and work contexts are likely to change the meaning of the work and the individual's work identity in the process. Thus, the individual worker can use discretion which transcends the boundaries of their traditional assignments, tasks, and responsibilities to expand, shape, and innovate within the position. Such innovation can encompass new processes, services, and even new products which

will contribute to the organization's competitive position. That would make consideration of P-O fit critical for hiring the right individuals for the right positions to maximize meaning, commitment, and satisfaction to the worker, who will then be effective, productive, innovative, and satisfied with the work and the work environment.

Finally, an empirical study in China by Liu, Liu, and Hu (2010) found that P-O fit had a significantly positive effect on job satisfaction, thereby supporting Schneider's (1987) proposition that employees prefer to work in an organization with which they share commonality. Kristof (1996) identified similar outcomes. Both studies contributed to the findings that P-O fit consideration leads to hiring decisions which are mutually beneficial to the organization and the person hired to work within it.

The literature on P-O fit firmly supports a connection with the affective attitudinal outcome of job satisfaction.

Turnover intent. In addition to predicting job satisfaction, both the P-O fit and gender bias literature support similar predictability of intention to quit.

Kristof (1996) found a negative relationship with the intention to leave an organization at the individual level when supervisor-subordinate and peer-goal congruence were high, and at the group level when within-constituency congruence was high. O'Reilly et al. (1991) demonstrated that value congruence significantly determined turnover within two years of initial P-O fit assessment, and Chatman

(1991) measured levels of congruence both at entry into an organization and after one year of employment, finding these significantly predicted the level of turnover.

The Chinese empirical study by Liu et al. (2010) also found that good P-O fit had a strong negative effect on turnover intention and that this was further attenuated by tenure and position level. In other words, as the age of respondents in their study increased, intent to leave the organization decreased. Their results supported previous findings in similar studies of P-O fit and intention to leave the organization (Arthur et al., 2006; Westernman & Cyr, 2004). The corollary to this is that "P-O fit affects turnover intention through the mediator of job satisfaction" (Liu et al., 2010, p. 623).

Stated another way, the assumption is that "poor P-O fit necessarily leads to decreased job satisfaction and thus leads to turnover" (Wheeler, Gallagher, Brouer, & Sablynski, 2007, p. 204). A meta-analysis conducted by Kristof-Brown, Zimmerman, and Johnson (2005) on the outcomes associated with P-O fit found a significant relationship between P-O fit and job satisfaction as well as P-O fit and intent to turnover (mean r=0.44 and 0.35, respectively). A less expansive meta-analysis conducted by Verquer, Beehr, and Wagner (2003) reported a more modest correlation between P-O fit and job satisfaction as well as P-O fit and intent to turnover (r=0.25 and 0.18, respectively). While both studies found a strong positive relationship between P-O fit and job satisfaction, they found a much

weaker correlation explaining the negative relationship between P-O fit and turnover intent.

Wheeler et al. (2007) also studied the moderating factor of viable job alternatives as an influencer of intention to turnover when P-O fit was poor, and the employee was dissatisfied. They found that poor P-O fit might lead to job dissatisfaction, but unless the dissatisfied individual also perceived that other work opportunities exist, that individual would not leave the current position. This helps to explain the weaker link between P-O fit and intent to turnover.

Organizations which do not value diversity and/or which are seen as permissive of sexual harassment tend to lose female employees. If an organization has a less supportive diversity climate, women are more likely to leave, further contributing to underrepresentation in already male-dominated field (Miner-Rubino & Cortina, 2004). If an organization is permissive of sexual harassment, victims are not as likely to come forward for fear their complaints will not be taken seriously (Hulin, Fitzgerald, & Drasgow, 1996), which can ultimately lead to disengagement from work and turnover (Kath, Swody, Magley, Bunk, & Gallus, 2009). It is here that diversity and culture training (Chen, Sparrow, & Cooper, 2016), along with implicit bias training (Jackson, Hillard, & Schneider, 2014), as previously mentioned, as well as hiring for complementary fit (Kristof, 1996), can make strides in bringing women into a traditionally male-dominated culture and ensuring they thrive.

When integrating P-O fit with workforce planning, then, a positive outcome is predicted, assuming gender bias and harassment are either not present or are mitigated, such that employees are less likely to leave an organization, although the strength of this outcome is weaker than that of the link with job satisfaction. Even if P-O fit is poor and an employee is dissatisfied, that employee is only likely to leave if other work opportunities are readily available. Thus, when analyzing the position and organization for current and future needs, incorporating P-O fit results in a stronger possibility of job satisfaction and a weaker but still positive possibility of reduced voluntary turnover. Integrating the findings regarding increased job satisfaction and decreased intention to voluntary leave an organization with P-O fit considerations, then, leads to the subject of the proposed study.

To summarize, the study explored the integration of P-O fit consideration during workforce planning as it influences the affective outcomes of job satisfaction and turnover intent. In other words, the study sought to determine whether there is, indeed, a long-term positive outcome of acquiring workers assessed for fit with the organization, who want to be with the organization because of perceived cognitive symmetry with the organization's climate, culture, values, and norms, and who are strongly motivated to perform well. In addition, the study attempted to determine whether those employees recruited and selected specifically for fit with the organization will tend to remain with an organization longer than those who are not assessed for fit. Such employees would then be postulated to

have a positive, synergistic relationship with the organization, overall job satisfaction, and a negative effect on intent to leave the organization such that the organization is better able to meet its mission and goals.

Chapter 3: Methodology

Overview

The present study attempted to discover whether a relationship exists between intentional consideration of P-O fit and observed gender bias in the selection process such that workers who are hired are similar to those already within the organization, or whether perceived fit and observed biases result in a broadening of cultural and attitudinal characteristics. Workers were questioned about and observed for attitudinal outcomes of job satisfaction and intention to leave an organization, which would be at least a partial indication that a relationship exists between fit and bias. The approach used differs from other studies on P-O fit outcomes in that a qualitative method of lived experience within organizations was utilized. The transcendental phenomenological study involved use of a comparative case analysis to determine whether the interaction of P-O fit considerations and implicit gender biases in current practice during selection results in hires who are diverse, satisfied with their jobs, and intend to remain with the organization. Such outcomes are usually measured based on surveys of job incumbents or analysis of organizational metrics without regard to whether and how P-O fit or gender bias were integrated in the selection process. Those studies

which have considered fit during selection have generally measured it based on congruence with a set of existing characteristics of the organization (e.g., values, role identity, cultural aspects, etc.) and, while eventual affective and attitudinal outcomes are considered, they are not necessarily integrated with or measured by consideration of fit during selection. In addition, the literature supporting the contention that female job applicants are unfairly subjected to gender bias in the selection process is large (c.f., Bendick & Nunes, 2012: Elsesser & Lever, 2011), although the level of such support is mixed. Further, no studies found by the researcher have investigated the simultaneous effects of both P-O fit considerations and gender bias in selection. Previous studies have overwhelmingly studied P-O fit and gender bias (if it occurs) separately and generally from the viewpoint of an employee's interaction within the organization after employment, albeit based on considerations during the selection process. This study explored what measures are used by hiring managers to determine the specific construct of P-O fit during selection, if any, and determine whether selection for fit interacts with descriptive gender bias to influence selection decisions. This was integrated with job incumbent perceptions of organizational congruence to determine whether those employees who were specifically selected for P-O fit have different levels of job satisfaction and intent to remain with the organization than do those employees who were not specifically selected for fit.

As discussed, the qualitative, transcendental phenomenological, comparative case analysis (Moustakas, 1994) was conducted using two equivalent firms, one of which specifically utilizes P-O fit considerations in their hiring practices, and one of which does not necessarily consider P-O fit. The methodology for exploring whether a relationship exists between personorganization fit and gender bias within the selection process of workforce planning consisted of a series of interviews to explore the lived experiences of the hiring manager at each firm, along with as many employees at each firm as would volunteer to participate. The target was to recruit at least four to six participants at each firm, for a minimum total of 10 initial participants (two hiring managers plus at least four employees at each of the two firms). In addition, the researcher planned to observe a meeting involving two or more of the employees at each firm to detect and determine the types and effects of interactions among various employees of the firm. This would provide visual evidence of both employee interactions with colleagues and coworkers as well as satisfaction with their roles, fit with the organization, and any subtle gender bias cues among participants. Data collection and analysis of interviews occurred sequentially, with original data collection consisting of semi-structured, open-ended dialogue (Moustakas, 1994) followed by analysis of the data to describe significant statements, categories, and themes (Creswell, 2013; Saldana, 2016). Simultaneous comparison and analysis of observations of the meetings was conducted to assist with discovery of patterns

indicative of diversity, culture, climate, and values of the firms, especially with respect to gender stereotyping and fit. The researcher analyzed not only whether and how fit is considered with regard to organizational culture and affective outcomes, but also the success of individuals within the organization, with special consideration of diversity of workers by gender (Charmaz, 2014).

One of the hallmarks of transcendental phenomenology is the researcher's ability to set aside all prejudgments and biases and take a fresh, naïve approach to a topic (Moustakas, 1994). Moustakas (1994) follows one of Husserl's (1970) concepts whereby the researcher frees himself or herself from suppositions; a process termed *epoche*, from the Greek for 'stay away from' or 'abstain' (Moustakas, 1994). In the *epoche*, addressed here under the Worldview and Researcher Positionality section, the researcher attempted to define and then set aside "prejudgments, biases, and preconceived ideas" (Moustakas, 1994, p. 85) pertaining to the topic. As van Manen (1990) describes the process, the problem "is not always that we know too little about the phenomenon we wish to investigate, but that we know too much" (p. 46). Both van Manen (1990) and Moustakas (1994) use Husserl's (1970) term of "bracketing," which is a setting aside of the above notions, which are then bracketed out of the study, so the researcher may be rooted solely in the topic of study.

Validity of the study was considered by giving participants an opportunity for a greater incentive by agreeing to review their input from the initial interview

and then agreeing to participate in a one-on-one, follow-up interview with the researcher to delve further into their statements, thoughts, and input and further applying it to the study topic and research questions. In addition, observations from the meetings in the two firms were used to compare and contrast interactions among firm members to attempt to determine whether the data gleaned from the interviews was consistent with the actual behavior and interactions in the organization. In this way, more focused data could be collected and analyzed to further refine the categories which emerge (Saldaña, 2016).

This chapter will be outlining the following in detail:

- collection, analysis, and presentation of research data;
- how participants were selected for the study and what portion of the population was represented;
- how the researcher's position relates to the study participants and the topic as a whole;
- ethical considerations surrounding the interviews; and
- how the data was validated.

The researcher chose a transcendental phenomenological study because such studies are often used to describe and analyze a phenomenon through the lived experiences of those who directly encounter the phenomenon. Participants were drawn from two equivalent firms and several employees within those firms,

including the hiring managers, who have experienced firsthand the hiring process as it is applied to their respective firms. From the employees' perspective, both those who have experienced the process through the lens of P-O fit and those who have not were asked to describe their experience with the hiring process as well as their current satisfaction with their jobs, their coworkers, and their organization. They were asked to self-assess their performance, regardless of what their performance appraisals might say, and whether they plan to remain with the organization. The researcher transcribed, coded, and analyzed all interviews to see if commonalities existed between the firms or whether one firm experienced different outcomes from the other.

Following Creswell (2013) and utilizing the expertise of van Manen (1990) and Moustakas (1994), the study utilized the following features of a transcendental phenomenological study:

The study explored a single, linked phenomenon consisting of the hiring process and perceived attitudinal outcomes of participants' employment by individuals who have all experienced it (Creswell, 2013).

The interview protocol was designed to understand how practitioners utilize and measure person-organization fit in their hiring process—if at all—and whether possible bias is evidence based on gender hires. By querying individuals about their perceptions of the firm and their place in it after hiring, an effort was made to

determine if the attitudinal outcomes of the firms' employees differ as a result of person-organization fit considerations and possible gender bias (Creswell, 2013).

Following the initial interviews, a volunteer group of participants were asked to continue aiding the researcher by reviewing their input in the full transcript of their interview and then participating in an in-depth, follow-up, openended personal interview to allow for a more focused exploration and expansion of their ideas and input. This was a small subset of the total initial interview population, even though all participants volunteered for additional review and personal interviewing. The purpose of the follow-up interviews was to focus in more detail on the research questions to define further the axial coding and validation of data as defined by Creswell (2013).

The researcher observed a meeting at each firm at which two or more of the firm's employees were in attendance. The researcher simply observed as a nonparticipant and hand-recorded data in the form of notes regarding the interactions (Creswell, 2013). The researcher did not intend to interact with any of the meeting participants in any way. The purpose was to discern participants' interactions with one another and compare those interactions with interviewees' perceptions of the organizational culture and their place within it. Additionally, the observations attempted to discern any evidence of gender bias among and between firm participants. In this way, the researcher was able to cross-reference interview responses with observed behavior to draw inferences about employees'

perspectives that would not be obtainable by relying exclusively on interview data (Maxwell, 2013).

As part of the bracketing process (Creswell, 2013), the researcher has described any personal experience with person-organization fit and gender bias to identify possible preconceptions which might influence the outcomes, and then set them aside so as to be as objective as possible with study participants.

Thus, data collection consisted of meeting observations; initial semistructured interviews; in-depth, open-ended, follow-up interviews; and a transcript review by select participants for validation purposes.

Data analysis consisted of personal transcription of all interviews which afforded the researcher the ability to begin analyzing responses during transcription. The transcripts were then coded for major categories and concepts to find themes in support of or in contrast with the research questions. Interview data were first open coded (Creswell, 2013) or first-cycle coded (Saldaña, 2016) for major categories and themes and to identify areas of interest for further exploration in follow-up interviews (with those who participated). The data were then axially coded (Creswell, 2013) or second-cycle coded (Saldaña, 2016) to focus the categories and themes into a greater sense of the patterns (Saldaña, 2016).

The ultimate goal of continually refining and coding the data was to produce a composite, textural description to provide a deep understanding and definition of the essence of the phenomenon. From that, an abstraction could be

deduced which describes whether P-O fit considerations do, indeed, interact with gender bias in the selection process and whether this leads to lesser or greater outcomes in terms of job satisfaction and turnover intention.

Worldview and Researcher Positionality

The study employed a transcendental phenomenological research approach (Creswell, 2013; Moustakas, 1994). Such studies focus less on the researcher and more on the descriptive experiences of the participants. As Moustakas (1994) illustrated, the process of such a study involves the following:

1) Identifying the phenomenon to study. The phenomenon under study was the consideration of a worker's fit or match or suitability with not only the position, but also the department, the unit, and the organization. In addition, the study sought to determine whether P-O fit considerations are influenced by gender bias such that selected workers provide complementary or supplementary fit leading to a homogeneous, tight-knit but less innovative group or a more heterogenous, diverse, and innovative group. Another of the study's goals was to understand whether firms which specifically consider P-O fit have different outcomes from firms that do not specifically consider fit in terms of job satisfaction and intention to remain with the organization.

2) Identifying and then bracketing out personal biases, prejudgments, and preconceived notions regarding the phenomenon under study. In the proposed study, the researcher was personally always cognizant of an employee's fit with the organization as part of their interview and selection process. The researcher felt that such considerations resulted in productive, satisfied hires who intended to remain with the organization in most instances. It would be very tempting, therefore, for the researcher to have prejudged the outcome of the study; however, those notions were put aside, and the researcher consciously attempted not to direct any questions to subjects that might have influenced their responses.

While the researcher has not personally perceived gender bias when applying for positions in the past, there is a strong sensitivity to pay parity because of gender in both the researcher's current and previous roles.

While pay parity is not related to the current study, the issue has the potential to cause a study bias and was therefore actively bracketed out of interviews.

In addition, the researcher has done extensive research on P-O fit both during the classroom portion of her doctoral program as well as in preparation for the proposed study. That research must also be bracketed out of the study so that only the lived experiences of the participants are

structurally and texturally described and analyzed without regard to what past research demonstrates.

3) Collecting data from research participants who have experienced the phenomenon. The methodology for selection of firms and participants was as described in detail below.

A theoretical framework has proposed a synergistic fit between potential workers and the organization, which can be predicted, measured, and applied (Chatman, 1989; Bowen, Ledford, & Nathan, 1991; Kristof, 1996). This is the construct of P-O fit, which goes beyond identifying objective and verifiable work behaviors and takes other factors into account, such as the environment in which the work takes place, including the climate, culture, values, and norms within the organization, as well as worker attributes, traits, characteristics, and gender which all interact to contribute to fit with the organization in general.

On a personal level, because the researcher planned to conduct every aspect of the research, from soliciting participants to conducting interviews to transcribing and analyzing all data, the researcher had a duty to ensure that any personal biases were bracketed throughout the study. As mentioned above, the researcher is aware of possible preconceptions, possible prejudgments, and possible personal biases that could cause the data to be skewed both during the interviews and during analysis if vigilance was not practiced constantly. The analyses must be scanned to ensure such biases were not allowed to "creep into" the findings. Because the

researcher is aware of this bias, however, it could be bracketed in order to overcome it while asking questions and analyzing data.

From an experiential perspective, the researcher has worked for several start-up businesses in the past, so human resources processes are familiar, including such processes as establishing and enforcing procedures regarding HR management, payroll functions, budgeting, hiring, training, and discipline; however, the only formal education and training the researcher has regarding HR involves individual classes taken for graduate Master of Business Administration (MBA) and Doctor of Business Administration (DBA) programs. The researcher has never worked in any formal capacity within a human resources department and considered this to be a benefit for this research study, since there could be no preconceived ideas regarding HR processes overall. Therefore, the researcher is not so personally invested in the outcome that there is a risk of biasing the entire study.

Research into the construct of P-O fit piqued the researcher's interest and curiosity, first because of the conflicting results regarding the strength of the relationship between considerations of fit and various outcomes by employees, and second because of the lack of qualitative research in the area.

Exploring P-O fit and gender bias in the workforce planning process utilized the existing literature and the lack of qualitative analysis to identify a gap involving the possible relationship between P-O fit considerations and gender bias

with affective, attitudinal outcomes of job satisfaction and intention to remain with an organization. Thus, the study set out to discover whether P-O fit does, indeed, interact with gender biases during selection and whether that interaction influences gender-based hires. The perceived outcomes of increased job satisfaction and reduced intent to turnover were observed through the lived experiences of people within equivalent organizations.

Research Questions

The present study explored answers to questions regarding the construct of P-O fit, the measurement and application of which may interact with gender bias on the part of hiring managers and may influence selection decisions. The resultant attitudinal outcomes for an organization may be attributable to the workers hired. Person-organization fit was the only one of the fit constructs targeted for study as opposed to other forms of fit within an organization which can be screened during the selection process. Gender bias was the only bias targeted for study as opposed to other biases which may influence hiring decisions. Only the outcomes of job satisfaction and turnover intention were targeted as affective outcomes of the hiring process as opposed to other affective attitudinal and behavioral outcomes. Other constructs and other attitudinal and behavioral outcomes are possible; however, the current study isolated these specific factors for in-depth study and analysis to

explore support for the research questions without compounding influences. As such, the questions that were the subject of this study include:

Research Question:

Do hiring managers at small, for-profit engineering firms in central Florida consider person-organization fit during the selection process, and does that process support gender-based hires?

Subquestion 1: If hiring managers are aware of and intentionally consider P-O fit, do they select more women as engineers than firms which do not?

Subquestion 2: If hiring managers are aware of and utilize P-O fit, is there evidence of greater gender bias in their hiring decisions than firms which do not?

Research Design

In order to explore P-O fit through the lived experiences of two groups of people from two equivalent organizations in terms of demographics, industry, and geography, a comparative case analysis approach studied two firms: one which intentionally considers P-O fit in the workforce planning and selection process, and

one which does not necessarily utilize it. The study design, parameters, and procedures were as follows:

- 1) The firms selected are engineering firms of approximately 15-25 people in central Florida working on industrial, government/municipal, and utility projects. Such projects are not limited to the local geographic area where the firms are physically located, but could include regional, national, and global projects as well. Each firm provided written permission for their firm to be included in the study (see Appendices H and I).
- 2) The researcher observed at least one meeting at each firm as a nonparticipant. The meetings included several of the firm's employees, although a minimum of two employees was required. Meeting participants were not necessarily required to be the same participants who were interviewed. Observed meetings were approximately one hour in duration. Interactions among and between the employees was observed and were used as a basis for comparison against interview responses to detect and determine patterns and consistency with the organization's culture.
- 3) The hiring manager at each firm was interviewed, and the following topics discussed:
 - a. Their workforce planning process
 - b. How they identify potential candidates
 - c. Whether their interviews are structured, semi-structured, or open

- d. Whether they assess candidates specifically for P-O fit
- e. What their perceptions of the organization's culture and climate are
- f. The diversity of the workforce in terms of gender, race, and ethnicity (so as not to reveal that gender bias was the main construct under consideration)
- g. How they appraise and reward or discipline employees
- h. The average tenure of employees with the company
- i. Whether they would be willing to share their performance appraisals forms and templates
- j. Whether they would be willing to share turnover data (a listing of employee hiring over the last five to ten years, which includes those who have terminated for any reason)

(see the Interview Protocol in Appendix G)

4) At least four to six employees of each organization were targeted for interviews regarding their experience with the hiring process along with their perceptions of the organization's culture and climate, and their place in it. The recruiting flyer in Appendix C was distributed to employees and posted in the organization to generate participant interest. At the end of each interview, each employee was asked if they would be willing to review a full transcript of the interview for accuracy and participate in a follow-up interview to delve deeper into the topics discussed. It was anticipated that

- two to three of the original participant sample would volunteer for followup interviews. Participants who did not volunteer for additional participation were invited to provide feedback regarding the accuracy of the information.
- an informed consent form and complete a participant demographic form which included choosing a pseudonym that would be used at all times (see Appendices D and E). Interview questions and responses from employees were not provided to anyone else in the organization so as to protect their identities and allow them to respond freely to possibly sensitive questions.
- 6) The hiring manager and interviewed employees from each organization were entered into a drawing for a \$25 gift card, and an anonymous sponsor provided additional funding so that two gift cards could be awarded per organization.
- 7) Once the interviews were transcribed, the researcher provided a transcript via email directly to the employees who volunteered and were selected for follow-up interviews, which were arranged at the time the transcript was provided for review.
- 8) The researcher anticipated that interviews of hiring managers and employees at each organization would be conducted on one day, which would include an observation of at least one meeting during the day,

separate from the interviews. The hiring managers were interviewed in person, and the employees were given the option of interviews in person or via phone, Skype (https://www.skype.com/en/), Zoom (collaborative webconferencing software; https://zoom.us/), Facebook Messenger, or any other medium with which they were comfortable. Thus, if they were not comfortable being interviewed in person, they had alternative options. This was designed to encourage free and open communication and honest answers. All initial interviews were conducted in person, and follow-up interviews occurred in person at the Melbourne firm and via Zoom conferencing software at the Lakeland firm.

- 9) Each employee who participated in a follow-up interview was given at least a \$20 gift card as an incentive for their participation, even if they won the \$25 gift card for participating in the initial round of interviews.
- 10) The hiring managers as well as those employees who did not participate in follow-up interviews were offered a summary of their interview (rather than the full transcript) to review for accuracy. This would provide further validation of the research.

Overview of Research Approach

The study answered a call for qualitative research into P-O fit (Blanco dos Santos and Russi De Domenico, 2015) to gain an understanding of the essence of the construct of P-O fit and whether firms which hire specifically for fit demonstrate greater implicit gender bias during the selection process than firms which do not. The attitudinal outcomes of those hired can be affected by considerations of fit and gender bias. Moustakas (1994) states that a transcendental phenomenological study is indicated when exploring a research topic through the lived experiences of those who encounter the phenomenon. By querying individuals who have experienced the construct of P-O fit during the hiring process and comparing it with individuals who have not experienced it, and then determining whether a gender bias may have influenced the hiring decision, the study attempted to compare those experiences and perceptions to determine whether a true relationship exists such that P-O fit considerations and gender bias during selection provide different outcomes.

The number of participants targeted coincided with Creswell (2013), who stated that phenomenological studies consist of "in-depth and multiple interviews with participants," and further recommended that "researchers interview from 5 to 25 individuals who have all experienced the phenomenon" (p. 81).

Personal interviews are a staple of phenomenological study designs (Creswell, 2013; James, Slater, & Bucknam, 2012). Observations provide an additional opportunity for reflectivity, impersonal scrutiny, behavioral interactions, and comparison (Maxwell, 2013; van Manan, 1990). The proposed study also included in-depth, follow-up interviews, in addition to the initial round of interviews, to delve deeper into participants' experiences and views regarding P-O fit, whether gender bias existed during their selection process, and how they have experienced their work and environment.

Population and Sample

The population being targeted from which to recruit participants consisted of two engineering firms located in central Florida of approximately 15-25 people working primarily on industrial, government/municipal, and utility projects. Each firm provide written permission for their firm to be included in the study (see Appendices H and I). The researcher chose to focus on a single industry in this study to preclude introduction of a number of potential alternative hypotheses and to test specifically the impact of P-O fit considerations during the selection process between similar firms within that industry (Chatman, Caldwell, O'Reilly, & Doerr, 2014). Also, gender bias in science, technology, engineering, and mathematics (STEM) fields has been particularly problematic (Gurchiek, 2018; Jackson, Hillard,

& Schneider, 2014). Since gender bias is still evident in those fields, the study would be more likely to discover such a bias in the hiring process of engineering firms regardless whether fit is also intentionally considered. If gender biases exist in firms hiring with a specific goal of organizational fit, the resulting hires may be more homogeneous and less diverse, which has been shown in past studies to result in stultification of innovation (Chatman, 1989; Kristof, 1996; Schneider, 1987).

The researcher received commitments to the project from the CEO of an engineering firm in Lakeland, Florida, which fits the demographic requirements of the study. The CEO is also the hiring manager for this firm and intentionally considers P-O fit during workforce planning and selection. A similar firm that does not necessarily consider P-O fit assessments during workforce planning and selection also committed to the study. That firm is located in Melbourne, Florida, and is a close demographic fit with the Lakeland, Florida, firm. The Melbourne firm has a hiring manager who is also the controller for the organization. The researcher asked the hiring managers of each firm to distribute the recruiting flyer in Appendix C to solicit participants. Both hiring managers arranged for and scheduled interviews with their employees.

The study included the hiring manager and several employees from each organization for initial interviews. A greater number of participants was welcomed, and the result was a total of 10 participants at the Melbourne firm and 11 participants at the Lakeland firm.

Selection of Participants

Because the study targeted two engineering firms, participation consisted of a generally homogeneous group of engineers, designers/drafters, and engineering administrative personnel. Participants were not required to be familiar with the construct of P-O fit since the questions they answered were broad and general regarding the hiring process and their experiences within each firm. While questions were broad and general, they were also targeted to discover specific information about the participants' experiences.

The Research Participant Demographic Form (Appendix E) was used to gather general information from each participant. This form was distributed to all employees at each firm, and participants were asked to complete and bring it with them to the interview. The researcher has maintained a separate file for each participant under their pseudonym. Pseudonyms were used to protect the identity of participants and encourage honesty and openness in the interviews.

Instrumentation

According to Maxwell (2013), the researcher is the primary instrument in a qualitative study. In addition, since the researcher transcribed each individual

interview personally, the researcher would be the primary transcription instrument. The researcher also acted as the recruiter and selector of participants as well as the interviewer for both initial and follow-up interviews. While this allowed for uniformity of observation and coding of all data consistently and evenly, it also increased the risk of bringing personal bias into the data which the researcher purposefully and actively bracketed out during transcription, observation, coding, and analysis.

All interviews were recorded using a smartphone "Recorder" application for audio recording only. The researcher used this application during pilot interviews conducted during the fall of 2017 and spring of 2018. The audio quality was excellent, the application was easy to use, and having a phone between the interviewer and interviewee was unobtrusive. It was also convenient for transcribing the interviews.

Because the researcher found that analyzing the transcriptions of the interviews became extremely cumbersome, the researcher purchased and used NVivo qualitative data analysis software.

Procedures

Pilot and initial interviews. The researcher conducted a pilot interview with the executive director of human resources at SatCom Direct in Melbourne, Florida.

The purpose of the pilot interview was to test the interview protocol for hiring managers to be used in the actual interviews for relevancy, reliability, and responses. The session was recorded using the method described in the preceding section, transcribed, and coded to see if refinement of questions was needed as well as providing practice for the researcher.

The research met with the hiring managers specifically to instruct them regarding the process, including that the researcher wanted to interview them in person and to explain the study, gain their input, and assure them of the confidentiality of responses and minimal intrusion upon their employees' time. All employee participants were given a range of choices for interview locations and methods. They had the option of being interviewed on the same day as the hiring manager at the place of employment; however, if they were not comfortable with that due to possible loss of privacy, they could have chosen to be interviewed off site near the firm, or via phone, Skype (video conferencing and instant messaging application; https://www.skype.com/en/), Zoom (collaborative web-conferencing software; https://zoom.us/), Facebook Messenger, or any other medium with which they were comfortable. Thus, if they were not comfortable being interviewed in person, they had other options, including conducting the interview on a different date, at a different time, and at a different location. This was designed to encourage free and open communication, and honest answers. Their choice of a meeting location and method promoted a relaxed, comfortable, stress-free environment. All

participants chose to be interviewed in person during initial interviews, and the two follow-up interviews of participants at the Lakeland firm were interviewed via Zoom collaborative web-conferencing software.

Confirming participation and gathering consent. The hiring managers at each firm assisted with arranging interviews. They distributed the study flyer (Appendix C) as well as the Research Participant Informed Consent Form (Appendix D) and Research Participant Demographic Form (Appendix E) to all employees and asked for volunteers to be interviewed. Upon agreement to participate, each informant was asked to complete and sign the forms, keep a copy for their files, and bring the original to the scheduled interviews.

Member checking and follow-up interviews. The interviews were transcribed as quickly as possible afterward, although transcriptions were slow and cumbersome. Every participant agreed to a follow-up interview, so the researcher chose two from each firm to interview based on responses in the initial interview. The researcher directly contacted the volunteers who were asked to participate in follow-up interviews. Those informants were provided with a copy of the full transcription via e-mail and were given approximately a week to review it. A time was then arranged to conduct the follow-up interview. The same options regarding location and medium applied to the follow-up interviews. Follow-up interviews were unstructured, and interview questions were based solely on the transcriptions

and were designed to seek additional information, insight, input, and ideas based on what was discussed in the initial interview. The interviews were therefore more individualized and tailored to each member's inputs, so the interviews were unstructured and open-ended. Follow-up interviews varied from 10 to 30 minutes, and each participant was provided with a gift card. Three gift cards were \$20 Amazon.com gift cards, and the researcher had obtained a complimentary \$25 Applebee's gift card, which was given to the fourth participant.

Each interview was also recorded using the "Recorder" application on the researcher's smartphone and was transcribed as soon as possible after the follow-up interview took place.

Participants who were not asked to member-check their input were offered a summary of their interview to review for accuracy if they desired. None of the participants opted to review a summary of their transcript.

Data Collection

As stated above, data collection consisted of the recorded and transcribed initial interviews as well as the recorded and transcribed follow-up interviews. In addition, observation of a meeting involving several employees of each firm took place with field notes taken by the researcher. The follow-up interviews were based on member checking of transcriptions by the participant. The reasoning

behind this method was to lend validity to the findings, especially since the researcher did all the collection, transcription, coding, and analysis manually. See the Validity and Trustworthiness section below for additional information.

Data Analysis

All data, once transcribed, was shared with those informants who were asked to member-check the full transcript of their session and participate in a follow-up interview. At the same time, the researcher was open coding and analyzing each transcript for major categories and themes using the NVivo qualitative analysis software, including the data collected via field notes from the meeting observations. The procedure for coding of both interviews and observations was as prescribed by Creswell (2013) to describe, classify, and interpret the data as well as Saldaña (2014) to code for patterns, lenses, filters, and angles. The purpose of coding data is to seek smaller categories or themes within the overall data and apply it to the research questions being studied. The researcher began with lean coding as described by Creswell (2013), which is also known as first-cycle coding by Saldaña (2014), to group data into five or six major categories of information, followed by expanding those categories into no more than 25 to 30 total categories of information. A total of 13 categories (not including subcategories) was eventually identified. Coding can be based on topics discussed

during the interviews, frequency of use of certain words or phrases, or other categories that present themselves within the data. See Chapter 4 for topics and categories used during coding of data.

Once the codes and categories were gathered, the researcher triangulated the results of the initial interview transcripts, the meeting observations, and the follow-up interview transcripts into an abstraction that interpreted the results and applied them to the research questions. The findings are presented in Chapter 4.

Ethical Considerations

This study was designed to be innocuous, as it mainly addressed human resource functions, processes, and procedures through the lived experiences of employees of two engineering firms. As such, there were no physical risks associated with this study at any time. The greatest risk that could be foreseen was a loss of confidentiality, which was addressed as part of the Research Participant Informed Consent Form (Appendix D). Every effort was made to keep participant information strictly confidential; however, this could not be guaranteed. While both hiring managers and at least one participant asked if they could obtain a copy of the dissertation, because it would be fairly easy to identify some participants based on responses or descriptions, it will not be possible for the researcher to provide a copy, due to the resultant loss of confidentiality.

In addition, based on the interview discussions, some participants found that some of the questions asked as part of this study raised sensitive issues for them or for their organizations, resulting in mild emotional discomfort. The consent form explicitly stated that participants could refuse to answer any of the questions asked, and if they felt any discomfort, they could take a break at any time during the study, both during the initial interview and during the follow-up interview if they were asked to participate in one. For example, it was possible that a participant might view a particular question as hinting that either they or their company are engaging in unethical behavior, which would cause some distress. It was also possible that they might not feel comfortable answering a question about their intention to leave their organization. If that occurred, they were advised that their identity is protected, and their answers are confidential, but they were also reminded they could decline to answer the question as well. Only one participant opted not to answer a question that was making them uncomfortable.

Participants were also advised, both in the consent form and verbally, that they could opt to withdraw from the study at any time, either during or after the initial interview as well as during or after the follow-up interview if they chose to participate, and they were assured that they would not experience any negative consequences as a result.

Each participant was given the option to receive and review a summary of the proceedings of their individual interview unless they agreed to participate in the follow-up interview, in which case they were asked to review a full transcript of the interview session. The purpose of the member-checking reviews of transcripts and summary information was to solicit feedback on the accuracy of the information to validate the findings. Because all participants volunteered to participate in follow-up interviews, the researcher chose two from each firm to member-check their transcriptions and participate in follow-up interviews. None of the follow-up interview participants opted to review a transcript of their session.

Validity and Trustworthiness

In order to validate the results of data collection and analysis, the researcher looked at a triangulation approach consisting of initial interviews, meeting observations, and follow-up interviews. The purpose was to have employees review their contributions to the study to validate what they said was correct and described their views as they intended. This is known as member checking or informant feedback (Guba & Lincoln, 1989; Miles & Huberman, 1994; Shenton, 2004). All interview responses were compared and contrasted with data and notes collected from meeting observations to detect and determine whether behavioral interactions in the actual work setting corresponded with what participants stated during the interviews as well as whether any evidence of gender bias existed among and between participants. It also opened the discussion for the follow-up

interviews, which would further validate the participants' contributions by delving deeper into their responses, ideas, and experiences.

The validation is included as part of the overall study to demonstrate that each of the methods (initial interview participation, follow-up interview participation, and meeting observation and interaction) is valid and contributes to the research. In addition, the validation would allow the researcher to control for biases on the part of participants as well as on the researcher's own part. In addition, reflection and integration of feedback was used continually to refine categories and themes and build possible support for the research questions, some of which was provided using the NVivo software.

Verification techniques. The researcher asked for feedback from participants who agreed to a member check of the transcript of their interview session to verify the data was transcribed correctly and accurately. This was done to ensure both validity and reliability of data collected. A summary of the follow-up interviews was offered to each participant who agreed to participate further to verify and validate that data also, although none of the follow-up participants requested this. Thus, at all stages of the study, data was verified and accurately reflected both the actual responses and intended input of participants, and participants generally agreed that their input supported what was asked. That is the reason the researcher designed the study to include only voluntary participation in the follow-up

interviews. If a participant felt it would be too much work, they might have been less likely to provide reliable, genuine information in their follow-up interview, or their answers would have been biased, leading to a risk to internal validity. The researcher would be unable to draw valid conclusions from skewed and biased data.

Generalizability. As with many academic studies, the present phenomenological qualitative study should invite further investigation which would eventually provide generalizability of the possible interaction of P-O fit and gender bias in the selection process of workforce planning regardless of industry, size of organization, location, or type of ownership. While it will not be possible to make this generalization based on the sample population in the current study, the researcher hopes that future studies could add to the findings and show further support. Over time, then, the themes uncovered, the research questions answered, and the discoveries made by such studies should be broadly applicable to strategic HR efforts everywhere. Organizational policymakers would then be able to take the results and apply them in practice within their own organization.

Chapter 4

This study revealed several interesting findings which, in addition to supporting the research questions, revealed at least one emerging theme with regard to hiring for fit and some indication of differential treatment post-selection based on gender. Study participants were, for the most part, very forthcoming with their experiences and, in some cases, shared deeply personal information. By piecing together information provided by many informants, the researcher was able to obtain valuable information regarding the culture and various incidents within each firm which individuals were more reluctant to divulge in full, and which raw data and numbers could not have illuminated properly or completely.

This chapter will present a detailed demography of each firm as well as a detailed description of the structure, function, and specific disciplines of each firm so that comparison and analysis of each as well as applicability of results to the research questions will be facilitated. In addition, a detailed description of the process and procedure for the study as it occurred will be provided, including a timeline for interviews, number of participants, background information provided prior to beginning each interview, structure and length of the interviews, and participation in and observation of company functions. Profiles of the participants is provided for those whose information is discussed herein to support a

description, category, theme, or application. Profiles information is provided to facilitate an understanding of the individual and their perception of their place within the organization. The researcher believes it would be impossible to understand the applicability of an informant's contribution without understanding more about the informant directly.

The Study Firms

For research purposes and to protect the identity of the firms under study, each firm will be referred to by its location rather than by the name of the firm.

Thus, one of the firms, which is located in Melbourne, Florida, will be referred to as the Melbourne firm, and the other firm, which is located in Lakeland, Florida, will be referred to as the Lakeland firm.

The Melbourne firm. The Melbourne firm is located north of Downtown Melbourne on a main thoroughfare spanning the width of Brevard County, Florida. The firm is located east of Interstate 95 in an area consisting generally of commercial properties, including more than one engineering firm, medical offices and facilities, a school, retail establishments, and restaurants. The firm itself is uniquely structured as four separate engineering companies by discipline, each headed by a principal engineer with a professional engineer (PE) license. The four

disciplines include a larger civil engineering company of 10 employees, and smaller, but equivalently sized companies in mechanical, electrical, and structural disciplines. While each of the four companies is set up as a limited liability company (LLC), they will be referred to interchangeably as either a company or a department, since each company is housed under an umbrella firm which performs the administrative functions for the overall organization, including accounting, finance, human resources, office management, marketing/advertising, and general administration, among others. The mechanical and electrical companies function closely as a traditional mechanical, electrical, and plumbing (MEP) engineering firm. The other disciplines function as standalone companies, although there is some overlap on projects occasionally, which appears to be one of the tools the firm uses to present itself as a "one-stop shop" for local engineering needs. They work mainly on local and regional projects in their disciplines.

According to the hiring manager of the Melbourne firm, they consider fit with the organization during the selection process, but they do not specifically question applicants about it, nor do they have any testing or assessments for fit. As Nolan, Langhammer, and Salter (2016) found, the Melbourne firm appears to hire based on instinctual measures of fit with the organization. Per Rynes and Gerhart (1990), the Melbourne firm appears to consider fit based on such concepts as "chemistry" with the organization or interviewer perceptions of whether an interviewee is the "right type" of person for their firm.

The Melbourne firm was comprised of 27 total employees at the time of the study. In follow-up interviews with two of the participants approximately two months after the initial interviews, one designer had already left the structural department (who was hired as a temporary employee), and a full-time, permanent designer had been hired in the electrical department. The researcher will refer to the composition of the firm at the time of the initial interviews. Each of the departments differentiate employees using the nomenclature of engineers and designers. Engineers were referred to without regard to status as principal or PE, although one of the participants, Sharon², seemed to refer to all non-PE engineers as engineering interns (EIs).

While all participants referred to designers by that nomenclature, the designers are also drafters. All companies within the firm use AutoCAD software for drafting and designing work, although some of the designers/drafters either had learned or were learning other drafting applications such as Revit, which is a newer drafting application allowing the drafter to model in 3-D.

The civil department had one administrator who functioned as both the administrative assistant for the principal and department as well as the permitting technician for the group. All other administrative personnel were directly

² All names used throughout are pseudonyms to protect the identity and confidentiality of participants.

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employed by the umbrella company. The following table breaks down the
employee composition for the Melbourne firm:

Table 4
Employee Composition of the Melbourne Firm

Firm	Engineers (Incl. Principal)	Designers/ Drafters	Administra- tive	Total
Umbrella Firm	0	0	3	3
Civil	6	3	1	10
Structural	1	3	0	4
Mechanical	2	3	0	5
Electrical	2	3	0	5
Totals	11	12	4	27

Of the 11 engineers at the Melbourne firm, one is female, for a total of 9.09% female engineers. Of the 12 designers/drafters, three are female (includes temporary employee), for a total of 25% female designers. Of the four administrative personnel in the firm, all are female, for a total of 100% administrative personnel. Of the 27 total employees, eight are female, for a total of 29.63% female employees.

The researcher initially met with the hiring manager, Becky, who is also the office manager and controller, along with her assistant, Jane, to describe the study

and establish parameters and logistics for the interviews as well as observing a meeting in the firm. All formal meetings at the firm involve clients, and the partners were not comfortable having the researcher sit in a meeting with outside clients; however, the hiring manager stated they have a number of luncheons at the firm for various reasons, which allows the various departments an opportunity to mingle and chat and interact with one another. Based on anticipated length of interviews and number of employees who agreed to participate, it was decided to hold interviews on two separate days, approximately one week apart, with the luncheon to be held after the second day of interviewing. The researcher would hold the drawing for the two gift cards just before the luncheon and then spend the rest of the time observing the interactions among and between luncheon participants. The first day of interviews was scheduled for the following week.

On the first day of interviews, the researcher interviewed eight participants: four in the morning and four in the afternoon with a break for lunch in between. One engineer (mechanical), four designers, two administrative personnel, and the hiring manager were interviewed. All interviewees were given an overview of the study and why they were being interviewed, their signed informed consent forms (Appendix D) and demographic forms (Appendix E) were collected and explained, and the follow-up interview process was explained. The hiring manager was interviewed using the protocol in Appendix G, and the other participants were interviewed using the protocol in Appendix F. Some participants were hesitant to

contribute as much because they appeared to be naturally more reserved, while others opened up after being reassured that they would not be identified directly in the study and their answers would be kept strictly confidential except as needed to describe or support a category or theme within the study.

The following week, the researcher interviewed one of the principals of the firm (mechanical). That was the only interview conducted that day, and the same procedure described above was used for that interview. Afterward, the company luncheon was held, and the theme for the luncheon was "National Say Something Nice Day," which happened to be that same day. A large whiteboard had been set up in one of the hallways during the week, and employees were invited to say something nice about their coworkers. For the luncheon, that whiteboard was brought into the conference room where the interviews were held. The researcher had two people each draw a name of one of the participants in the interviews, and that person was awarded a \$20 gift card to thank them for their participation. Then the researcher sat in an area apart from the luncheon participants and observed the proceedings. Two of the principals joined in for the additional drawings about the "Say Something Nice" theme. Lunch was delivered during that time from a local restaurant and was set up buffet-style in the conference room. After the drawings, employees served themselves lunch and either went back to their desks, ate in the conference room, or ate at a large table set up in the lobby just outside the conference room. The principals did not stay in the lobby and conference room

area, and the group at the table in the lobby consisted mostly of employees from the civil department. That is consistent with many of the interview participants who stated that employees tended to interact and socialize only with employees within their own department. Everyone who remained together for lunch was cordial to one another, and there was a great deal of banter among and between the two groups: the group in the conference room and the group in the lobby. There was also "shop talk" mainly among employees in the lobby, since they were from the same department. The group in the lobby was slightly smaller than the group in the conference room, although the number of employees who participated overall was about equal between the two groups, with approximately 14 people participating in lunch together.

Approximately two months after the initial interviews, the researcher contacted the hiring manager to request follow-up interviews with two of the informants who had previously agreed to participate in subsequent interviews as well as requesting an interview with the organization's lone female engineer, Shelly, since she had not volunteered to participate previously. Because the researcher had been able to interview the only female engineer at the Lakeland firm, and both engineers were scheduled to sit for the next professional engineer (PE) licensing examination, the researcher felt that interviewing the female engineer at the Melbourne firm would be able to provide a wealth of information for comparative analysis. Morning appointments were scheduled for the following

week with the two follow-up interviews being conducted first followed by the interview with Shelly, the female engineer.

Appendix J contains a log of all participants interviewed from the Melbourne firm, including dates, times, length of interview, and participant's functional title.

The Lakeland firm. The engineering firm in Lakeland, Florida, is located just inside the western border of Polk County, Florida, approximately five minutes east of the city center of Plant City, Florida, in Hillsborough County. The firm is located in an industrial area located approximately one block south of Interstate 4, which is the major east-west highway linking the west and east coasts of central Florida. The area consists generally of isolated commercial and industrial properties, including major mining, warehousing, and distribution operations. The firm itself is structured as an umbrella company with four employees: the CEO, who is one of five remaining partners of the overall organization (two are deceased), two accounting/HR personnel, and one administrative employee. Underneath the umbrella company are three separate LLCs, only two of which are currently active. One is an engineering firm with its main focus on power engineering, and all engineers working in this division are electrical engineers. The other firm is newer and was set up to work on microwave and wireless projects. The head of that firm is a vice president, junior partner, and information technology manager for the umbrella firm. Under him is an operations manager and two

microwave technicians. There are no engineers in this division. The inactive firm is a general contracting firm with no employees currently assigned to it. The umbrella company is set up as a C corporation, while the two active companies are limited liability companies (LLCs). The inactive firm is a general contractor. All companies will be referred to interchangeably as either a company or a department and will be referred to overall as the firm or the organization. As with the Melbourne firm, the umbrella company performs the overall administrative functions for the organization, including accounting, finance, human resources, office management, marketing/advertising, and general administration, among others. The firms function as standalone companies, although there is some overlap on projects occasionally, and at least one of the engineers in the engineering firm, Brad, originally hired on with a view to working with both the microwave and engineering firms. While that has not turned out to be the case, Brad does consult with the microwave firm for their expertise on some of his projects. Because of their unique structure and focus, the Lakeland firm works on projects all over the world with as many international projects as domestic projects. They have a major industrial client in the area with subsidiaries in numerous locations, and the Lakeland firm travels as needed to work on projects for this client and others.

Franco is the hiring manager of the Lakeland firm and is also the CEO and a partner. He has been hiring most of the personnel for a number of years and very

carefully considers fit with the organization during the selection process, including asking several questions geared specifically for both fit and longevity. The hiring process at this firm consists of at least three interview sessions, the first of which is a phone call with Franco, followed by an in-depth, in-person, but casual conversation between the applicant and Franco, and then a formal interview with multiple people in the organization. The interviewers then meet to discuss what they learned about the applicant, their general impressions regarding the applicant's fit with the organization and its culture, and whether they feel the applicant would have a long-term commitment to the organization. Franco stated that some interview questions are designed specifically to determine perceptions of fit; however, he did not share the questions asked with the researcher. While some of the selection process follows Rynes and Gerhart (1990) insofar as the Lakeland firm considers fit based on such concepts as "chemistry" with the organization or interviewer perceptions of whether an interviewee is the "right type" of person for their firm, they are also much more systematic in their approach to hiring for fit. While some of the engineers have advocated for less emphasis on fit during the selection process, Franco stated he is not willing to compromise on that due to the critical nature of fit for their organization as a result of the unique and highly specialized work they perform.

The Lakeland firm was comprised of 19 total employees at the time of the study, although the organization was currently considering controlled growth to

train the next generation of partners and leaders as part of succession planning. They have currently named two junior partners, and at least three participants mentioned they would like to become junior partners and/or work their way into management and leadership positions within the organization. The researcher will use the composition of the firm at the time of the initial interviews. The organization has a broader range of titles than the Melbourne firm, due mainly to the very different fields the LLCs operate within. The organization consists of eight engineers, four of whom have earned their PE designation, plus an engineering intern, whom the firm is planning to hire upon completion of his degree. There were only two drafters in the organization, although they had recently hired a temporary drafter, since one of the permanent drafters was on maternity leave at the time of the initial and follow-up interviews.

All administrative personnel were assigned to the umbrella company, as mentioned above, and all employees in the microwave department are neither engineers nor drafters. There is one employee who is designated a project manager and who has a variety of duties and responsibilities. The following table breaks down the employee composition for the Melbourne firm:

Table 5
Employee Composition of the Lakeland Firm

Firm	Engineers (Incl. Partners)	Drafters	Micro- wave	Admin- istrative	Other	Total
Umbrella	1	0	0	3	0	4
Firm						
Engineering	8	2	0	0	1	11
Firm						
Microwave	0	0	4	0	0	4
Firm						
General	0	0	0	0	0	0
Contractor						
Totals	9	2	4	3	1	19

Of the eight engineers plus the engineering intern at the Lakeland firm, one is female, for a total of 11.11% female engineers. Of the two drafters, one is female (excludes temporary employee), for a total of 50% female drafters. Of the three non-engineering administrative personnel in the firm, all are female, for a total of 100% female administrative personnel. Of the four employees in the microwave department, none are female. Of the 19 total employees, five are female (one engineer, one drafter, three administrative), for a total of 26.31% female employees overall.

The researcher initially met with the hiring manager, Franco, who is also an engineer, partner, and CEO of the organization, to describe the study and establish parameters and logistics for the interviews as well as observing a meeting in the firm. Franco stated that they try to have a weekly engineering meeting with all personnel to discuss current and prospective projects and the status of each. They would try to see if they could schedule that meeting while the researcher was on site, depending on how many employees of the firm were available and present in the office. Based on anticipated length of interviews and number of employees who agreed to participate, it was decided to hold interviews on two consecutive days, since the researcher would be traveling to conduct the interviews, with the engineering meeting to be held after the second day of interviewing. The researcher would hold the drawing for the two gift cards just before leaving. The first day of interviews was scheduled for approximately a month after, which was two weeks after the initial interviews at the Melbourne firm were complete.

On the first day of interviews, the researcher interviewed eight participants: four in the morning and four in the afternoon with a break for lunch in between. Lunch became the observed meeting, since an insufficient number of engineers were in the office either day to conduct an engineering meeting. Interviewed personnel consisted of two engineers (including Franco, the CEO/partner/hiring manager), one drafter, two microwave personnel, the project manager, and two administrative employees. The researcher verbally explained to all interviewees

the premise of the study and why they were being interviewed, collected and explained their signed informed consent forms (Appendix D) and demographic forms (Appendix E), and outlined the follow-up interview process. The hiring manager was interviewed using the protocol in Appendix G, and the other participants were interviewed using the protocol in Appendix F. While some of the interviewees appeared to be naturally more reserved and therefore less forthcoming with their answers, resulting in shorter interviews, others provided a great deal of information with very little prompting.

The luncheon consisted of pizza delivered from a local pizza restaurant, and the researcher participated in the luncheon, not realizing that there would be no meeting to observe the next day. All the employees of the organization who were in the office that day participated, in a separate, large room with workout equipment and tables, so all participants were in the same location and could be observed more easily. As with the Melbourne firm, there was light banter among and between participants, including both the CEO and the president, who also had lunch with the group. The researcher sat at the table with the CEO, the president, and one of the administrative personnel. There did not seem to be any rigid recognition of hierarchy during lunch, although most participants referred to the CEO as "mister" during the interviews. Discussion centered around the amount of international travel several personnel had taken recently, since they were working

on a project in New Zealand currently and had recently worked on projects in Peru and in the middle east.

The following morning, the researcher interviewed the female engineer,

Barb, along with one of the microwave personnel and the remaining administrative

employee who had not been interviewed the day before. Following the interviews,

the researcher learned that there would be no engineering meeting because so many

of the engineers were out of the office. So, the researcher worked with one of the

administrative employees to hold the drawing for the two gift cards.

Appendix K contains a log of all participants interviewed from the Lakeland firm, including dates, times, length of interview, and participant's functional title.

Comparison of the firms. Table 6 below summarizes the two tables above (Tables 4 and 5) representing total number of employees at each firm. The "Other" category represents the project manager at the Lakeland firm, who is neither an engineer nor a microwave employee (he is a general contractor). The Melbourne firm has neither microwave employees nor a separate project manager position.

Table 6
Side-by-Side Comparison of Composition of Melbourne & Lakeland Firms

Firm	Engineers (Incl. Partners)	Drafters	Micro- wave	Admin- istrative	Other	Total
Lakeland Firm	9	2	4	3	1	19
Melbourne Firm	11	12	0	4	0	27
Totals	20	14	4	7	1	46

According to the hiring manager and several employees, the low number of designers/drafters at the Lakeland firm is due to a number of factors. First, the nature of the projects at the Lakeland firm is such that the engineers tend to do their own drafting, so the current drafting staff works on the firm's more "standard" projects. Also, there has been a general lack of leadership in the drafting team, which Franco stated he is currently working to correct. The two drafters currently at the firm have widely disparate skillsets, and even though those skillsets tend to be complementary, such that they work well together, neither has the leadership skills nor the desire to lead a drafting and design group. As part of the firm's overall controlled growth, though, this is one area the hiring manager has targeted for development.

A side-by-side comparison of the gender of employees also reveals similarities. The "Other" category in Table 7 below represents the microwave employees and the project manager at the Lakeland firm, which the Melbourne firm does not have.

Table 7
Side-by-Side Percentage Composition of Melbourne & Lakeland Firms

	Melbourne Firm			Lakeland Firm				
	Male	% Total	Female	% Total	Male	% Total	Female	% Total
Engrs	10	90.91%	1	9.09%	8	88.89%	1	11.11%
Drafters	9	75.00%	3	25.00%	1	50.00%	1	50.00%
Admin	0	0.00%	4	100.00%	0	0.00%	3	100.00%
Other	0	0.00%	0	0.00%	4	100.00%	0	0.00%
Total	19	70.37%	8	29.63%	13	73.68%	5	26.32%

Graphically, it is also easy to see similarities. The "Other" category in Figure 2 below represents the microwave employees and the project manager at the Lakeland firm, which the Melbourne firm does not have. Also, as discussed above, the Melbourne firm has a larger number of drafters/designers, since each of the four companies has two or more drafters/designers, whereas the Lakeland firm has two drafters/designers total.

0

■ Lakeland Firm Female

Employee Composition Comparison
Lakeland & Melbourne Firms

Other
Administrative
Drafters
Engineers

■ Melbourne Firm Female ■ Melbourne Firm Male

■ Lakeland Firm Male

10

12

Figure 2
Comparison of Composition of Melbourne & Lakeland Firms

Gender bias in selection. All the engineers at both firms have a bachelor's degree in an engineering discipline. Four of the engineers at the Lakeland firm have their professional engineer (PE) license, and one of the remaining engineers has a master's degree in business (MBA). All four of the partner/owners at the Melbourne firm have their PE, but the researcher was unable to determine if any of the other engineers are similarly licensed or if any have advanced degrees, although one of the informants mentioned at least one of the engineers in the civil department holds a PE. Both female engineers were scheduled to sit for the next available PE licensing exam at the time of the study. The most recent data

available at the time of the study from the U.S. Department of Education's National Center for Education Statistics (2017) for the 2014-15 academic year indicates that females earned 18.7% of the engineering and engineering technology bachelor's degrees. While that percentage has been trending upward since 2006-07, when it had fallen to 16.8%, these numbers indicate that female engineers are still significantly outnumbered by their male counterparts. Assuming that engineering graduates are hired in approximately the same proportion as their graduation numbers, it could be expected that female engineers would comprise approximately 18.7% of an engineering firm's engineers. Comparing that with the Melbourne and Lakeland firms, that is not the case:

Table 8
Percentage of Female Engineers at Melbourne & Lakeland Firms
Compared to National Average of Female Engineering Graduates

% of female graduates in engineering (2014-15)	18.70%
% of female engineers in Melbourne firm	9.09%
% of female engineers in Lakeland firm	11.11%

Science, technology, engineering, and math (STEM) fields in the United States have been dominated by white males, and the reasons for that are well outside the scope of this study; however, for the same study period above (2014-15), 64.51% of males earning a bachelor's degree in engineering were white (U.S. Department of Education, National Center for Education Statistics, 2017). Thus,

the potential for gender bias in hiring exists; however, given that less than 20% of engineering graduates are female (of any race), statistically firms should also be hiring female engineers at less than a one-in-five ratio. The hiring manager at the Lakeland firm, Franco, stated that he generally reviews resumes "blindly," meaning that when he reviews a resume on a job-posting website, the gender of the job searcher is not revealed. They also attend recruiting fairs at area colleges and universities, and they have hired several interns in the past who have been hired permanently upon graduation. This was the case for the female engineer they hired, so her gender was known at the time of recruiting.

At the Melbourne firm, the female engineer was hired as a result of advocacy by Becky, the hiring manager. At the time Shelly, the female engineer, was interviewed, the partner and another engineer in the department were considering hiring a male engineer they already knew; however, the hiring manager intervened. In Shelly's own words:

I think [Becky] asked [the engineer], is what he told me. You know, she asked [the engineer] and [the partner], "Why wouldn't you want to hire her right now?" and they said, "You know, there's no reason, and we just wanted to see what this guy was all about," and then she said, "Why bother if you already know that you like her?" She's like, "I really like her, and she did great, and you said she was great. Why wouldn't you just hire her?" So, they're like, "OK, I guess...yeah, there's no reason. Why would we schedule another one of these?"

Thus, subtle gender bias appears to be present in the hiring and selection process at the Melbourne firms, since the engineers at that firm appeared to need some prompting in order to hire a female engineer.

Both firms hire within their regional geographic area based on recruiting efforts, and, while both firms appear to have selected and hired qualified candidates, the Lakeland firm appears to have hired more independently of gender. In addition, the Lakeland firm is more systematic in their screening of applicants for fit, as Franco stated:

You know, and then there's fit within the organization, just generally. There's diversity that we'd like to achieve, but our population of candidates is very narrow, because one of the criteria I look for is, are they here...within our driving area? Because if I've got to relocate somebody from Michigan or somewhere else, there's always this concern of, are their families there and they're here, their whole cost-of-living expense is different...you know, the requirements are different, so unless they're living here now...I don't care if they came from there...but unless they're living here now, I tend to skip over those as well...And then you look at the electrical engineering field and how many graduates come out of that...that's even more the traditional white male, electrical engineer.

The Lakeland firm therefore limits themselves to a narrow geographic area, and they only hire electrical engineers, so their field of qualified candidates is usually very narrow, resulting in a restriction in range of whom they can hire.

As such, the research question: *Do hiring managers at small, for-profit* engineering firms in central Florida consider person-organization fit during the selection process, and does that process support gender-based hires? is supported

insofar as there is evidence supporting gender-based hiring in the Lakeland firm's selection process, and this firm more rigorously screens for fit with the organization. In addition, there is some evidence that the Lakeland firm has a more gender-neutral hiring process, given that the hiring manager often considers resumes without knowing the gender of the job searcher. In addition, if the hiring manager of the Melbourne firm had not advocated for hiring their female engineer, the firm would not have had any female engineers at the time of the study, although, as mentioned below, both firms have had female engineers in the past.

Selecting female engineers for fit. Hiring managers at both the Lakeland and Melbourne firms are aware of hiring for fit with their organization; however, the Lakeland firm proactively screens for fit in their interview process. The hiring process for engineers at the Lakeland firm consists of three phases. In the first phase, Franco, who is the hiring manager, will make preliminary contact with the job searcher, either by replying to a resume or job inquiry on a job posting website or by calling or emailing the potential employee based on a resume. Franco, occasionally accompanied by one or more engineers in the firm, also attends career fairs at regional colleges and universities where they conduct the preliminary screening on site. This screening phase is much less formal and is used as a means to get to know the applicant; determine their skills, desires, and goals; and attempt to determine preliminarily whether the applicant is a good fit with the organization.

If the initial screening results in a potential match, the applicant is invited to visit the Lakeland firm's offices to meet with Franco in person. That is a more indepth and formal interview process but is still conducted more casually to put the interviewee at ease with a goal to engage the applicant, elicit honest responses, and determine perceptions and goals. Franco outlined the first two steps of the three-step process:

[Initially, I review for s]killset and what that person wrote, and I'm more interested in what they wrote. You know, if they have a degree, they're probably smart and capable.

I do kind of a three-pass. The first is very unstructured, because I don't necessarily want to project the fact that, um, I'm hiring. I mean I do, but I don't. Initially, [it's] just a high-level discussion of what are their interests, what are they looking for; here's who we are, here's what we're looking for. If there's a fit...you know, but I'd like to spend some time just exploring, you know, how we might align.

[First is j]ust a pre-screening call, and then I'll bring the person in...very unstructured...and just maybe an hour-long discussion with this person. It's more centered on who they are, their background, where they come from, and how did they end up here...And then I ask them if, out of all that, if they're interested, and then I'd like to do more of a formal interview with them and bring them back again. And that's a little more structured...it's just getting to know one another and is there interest. And I have a list of questions. I can't remember them all off the top of my head, but there's probably 20 questions that I'm after; less skillset-oriented, more about their interest in this field. What do they view as success, both personally and in work? Where do they see themselves in five years? You know, all those leading questions.

If both the hiring manager and applicant are still interested in pursuing the opportunity after the first two phases, the applicant is brought back to interview with other engineers in the firm. The applicant will meet with engineers who are

available, and this third phase serves two purposes. First, it gives the firm's other engineers a chance to screen the applicant for compatibility, likability, and fit with the organization as well as allowing the applicant to meet with other engineers to get a feel for the firm's culture and further determine from their perspective if they would fit with the firm. The hiring manager at the Lakeland firm stressed several times that hiring for fit with the organization is important not only from the firm's perspective but from the applicant's perspective as well.

The constraint to this process, as mentioned above, is that the Lakeland firm only hires engineers who are already located in their geographic area and have an intention to remain in the area and grow with the firm. According to the hiring manager, they hire for longevity, partially as a result of their continuity plan to bring in and train the firm's future leaders and partners to take over once the current partners retire. Given these constraints and the fact that only one in five engineering graduates is female (see above discussion), it is difficult for the Lakeland firm to find and hire female electrical engineers. It is important to note here that the percentage of electrical engineering degrees awarded to women is even lower than the overall percentage of engineering degrees earned by women. As mentioned above, according to the U.S. Department of Education's National Center for Education Statistics (2017) for the 2014-15 academic year, 18.7% of the engineering and engineering technology bachelor's degrees were earned by women. For that same period, according to the American Society for Engineering

Education, only 12.5% of electrical engineering degrees were awarded to women (Yoder, 2015)³. Given this information and the fact that the Lakeland firm only hires electrical engineers due to the nature of their business, the firm's lone female engineer brings the percentage of female engineers closer to the national average:

Table 9
Percentage of Female Engineers at Lakeland Firm
Compared to National Average of Female Engineering Graduates and
National Average of Female Electrical Engineers

% of female graduates in engineering (2014-15)	18.70%
% of female graduates in electrical engineering (2014-15)	12.50%
% of female engineers in Lakeland firm	11.11%

The Melbourne firm, by contrast, hires engineers for each of their four disciplines: electrical, mechanical, structural, and civil. The only engineer in the structural department, however, is the partner. So, per Table 9 above, the Melbourne firm has slightly less than half the national average of female engineers in their firm: 9.09% at the Melbourne firm versus the national average of 18.70%. Even though the Melbourne firm considers fit with the organization during their selection process, they tend not pursue it as rigorously as the Lakeland firm. Their model of hiring for fit follows Nolan, Langhammer, and Salter (2016), where selection occurs based on more instinctual measures of fit with the organization,

³ The author of *Engineering by the Numbers*, Brian L. Yoder, Ph.D., publishes this document each year for the American Society of Engineering Education. For the 2016-17 academic year (the most recent edition of the report as of this writing), female graduates earned 13.7% of all awarded bachelor's degrees in electrical engineering.

and Rynes and Gerhart (1990) where selection occurs based on constructs such as perceived "chemistry" with the organization or interviewer perceptions of whether an interviewee is the "right type" of person for their firm. The Melbourne firm has hired female engineers in the past, although participants only mentioned one specifically. That engineer was married to a current engineer at the firm. Both worked in the civil department, and the wife left after they had a child. The husband was still employed in the civil department of the Melbourne firm at the time of the study.

Both engineering firms are aware of hiring for organizational fit, and the Lakeland firm intentionally and systematically considers P-O fit during selection, but neither firm selects more women compared to the national average for female engineering graduates. Thus, Subquestion 1: *If hiring managers are aware of and intentionally consider P-O fit, do they select more women as engineers than firms which do not?* is not supported. The Lakeland firm, which intentionally considers and hires for fit more rigorously than the Melbourne firm, is closer to the national average in terms of percentages for both hiring of female engineers overall and hiring of female electrical engineers specifically; however, the differences are not great enough to state definitively that the Lakeland firm selects more women as engineers than the Melbourne firm.

Gender bias in hiring decisions based on fit. Both the Melbourne and Lakeland firms have hired female engineers in the past, so even though they currently each have one female engineer, they both have some history of hiring women. As mentioned above, information gleaned from both Sharon and Shelly at the Melbourne firm's civil department indicates that one of their former female engineers in the civil department left recently after having a baby, resulting directly in the hiring of Shelly, the current female engineer. The Lakeland firm has also hired female electrical engineers in the past. According to one of the partners, they had a female engineer who worked for them around the 1996 or 1997 timeframe, and another who worked for them for about a year right around 2000.

While Franco, the hiring manager at the Lakeland firm, does not specifically set out to hire female electrical engineers (or any other protected class), he has interviewed female applicants in the past and stated he would definitely hire a woman if he was able to find one who fit the firm's hiring criteria. Franco stated in his interview for this study:

I've reached out to another individual who turned out to be a female, and she met all the qualifications; just was very polished and a new grad, um, and it was a long interview on the phone, but very quickly, her aspirations were academic. She wanted to go on for a master's, get a doctorate. That was her career path...so when you really get down to what did SHE want, it was not what we do. So, we mutually agreed, yeah, probably not the right fit.

So, even though the Lakeland firm intentionally hires for fit with the organization, because they hire from such a narrow geographic area and because

they hire only electrical engineers, there is a restriction in range of the pool of qualified, available candidates from which they can choose.

As stated previously, both the Melbourne and Lakeland firms hire for fit with the organization, although the Lakeland firm screens for fit much more rigorously. In the latter case, the firm has continuity plans in place for long-term growth. They are currently in a controlled-growth phase and are hiring for both compatibility with current mission, goals, and projects as well as for longevity. Several of the participants from the Lakeland firm indicated that they would like to work their way into management positions, first as junior partners, then senior partners. The firm currently has two junior partners who are expected to become senior partners once the current partnership begins retiring. That is one of the main reasons they are so careful about hiring for fit with the organization's culture and climate. The hiring manager stated that the newer, younger engineers are bringing in new technologies and processes that will serve the firm well in the future. They are also hiring engineers who are committed to contributing to the firm in the long run. One of the newer engineers, Brad, was drawn to the firm initially by their wireless and microwave capabilities, which were an area of interest to him. The microwave division uses cutting-edge technology to build, configure, and deploy hardware. According to Brad:

At the time, in school, I was really big on wireless as well, so I guess that was the key aspect, was that technical side of, maybe I could do

both and help grow the business that way...I saw an opportunity there to help grow, so that's what attracted me.

Brad was originally hired into the firm through a career fair at a large, regional university on the west coast of Florida. He was a co-op student who was hired upon graduation. After completing several years at the firm, he and his wife had their first child and decided they wanted to move back to the east coast of Florida to be near family. Because he was very well liked at the firm and considered a hard worker, the partners offered to keep him on as an employee and allow him to open a branch office on the east coast. By that time, Brad had obtained his PE license, so he moved his family to the east coast, about midway between Melbourne and Palm Beach, Florida. He was also promoted to Vice President of East Coast Engineering and Operations. Both Brad and the hiring manager stated in their interviews that they foresee Brad moving up within the firm to full partner someday.

In addition, one of the drafters, James, stated that he has not only learned the Revit drafting software, but he likes to write computer programs that will run some of their repetitive projects in a fraction of the time it would normally take the two drafters to complete them using their current software and technology. His background was in computer programming, and he has an associate's degree in computer-aided design and drafting. As James stated:

(M)y programming expertise allows me to write scripts, lists, programs, that, I do it right the first time. It probably would take two times as long as she [the other drafter] does, but once I click that, the computer does it 50 times as fast as she does. You know, so, it may take me an hour to do something that it takes her 15, 20 minutes, but next time, we say we need 200 of those things done, I click a button, and it's done in 15 minutes instead of a day, or 30 minutes instead of a day...You know, because then I say, here's that tool, and instead of her having to do it in 15, 20 minutes per drawing or per 10 drawings, she does it in 30 minutes for 200 drawings.

This all speaks to a firm that is innovative and creative and understands the need to stay current with engineering processes and technologies to thrive and survive.

By contrast, the Melbourne firm appears resistant to new technologies. While one of the younger drafters, John, indicated that he had learned the Revit drafting program (which allows designing in 3-D), it's not clear whether the partner in his division prefers it, although John did mention that most structural engineers use Revit now for modeling and designing instead of AutoCAD (a 2-D system). John is actually the son of the partner in the structural division and was hired as a drafter by his father. Even though he plans to eventually start his own contracting company, specifically in metal buildings, he has been with the firm learning the drafting side for two years. At the time of the study, he was already starting to work on projects outside the company as a side business and hoped to make it a full-time business at some point. With regard to drafting using both AutoCAD and Revit, John explained the differences in the two tools:

I like modeling the projects into Revit. It's the actual time when you're not answering phone calls, you're not doing emails; it's when I get that—the first—beginning of the project, and I'm actually modeling that project in, which is the fun part. It's the best process, when I can have that couple hours just to sit there and actually build it. In this office, that's what we all come here to do, is to build really cool projects, and that software...That's the software that we use. That's my main job, is to...That's like the new CAD that primarily all structural engineers use now, is Revit...It's, uh, CAD is 2D and Revit is also a 2D and 3D program. It makes sense for structural engineering...That's why I like that because you're actually modeling this thing, and it's coming into a 3D view, so you're modeling it in a 2D space and then you have another element where you bring that in and you can actually see it. That's why...you're really building it in a program. It's not just drawing lines.

In another division, one of the designers, Mary, designed a scheduling and tracking system for projects in Microsoft Outlook, their email client; however, she was unable to convince anyone to adopt it long-term:

I tried to help them, again, with the scheduling and setting up the company calendar. And at first, you know, they're like, "Oh yeah, this is great." Then they never used it, and now they're using this spreadsheet that they pass out once a week, so in some ways, I feel like I'm trying to help implement some things that would help them, because I saw these things work for 18 years. I feel like I might have stepped on some toes, so that's where...I kind of stepped back a little. (U)sing Microsoft Outlook—the calendar feature and doing a company calendar—just to help—um, I find it easier to see when projects are due by glancing at a calendar. As opposed to having a sheet of paper with a list of items. They had no system up until I did the schedule, and then they decided to use a spreadsheet.

Mary had been with the firm for two years at the time of the study; however, she had been an electrical drafter for approximately 20 years. She and her husband had decided to move to Florida from North Carolina because they are

both surfers and wanted to be closer to the coast than they were in North Carolina. She started out as an administrative assistant for an engineer and had picked up drafting to fill her time on the job. She then worked her way to a full-time drafter for three different engineering firms before securing her position at the Melbourne firm. She was attempting to bring some of her organizational and process skills to the Melbourne firm that she had learned over the years. Several participants mentioned that the firm had purchased a Microsoft Project license; however, no one seemed to be using it according to these participants.

Finally, the firm does not seem to have any concrete plans for continuity, so the future of the firm does not appear to extend beyond the retirement of the current partners. The only mention of firm continuity was by Sharon, who is an executive assistant and permitting technician in the civil department. She stated, "I think [the partner] has a good 15 years before he starts looking at selling the business," which was the only indication that anyone was considering continuation of any of the divisions. This firm appears to lack the innovation and technical advancement that the Lakeland firm enjoys, which appears to suit them, since they are not lacking for new projects and were extremely busy at the time of the study. Similarly, the Lakeland firm was also enjoying a particularly busy period at the time, which was driving their controlled growth.

Thus, the structure of both organizations works well for each firm, although there was some evidence of greater job satisfaction at the Lakeland firm. Every participant there indicated satisfaction with their positions. Two participants (both administrative) indicated difficulty in communication with other employees, one of whom stated that it was affecting her ability to perform her job; however, both participants also stated that they were able to get along well with everyone in the firm. In fact, the researcher was unable to elicit any negative opinions from any participant about any other employee there. More than one participant indicated there had been employees in the past with whom they did not get along, and one employee in particular was alleged to have been engaging in unethical practices; however, that employee was let go several years prior to the study. Overall, though, a high level of both commitment and loyalty to the firm was indicated by all participants.

Two of the participants at the Lakeland firm exemplify the level of commitment and loyalty typical of employees there. Brian, the project manager, was originally hired for a division which is currently inactive as a general contractor. He is related to one of the first administrative employees hired at the firm (who retired many years previously) and was hired through referral. During the economic downturn beginning in 2007-2008, Brian took a reduction in pay so that he could remain with the firm. The hiring manager stated that they did not let anyone go during that time, and Brian was aware that it would have been extremely difficult to find another position then because the construction industry was

profoundly affected, and no one was hiring general contractors. So, he remained with the firm, and, in his own words:

There's probably a good drought of about four years, three years of just, what are we going to do with you now, because the construction industry was still kind of, um, there was a government administration change at the time. The eggs that we had in the basket were basically government, military base work, and there were a lot of these construction-ready programs that, when...so that dried up, but there was always the perspective that they could come back around, so they lingered with me, and I took a pay cut to stay.

In a follow-up interview, Brian stated that his salary level was eventually reinstated, and the firm found work for him to do. His role has evolved and changed over the years, so by the time of the study, he had plenty of responsibilities and work. He stated that he feels all the employees of the firm are friends in addition to being coworkers. He personally feels deep loyalty and commitment to his employer partly because they were loyal to him at a time when being laid off might have been disastrous.

Another participant, Jackson, was originally hired for a now-defunct division of the company that was sold off. Jackson is the son of one of the administrative personnel and was hired by referral. Once that division folded, Jackson was brought back to the newly formed wireless company, where he has worked his way up to operations manager. Again, the firm was unwilling to lay him off and worked hard to find a place for him and reassign him. Jackson spoke to that level of loyalty by an employer:

I don't want to speak out, because you hear things, but what they went through to keep their employees was incredible. Nobody does that.

Finally, several participants mentioned that, at one point during the economic downturn, it looked as though the firm would be unable to provide bonuses to the employees, which they had done every year since the current partnership was formed. So that they could keep the tradition alive (bonuses are always awarded around Christmastime), the partners contributed personal funds, in the form of salary reductions, to a pool that was distributed as bonuses to their employees. Each of the participants who mentioned that situation did so reverently and with amazement at the level of loyalty the firm showed to them. That kind of loyalty breeds loyalty on the part of employees also, at least according to the participants at the Lakeland firm.

The majority of participants at the Melbourne firm also indicated overall satisfaction with their jobs; however, several participants mentioned incidents that indicated possible systemic gender bias. In addition, while no participant indicated an intention to leave the firm in the immediate future, there was also significantly less commitment and loyalty indicated vis-à-vis the Lakeland firm. Long-term employees like Sharon stay out of loyalty to the partner of their division. When asked to explain why she had stayed with the firm for more than 12 years, she stated simply, "It's dedication to...the boss." She is the same employee who had seriously considered leaving not all that long before the study, partly due to an

employee with whom she had issues. She had started looking for other employment, albeit not seriously, and asked for a raise at the Melbourne firm, which was granted. The employee with whom she had issues was terminated for several reasons. This was corroborated by Becky, the hiring manager.

Both Mary and Shelly experienced incidents indicating possible gender bias post-hire, and Shelly experienced multiple such incidents. Mary stated that she did not intend to leave the firm and was working to resolve the situation, whereas Shelly indicated that she was having a difficult time getting over one of the incidents and had thought about leaving the firm as a result. The incidents will be discussed below in the post-hire gender bias findings.

Several other participants stated that, while they had no intention of leaving the firm at the moment, if an ideal opportunity presented itself, they would certainly consider taking it. That was not the case at the Lakeland firm where almost all participants made no such conditional statements regarding their intention to remain with the firm.

The participants at both firms affirmed that they were generally satisfied with their positions and generally did not intend to leave the firm. This was true for both male and female employees, which could be seen as an indication that no gender bias existed at the time of hire of any of these employees. The indication of greater satisfaction and loyalty as well as unqualified intention to remain at the firm

that hires specifically for fit with the organization was an interesting finding, though.

Appendix L lists the major themes discussed with participants. These themes are related to the research questions and include subtopics related to the themes. Some of the themes are directly related to the research questions, such as the hiring process as it relates to hiring for organizational fit and fit with culture, among others. Other themes are related to the outcomes of the process, such as job satisfaction, work/life balance, and intention to turn over, among others. The appendix lists the frequency the theme was discussed with participants and which participants specifically discussed that particular theme.

Thus, regarding Subquestion 2: If hiring managers are aware of and utilize P-O fit, is there evidence of greater gender bias in their hiring decision than firms which do not? there is modest support indicating a lack of gender bias in the hiring decision of the firm which specifically and systematically screens for fit. The research question specifically addresses the selection phase of the hiring process, and there is no indication of gender bias in hiring at the Lakeland firm, which specifically screens and selects for fit with the organization. Indeed, the hiring manager at the Lakeland firm stated he would like to hire female electrical engineers, but they are difficult to find for a number of reasons previously stated. By contrast, the Melbourne firm is aware of P-O fit, but there is also a subtle

indication of implicit gender bias in their hiring decisions, at least with regard to hiring of their only current female engineer.

Emergent theme: Employer-employee loyalty. In addition to findings of support for the research questions in the present study, the emergence of additional findings outside the scope of the original focus of the study are intriguing and promising for future research. As noted above, the researcher found a significant difference in post-hire loyalty among employees of the Lakeland firm, which specifically hires for fit with the organization and its culture and spends more time screening for fit in the hiring process. As mentioned, several participants at the Lakeland firm recounted examples of the firm's loyalty to them, resulting in increased commitment and loyalty on their part toward the firm. Even though some of the employees were hired based on relationships with existing employees, they were hired using the same screening process as all employees, so they were rigorously screened for fit with the organization's culture and were hired for longevity in addition to their skillset. The lone exception is Samantha, who was married to one of the original seven partners. She began working for the firm as a volunteer to help with the accounting, finance, and human resources activities. That was 16 years prior to the time of the study, and she has worked her way into an office manager position. She remained with the firm even after her husband

passed away unexpectedly approximately two years prior to the study period. That, in itself, demonstrates a level of loyalty and commitment to the organization.

The firm has shown its loyalty to all employees over the years. In addition to the examples above, which include:

- (1) Brian was not laid off during the economic downturn and agreed to take a reduction in salary during that time;
- (2) Jackson was hired into another one of the firm's subsidiaries when the subsidiary he was working for was sold off;
- (3) Multiple participants mentioned the year during the economic recession when the partners took a salary reduction, so they could set aside enough money to be able to distribute bonuses;

another employee, Sarah, related an example of the firm's loyalty and commitment to her. Sarah is an administrative assistant who was hired to replace an employee who was let go for unethical practices. Samantha, mentioned above, who is friends with Sarah, referred her for the position, because Sarah was not treated well at her previous firm. Sarah spent a great deal of time interviewing with Franco, the hiring manager, and she was impressed with the interview process for its thoroughness and the apparent caring nature of the hiring manager and the firm in general. So, she was excited to begin working there but was not expecting a bonus that year. As she put it:

I started on 10/27, so it was...I had two months the year of 2014, and they gave me a bonus, and I literally was like, "What? Why are you giving me a bonus? What have I done?" I'm like, "Thank you," and they're like, "I know it's not much," and I'm like, "Are you kidding me?"

In addition to being treated fairly and receiving a bonus two months after beginning employment, Sarah stated she has received "more raises than I've ever experienced." She loves her job, and she loves the people she works with even if she sometimes has difficulty communicating with some of the engineers and ensuring they submit their time for the projects they work on. The level of job satisfaction, commitment, and loyalty to the organization was palpable during her interview.

The same level of loyalty was not found at the Melbourne firm. While the participants interviewed there were generally satisfied with their jobs and were committed to remaining with the firm, several mentioned that they would definitely consider leaving if they found a good opportunity elsewhere. This is an indication which supports Wheeler et al. (2007), who studied the moderating factor of viable job alternatives as an influencer of intent to turnover when P-O fit was poor, and the employee was dissatisfied. They found that poor P-O fit might lead to job dissatisfaction, but unless the dissatisfied individual also perceived that other work opportunities exist, that individual would not leave the current position. This helps to explain the weaker link between P-O fit and intent to turnover.

In addition to John, the drafter who is the son of the principal in the structural engineering department discussed above, who plans to open his own firm in a couple years, and Sharon, who had started looking for other opportunities but stayed out of loyalty to the partner in her department after receiving a raise, Frank's response was typical of participants at the Melbourne firm when asked if they intended to remain with the firm. Frank, a designer in the electrical department, had a background in the electrical field, having worked as a superintendent in an electrical company prior to learning electrical design. When asked if he had any intention of looking for other opportunities, he responded:

[H]ere, I can say that, unless something comes up and smacks me in the face...something I'm really looking for, so...no. I'm not saying I'd turn it down if it came up, depending on what it is.

That's in contrast with Brian at the Lakeland firm, whose response was representative of the majority of informants there, when asked the same question:

But personally, the way they relate to me, I don't see any reason to look for work [elsewhere], even though I could probably make more somewhere else.

At the Lakeland firm, several participants cited the fact that they were treated so well as a factor in their loyalty and commitment to the organization, whereas at the Melbourne firm, consideration of their current situation did not apparently factor into the decision to leave if something better came along. This is consistent with the findings of Seifert, Brockner, Bianchi, and Moon (2016), who

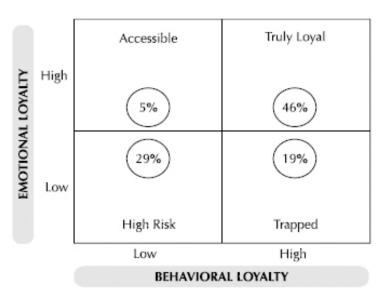
found that fairness in the form of application of rules and trustworthiness of line managers increased commitment in employees.

Loyalty in the workplace has not been studied extensively in the United States, and the bulk of the academic literature has tended to concentrate on customer and brand loyalty. A limited stream of academic loyalty literature exists internationally, focusing mainly on loyalty as it relates to job performance and commitment (c.f., Chen, Tsui, & Farh, 2002; Esmaeilpour & Ranjbar, 2018; Valentine, Godkin, & Lucero, 2002). For example, a study by Brown, McHardy, McNabb, and Taylor (2011) focused on the relationship between affective commitment, loyalty, and firm performance, finding that increased commitment and loyalty on the part of both employees and employers led to increased performance.

Loyalty does not necessarily mean an employee will remain with a firm, however. In his book, *The Tao of Loyalty: Winning with Employees*, Rao (2006), described two different types of loyalty: attitudinal/emotional loyalty and behavioral loyalty. He defined emotional loyalty as "the positive disposition that an employee has towards the organization, the 'feel-good' element or how psychologically wedded the employee is to the organization" (Rao, 2006, p. 27). Behavioral loyalty was defined as "the intention to continue working in the organization or advocacy—likelihood of recommending the organization as a good place to work" (Rao, 2006, p. 34). The segmentation of these two types of loyalty

determine an employee's overall loyalty and can be used to determine whether an employee is likely to remain with an organization. Figure 3 below depicts the four quadrants into which employees may be segregated based on their level of emotional and behavioral loyalty. Employees with both low emotional and low behavioral loyalty are at high risk of leaving an organization (bottom left quadrant), whereas employees with both high emotional and high behavioral loyalty are considered truly loyal and account for the majority of employees (top right quadrant).

Figure 3
The Loyalty Segmentation



Theoretical model framework is credited to Dick & Basu, Journal of the Academy of Marketing Science, 1994. Matrix classifications are based on a proprietary statistical algorithm developed by Walker Information Interestingly, a study by the staffing firm Randstad and market research firm RoperASW reported in the *Edmonton Journal* (Debock, 2002) that, while 70% of employers felt they were loyal to their employees, only 41% of employees agreed. Similarly, a recent study published by the Society of Human Resource Management (Wilkie, 2018) found that 82% of workers felt loyalty toward their employer, but more than half (59%) would leave the organization if they found the right opportunity, similar to Frank's sentiments at the Melbourne firm above. A majority of participants in the Lakeland firm agreed that their employer was loyal to them and extrapolating to the firm as a whole would mean that the Lakeland firm exceeds the percentages found in the *Edmonton Journal* report above, and the findings of loyalty on the part of both the employer and employees at the Lakeland firm would seem to support that intentionally and rigorously hiring for fit with the organization results in greater loyalty to a firm, at least as far as employees are concerned.

Emergent theme: Post-hire gender bias. Another interesting finding of the present study was evidence of post-hire gender bias, especially at the firm that does not screen for organizational fit as rigorously. The study sought to discover whether gender bias could be found in the selection process and whether screening for fit with the organization and its culture made a difference in gender-based

hiring. The interview protocol, however, specifically asked about job satisfaction and fair treatment on the job post-hire, which elicited interesting responses from some participants. While no female employees at the Lakeland firm reported any incidents of potentially biased treatment based on gender, two female employees at the Melbourne firm did. Four out of five total female employees at the Lakeland firm were interviewed (the fifth was on maternity leave), and five out of eight total female employees at the Melbourne firm were interviewed. In addition, the female engineer at the Lakeland firm, Barb, had previously worked at civil engineering firms where she stated that gender bias was evident. Conversely, the female engineer at the Melbourne firm had previously worked at a civil engineering firm also, and she did not indicate any gender bias toward women at that firm, although the topic was not specifically discussed, and Shelly only indicated that she had been treated well there.

Mary is a designer in the electrical department in the Melbourne firm. She came to the firm with over 18 years' experience in drafting and design. She is a petite woman who communicated very clearly and very well during her interview. She related an ongoing incident regarding communication with another designer in her department:

Sometimes I feel like I get left out of the loop with communication, and that gets very frustrating. I feel like it's me specifically. Instead of telling another designer [about] changes he wants to make on a project he knows I'm working on, tell me. That's where—I can't figure that out—I mean, any time I've tried

to approach anything about the communication, it gets thrown back that it's—I'm not communicating well. Yeah, and I don't get that either...So, I don't know. Maybe it does have to do with being a woman. Maybe he's not as comfortable...even in the past, you know, I've had contractors or architects say, "I've never worked with a woman before," and I say, "Well, it's no different."

I have brought it to [the partner's] attention, and I don't know if it's...if he's busy, or what, it's "Well, that sounds like a communication problem for you" or "on your end," and it's like, well...I think it's just that he's very busy and hasn't thought it through.

I've been in this business longer than he has, and I truly think he felt threatened, so it was like, well, we'll just keep throwing the curveballs, and see where she lands.

In a follow-up interview with Mary, she stated that there had been a lull in the communication issue because the person who was not communicating with her was out of the office for a time:

Umm, [he] was out quite a bit the last month, you know, various ailments...and this, that, and the other, so [the partner] actually started coming to me a little bit more. But now that it seems like everyone's back, and with [the new designer] here, meh, it's basically back.

Shelly is the lone female engineer at the Melbourne firm. She had previously worked for another civil engineering firm in northeast Florida, and she and her then-boyfriend (now husband) wanted to move back to the Melbourne area to be closer to their families. As stated above, the hiring manager advocated for hiring her there, since the partner and one of the more senior engineers in the civil department were considering hiring a male engineer that the senior engineer knew.

Once she was hired, however, she seemed to be treated differently than her male counterparts. The following incidents (which appear to be ongoing) were corroborated by Sharon, who also works in the department:

[Another engineer in the department] is the only other person in my department who has the same position that I do. We're about the same age, we have the same amount of experience, we're in the same position; however, I do not feel like we are treated the same...Um, he gets less [projects to work on]. Like, I work on—I have worked on, let's say 98% of the projects that come into our department. Yes, and he's probably worked on 20%. My hand is in every single project, except for a couple that are, you know, really tiny...I think he's—I think this is to his detriment and not mine, though—you know, it depends...And I've brought it up before, and then [the partner] will give me more work but not take any away.

[A]t the same time, when I make a mistake, he will call the entire group together and tell everybody—Like, I tried to talk to him about a project in private. I'm like, "Look, you're asking me to do this, but that's not correct." Like, what he was asking me to do, I knew was wrong. I was like, "This isn't how we do this kind of design. This is how we do it. This is the standard." And then, he wouldn't listen to me and calls the whole group together. "Now, we made mistakes on this, and did this this way, blah, blah, blah" and I had to cut him off, which I didn't want to do because that makes me look like a jerk. And then I'm like, "Hey, I tried to talk to you about this. You're wrong." And I'll go in and talk to other professional engineers in the department before I will even go in and tell my boss that he's wrong.

So, if I find out that I did something and it's not correct or there's a mistake or something like that, I will go and do research to figure out how to fix it and what I did wrong before I'll ever even go and approach him about it, so we can have a solution. Or, I'll talk to the other engineers, like, "Hey, like, what do you think about this?" But he will call me out in front of everybody.

Apparently, Shelly is the only one who is "called out" in front of the entire department when she makes a mistake. According to both Shelly and Sharon, if other engineers make a mistake, the partner will simply talk to them privately about correcting it.

The researcher asked several follow-up questions in an attempt to determine why the two engineers were treated so differently, including whether Shelly's gender could be the issue:

See, my husband—I said stuff like that in the past, and my husband will be like, "No, that's a cop out. You can't say that." But he's also a privileged white male who won't admit it. He might say, or one might say I get more opportunities because people don't want to be biased towards women, so they will purposefully hire me because I'm a woman. But I don't believe that.

In another incident unrelated to work, Shelly was treated far worse by a designer in one of the other departments:

Yeah, um, [he was] like, "Hey, Shelly, can I talk to you for a second?" And I said, "Yeah, sure, just a second, but I'm not getting you a cup of coffee." Because [he] always has someone else get him a cup of coffee. Granted, he's disabled, so that was not appropriate. I mean, I thought it was funny, but I didn't think it was that hurtful.

Well, he didn't say anything, so I came over there, and I was like, "I was just kidding. I really would get you one." I even said that: "I really would get you a cup of coffee if you asked me." I was like, "That was just a joke." I hope I didn't offend you. But I didn't say that. I mean, I didn't say "I hope I didn't offend you." I just said, "Sorry, I was just kidding"...[W]e had a conversation about the project, and then everything was cool. I thought he was fine. Then, two days later, I was in here at, like, 7:00 in the

morning—or 7:30ish, and a couple people in my department had left to go get coffee, and it was me and Sharon and [another engineer]. So, [the other engineer] came in, and the guy who was upset was like, "Hey,...I need to talk to you." And [the other engineer is] like, "OK, let me put my stuff down, and I'll come back." So, [the other engineer] comes back, and the guy just started ripping him a new one—like yelling, like, all these obscenities, saying "You need to keep that effing whore engineer's mouth shut."

I heard him, and I was like, "Man, who's he talking about?"...he was saying things like, "That bitch engineer" blah, blah, blah. And I stood up, and I was like, "Oh my god, Sharon, he's talking about me." And she was like, "Why would he be talking about you?" And I said, "I have no idea." I was like, "All I can think of is I made some joke about not getting him a cup of coffee." You know, I was like, "Other than that, I haven't talked to him." So, he was ranting and raving, and [the other engineer] storms off and sits down, and he's like, "He's nuts. He's off his rocker" blah, blah, blah.

Oh, and he jokes around with everyone else...I do feel bad for him because he has medical issues...And other people joke around with him, and I wasn't even the first person to make the stupid coffee joke.

The incident was investigated by the hiring manager and the partners of both companies (civil and electrical), and the designer was asked to apologize for his tirade, which he did. The incident has had a lasting effect on Shelly, however, to the point where she has thought about leaving the firm.

At the Lakeland firm, Barb is the female engineer. She earned a degree in elementary education in Ohio but says she "never did find a job with that." After she and her husband moved from Ohio to Florida in 2000, she began pursuing a degree in civil engineering. While pursuing the degree, she worked at more than

one civil engineering firm, and after seeing how they treated women engineers there, she decided to change majors to electrical engineering.

I worked in a couple civil engineering firms, and I saw how they treated women in the field. Um, my husband's an electrical engineer. We would go to work with him on weekends and stuff, or I'd go in sometime when I wasn't working, and they treated the women electrical engineers much better...than the civil engineers treated the women.

In a follow-up interview, when asked how the female civil engineers were treated, Barb stated that they were not given the tools to work on projects and were basically set up for failure. The female engineers at the firms she worked at ended up leaving the firm.

When asked if she was treated any differently because she is a woman, Barb stated that the engineers at the Lakeland firm make allowances for her by assisting her with lifting and moving heavy equipment. Barb also volunteered that she believes she is paid slightly less than her male counterparts but said that was acceptable to her, because she is the engineer in the family who must leave early to pick up children or take them to appointments or stay home with them when they are sick. Her husband, who is also an electrical engineer, does not perform these chores by agreement. The couple discussed it and decided that they prefer that he be able to focus on his work, especially since he earns more than she does, having been in the electrical engineering field longer.

It would be tempting to conclude that civil engineering firms are mostly to blame for unfair treatment of female engineers, given that Barb witnessed gender bias at multiple civil engineering firms, and Shelly experienced it working for the civil engineering department at her firm; however, there are obviously not enough data points to make the claim that it is only civil engineering firms that do this. In addition, the designer at the heart of the "coffee joke" incident with Shelly worked in the electrical department at that firm. So, while it does appear that there is evidence of gender bias in some engineering firms, and the incidents of bias occurred in firms that do not necessarily hire or screen for fit, it would be premature to conclude that hiring for fit reduces or eliminates gender bias post-hire.

Appendix M lists the emerging themes discussed with participants. These themes are not directly related to the research but emerged in discussions with the participants. The appendix lists the frequency the theme was discussed with participants and which participants specifically discussed that particular theme. Because the topics emerged unprompted and were discussed by multiple participants across both study firms, both topics may be worthy of further study as discussed in the next chapter.

Summary: The researcher was able to find support for the research question as well as one of the two subquestions in the present study. There was a definite difference in the amount of time, effort, and rigor the two study firms expended in

screening for fit. The firms were demographically very similar and had remarkably similar cultures. They were good selections as far as studying the hiring process and person-organization fit, as well as being ideal for a comparative case analysis of gender-based hiring and gender bias. The partners and hiring managers at both firms were cooperative and accommodating, and the participants were, for the most part, engaging and forthcoming. More than half of the employees at both firms volunteered to participate in the initial round of interviews, and every participant volunteered for a follow-up interview. While all participants were offered the opportunity to review the transcript of their interview, only those who participated in follow-up interviews assented to such a review.

Because the study was conducted utilizing engineering firms, however, the researcher believes there was a significant constraint in discovering whether gender bias exists in the selection process. Because women comprise less than 20% of engineering graduates, the available pool of candidates searching for jobs at any given time is necessarily limited. This may be compounded at smaller firms, depending on whether female engineers, as a whole, prefer to work at a large firm or a small one. The Lakeland firm is additionally constrained in that they only hire electrical engineers, which encompasses an even smaller percentage of female engineering graduates, and the fact that the firm hires from a relatively small geographic area. As such, the researcher believes the results may have differed if

study firms were selected from a different industry or discipline or if larger engineering firms were studied.

As stated, in addition to findings related to the research questions, the study findings indicated two emerging themes that had not previously been considered or addressed in the study parameters or methodology. The future research potential for both emerging themes will be addressed in Chapter 5. Overall, then, the researcher feels the study was successful, even with lack of support for one of the research subquestions. There were enough surprises and unconsidered findings in the present study to provide foundational theories for a great deal of additional research, and the emerging themes do not appear to have been studied extensively, or indeed very much at all, which opens some exciting possibilities for the future.

The findings and results of the study are reliable in that a finding of a lack of support for one of the subquestions is, in itself, evidence of impartial and unbiased conduct as well as being valid by indicating that the research strove to answer specific questions, which were ultimately answered, both positive and negative. Having conducted and transcribed all interviews, and analyzed all data using the NVivo qualitative data analysis software, the researcher felt that any personal biases were able to be compartmentalized and bracketed out of the study as stated in Chapter 3. In addition, the data collected was corroborated through the luncheon observations as well as with the follow-up interviews. Interactions among and between study participants at the luncheons supported their assertions in

the interviews of the culture and climate of each firm, even though there were gradations within each culture. The follow-up interviews added additional support to participants' statements in the initial interviews while uncovering subtle nuances in some of the major categories of findings.

The researcher did not know or have any preconceived ideas of what would be found in this study, and even though there was some presumption of applicability of P-O fit in the hiring process leading to more satisfied workers with reduced intention to leave a firm based on the literature, there was no presumption of applicability of gender bias in the process. While there was some evidence of gender bias in the hiring process in general and in the selection process specifically, there was enough evidence of gender bias post-hire to continue to ask research questions regarding its presence in other areas of the strategic human resources management process.

Chapter 5

Conclusions, Limitations, Future Study

A final word on fit. Workforce planning is an important, strategic human resource function which allows an organization to be able to prepare strategically for future needs and forecast positions which may not currently exist, but which are foreseeable, predictable, and measurable in terms of the knowledge, abilities, skills, competencies, traits, and behaviors which will be needed to perform the work. The literature demonstrates that the hypercompetitive markets in which many organizations compete necessitates rapid changes which require agile responses in many areas of the organization, not the least of which is workforce planning. The present study explored whether systematic, intentional consideration of personorganization fit within the selection process of workforce planning will lead to gender-neutral hires who provide the added agility and fluidity to respond to a rapidly changing work environment by producing the expected outcomes of satisfied workers who are eager to contribute to the success of and will remain with the organization.

Support for the positive influence of P-O fit considerations combined with gender-based hiring on affective worker outcomes would contribute both to the

literature and to practitioners as they seek to hire high-performing, satisfied workers who remain with a company. Further qualitative research and empirical study would be needed to confirm this and generalize the findings across industries and organizations.

Person-organization fit incorporates more than simply analyzing objective and verifiable work behaviors to include both organizational and position characteristics (Morgeson and Dierdorff, 2011; Sanchez & Levine, 2012). In addition to strategically analyzing the organization itself as a component of forecasting future hiring and work practices, additional research should include behavioral- and trait-based approaches, as well as tools and techniques to measure them, to maximize fit with an organization's culture and values as well as work and role contexts, per the work of Tett & Burnett (2003), with a goal of confirming that consideration of P-O fit leads to the expected outcomes.

Morgeson and Dierdorff (2011) concluded that research on work relationships in various work roles is valid and aligns person attributes to work-role behaviors across domains; however, additional research is needed to link work contexts such as social interactions with role behaviors to support the cultural context of P-O fit. This is pertinent to P-O fit, as outcomes should be generalizable across the workforce planning process, and particularly across the selection process, and should serve to further define P-O fit considerations as a factor in strategic human resources.

An entire body of research, which was not covered in the present study but which should also be explored further, concerns various other dimensions of person-environment fit, including person-position (or person-job) fit (Bowen, Ledford, & Nathan, 1991; Nolan, Langhammer, & Salter, 2016; Shipp & Jansen, 2011), person-supervisor fit (Kristof-Brown, Zimmerman, & Johnson, 2005; Shipp & Jansen, 2011), person-environment fit (Jansen & Kristof-Brown, 2006; Kristof-Brown, Zimmerman, & Johnson, 2005; Shipp & Jansen, 2011), person-situation fit (O'Reilly, Chatman, & Caldwell, 1991; Shipp & Jansen, 2011), and, based on current trends toward group- and team-based organizations, person-group fit (Kristof-Brown, Zimmerman, & Johnson, 2005; Shipp & Jansen, 2011). It is certainly possible that incorporating these considerations into the workforce planning process would also be beneficial to the organization in the long run by contributing to both attitudinal and behavioral outcomes

While the current study concentrated on the attitudinal outcomes of job satisfaction and retention/tenure vis-à-vis turnover intention as a result of considering P-O fit combined with gender-based hiring during the workforce planning and selection process, future research should focus on the attitudinal outcomes of organizational commitment, loyalty, needs fulfillment, work-life balance, and goal attainment, as well as the behavioral outcomes of job performance, turnover, organizational ambidexterity, organizational adaptability,

and organizational effectiveness. The permutations of various aspects of fit with various outcomes provides a rich source of possibilities for future study.

The literature demonstrates strong connections between P-O fit and each of these outcomes, but it does not demonstrate a causal relationship. As with the present study, future research can lay the groundwork to determine causality between P-O fit and various worker outcomes.

A final word on gender-based hiring. Researching gender bias in the hiring process of study firms operating in a STEM field was ultimately a larger challenge than expected. As previously stated, hiring new engineering graduates who are female is difficult for any firm when less than one in five engineering graduates is female, but it was especially challenging for one of the study firms that hires only electrical engineers within a limited geographic area. Even if either firm specifically set out to hire female engineering graduates, the available pool of qualified candidates is small. As such, any future studies incorporating gender-based hiring practices with P-O fit would most likely have an easier task by choosing a non-STEM field to study, or by choosing larger firms in larger demographic markets.

The literature on gender bias indicates a need for training, on an ongoing basis, to raise awareness of possible biases within managers, especially hiring managers. Gender bias may exist not only in the workforce planning process, but

also post hire in how women are treated and whether they are promoted. A study by Jackson, Hillard, and Schneider (2014) suggested that diversity training can help mitigate bias in selection and promotion of women in STEM fields. Given that women are still significantly underrepresented in engineering fields in general, providing opportunities to women in engineering through reduction of biases and promotional opportunities has long-term implications for attracting more women to the field and keeping them once they're practicing their trade.

Emerging theme and future research: Loyalty. The researcher could find very little academic literature on the interaction of hiring for organizational fit and loyalty on either the employer's or employee's part. Findings from the present study, however, appear to support that intentionally and rigorously hiring for fit with the organization results in employees with greater loyalty to a firm. A larger stream of academic literature exists on employee commitment to an organization, and loyalty and commitment are sometimes referred to in tandem. Redman and Snape (2005), for example, studied multiple constituencies of commitment in organizations and concluded that employees differentiate among commitments and loyalties, and these are influenced by the nature of their jobs, the work context, and their managers. The previously mentioned study by Esmaeilpour and Ranjbar (2017) studied the impact of commitment, satisfaction, and loyalty on customer service. They referred to Becker's (1960) definition of loyalty as a process in

which a person has "knowledge of better conditions of employment and higher wages, but he refuses to accept that job in order to maintain his current job" (Esmeailpour & Ranjbar, 2017, p. 85). They also defined commitment based on Bazvand et al. (2014) as an "emotional attachment and prejudice to the values and goals of an organization" (Esmeailpour & Ranjbar, 2017, p. 85) and based on Mowday and Steers (1979), whose definition of organizational commitment consists of three main features:

- Belief in and acceptance of the values and goals of an organization
- A tendency toward contributing considerable effort in the organization
- A strong desire to maintain membership in the organization

(Esmeailpour & Ranjbar, 2017, p. 85)

This appears to be supported by the findings in the present study as exemplified by Brian at the Lakeland firm, which rigorously screens for fit with the organization, who stated he was treated extremely well and had no intention or need to look elsewhere even though he could probably earn a greater salary elsewhere. That is contrasted by the example of Frank at the Melbourne firm, which considers but does not necessarily screen for fit in the hiring process, who would not rule out the possibility of leaving his present job if a better opportunity came along. This raises the question of whether hiring for fit with an organization results in employees who are more loyal to a firm, which may be a complementary outcome to job satisfaction and turnover intention. Future research would be needed to support this assertion.

Emerging theme and future research: Post-selection gender bias. The study findings indicate potential gender bias at both firms post-hire. Barb at the Lakeland firm believes she is paid less than her male counterparts, and even though she personally accepts that, it is a potential indication of bias. In addition, Barb stated that allowances are made for her such as not lifting heavier objects and equipment, and while this is not evidence of gender bias per se, it does indicate that she may be treated differently because of her gender. It could also simply indicate that the personnel at her firm want to treat her fairly by making accommodations based on physical traits, much the same as allowances are made for the designer in the Melbourne firm who has medical issues. It is at that firm that evidence of gender bias is stronger, since Shelly related multiple instances where she believed she was treated differentially based on her gender. In addition, Mary, the only female employee in the electrical department at the Melbourne firm, also related multiple instances where she believed she was treated differentially but couldn't state for certain whether that was due to her gender or to the fact that she has more experience in the field than her male counterparts, resulting in their feeling threatened and treating her accordingly. Because the topics emerged unprompted and were discussed by multiple participants across both study firms, both topics may be worthy of further study.

A 2017 article in *PE* Magazine, a publication of the National Society of Professional Engineers (NSPE), highlighted biases against women and people of color in the engineering workplace (Boykin, 2017). The article pointed to a 2016 study commissioned by the Society of Women Engineers through the Center for WorkLife Law at the University of California, Hasting College of Law, indicating bias against women in engineering, stating that the field continues to be unwelcoming and even hostile toward women, and that women are held to a higher standard and must prove themselves prior to receiving the same level of respect that a majority of men in the field automatically receive (Boykin, 2017). It goes on to state that one of the contributing factors causing women to experience this type of bias is a result of firms hiring unqualified and underqualified women only to meet a diversity quota (Boykin, 2017).

Considering Barb indicated she was satisfied with her job, believed she was being treated fairly, and had no intention of leaving the firm, and considering that she was more rigorously screened for fit with the organization and its culture, this might be an indication that hiring for fit with a firm may lead to less gender bias in post-hire treatment. As such, future research on the interaction of hiring for P-O fit with possible gender bias post-hire could shed some light on the findings in the present study, especially if applied to STEM fields in particular.

Future research topics. Several other topics for future study have arisen as a result of the findings from the present study. The first of these arises as a result of the article referred to above (Boykin, 2017) as applied to the findings in the present study, and that is: do firms hire women so as not to be accused of bias (i.e., to fill quotas) and then treat them differently? Based on the findings in the present study, Shelly was hired partially through the hiring manager's advocacy in addition to having experience in an area the firm needed in the civil department of the Melbourne firm. After being hired, however, she felt she was treated differently than her male counterparts, and this was corroborated by Sharon, another employee in the department. At the Lakeland firm, Barb related multiple examples of differential treatment of women at other engineering firms. Their experiences appear to be corroborated by the Boykin (2017) article in which a survey of 3,000 engineers and engineering technicians found evidence of both gender and racial bias in the engineering field. That study indicated the bias may be due, in part, to firms hiring underqualified or unqualified women and people of color simply to fill diversity quotas, which has possibly crept into bias in treatment of all women and people of color across the industry. Additional study would be needed to confirm these results within engineering specifically and in other STEM fields generally to verify if this is limited to engineering firms or is evident across all STEM firms.

Loyalty on the part of both the employer and the employee is another topic which needs extensive future academic research. A subtopic of this is whether

employees who are hired for fit with the organization and its culture tend to be more loyal than those who are not hired for fit. Most studies in the United States have tended to concentrate on employee commitment to the organization rather than loyalty, and those studies that have researched loyalty have tended to concentrate more on customer and brand loyalty than on employee loyalty toward an employer or vice versa. Most of the loyalty studies the researcher found in the current academic literature have originated in and studied firms and employees in Europe, Asia, and the Middle East. Studies originating in and concentrating on U.S.-based firms and employees could greatly contribute to the literature on loyalty while at the same time expanding on and complementing the literature on employee commitment, which appears to be closely related to loyalty.

Another interesting question arising from the present study which was not touched upon previously and which would also complement the literature on loyalty and commitment is: Are employees who are hired for longevity due to a continuity plan in small firms more loyal and committed than employees hired into firms without a set continuity plan? In other words, it is possible that the heightened level of job satisfaction, commitment, and loyalty at the Lakeland firm was due not only to rigorous screening for fit but also because that firm has a definite continuity plan to sustain the firm beyond retirement of the current partnership. This sustainability plan, as it might be called, is driving the firm's growth, and one of the main goals in hiring engineers there is whether they will

become long-term employees with the drive and ambition to rise through the ranks and eventually become partners there. Screening for that during the hiring process not only ensures fit with the organization but also provides insight into the employee's level of commitment and loyalty to the firm. Franco, the hiring manager at the Lakeland firm, stated that engineers who stay longer than five years there tend to remain with the firm for the long term and possibly for the duration of their careers. Thus, there may be an interplay of both fit with the organization and with promotion potential that produces better results in terms of job satisfaction, loyalty, and commitment. This would be worthy of future study, and a number of permutations would be possible, including various combinations of hiring for fit, tenure with a firm, job satisfaction, loyalty, and commitment.

Limitations. The limitations in the present study may have directly contributed to the lack of support for one of the research subquestions. One of those limitations was, of course, the sample population. The researcher was able to find two specific organizations with similar demographics, industry, and geographical locations, but in doing so, the diversity of study participants was limited. It is difficult to find gender bias in hiring of female engineers when each firm had only one female engineer, resulting in a lower ratio of women than the overall population of firms generally. That was compounded by the fact that one of the firms only hires a specific engineering field (i.e., electrical engineers) and hires from an even

narrower geographic area than the other firm. The resultant restriction in range may have influenced the outcomes.

Similarly, as a qualitative study focusing on the lived experiences of people within the study firms, it was necessarily limited to a small number of people in a small number of firms. The study was a comparative case analysis of two firms, and even though more than half of the employees were interviewed at each firm, it is not possible to extrapolate their experiences across an entire field of firms. While the 21 individuals provided a wealth of information and data, and their experiences may be typical of those in small engineering firms, it is certainly possible that these were two unique firms whose cultures, while similar to each other, were anomalistic of those in engineering firms as a whole. Additional research would be needed to confirm how typical these firms were.

In addition, the study focused on engineering firms only, so it has limited generalizability to other STEM firms specifically and to all industries, organizations, and geographic areas generally. The researcher anticipates that future studies on this topic would add to the generalizability of results.

Conclusion. The study sought to answer questions regarding the interaction of and interplay among various constructs in the workforce planning and hiring process. Specifically, it studied whether gender bias was evident in the hiring process at small engineering firms in the central Florida geographical area, and

whether consideration of fit with an organization and its culture during hiring and selection affects gender hires at those firms. As an indication of gender bias, affective behavioral outcomes of job satisfaction and turnover intention were studied, and there was a subtle finding of gender bias in the hiring process of the firm that does not specifically screens for person-organization fit. There were also other findings that demonstrate intriguing possibilities for future study. A finding of no gender bias, however, is not an absolute conclusion that gender bias does not play a part in the hiring process of firms whose employees are specifically selected for fit with the organization's culture and climate.

Thus, in addition to findings of support for the research questions, the study also found emerging themes in the areas of loyalty and post-hire gender bias that could open an entire stream of research which, depending on the findings, could aid the overall strategic human resources process as well as the workforce planning process in general and the hiring and selection process specifically.

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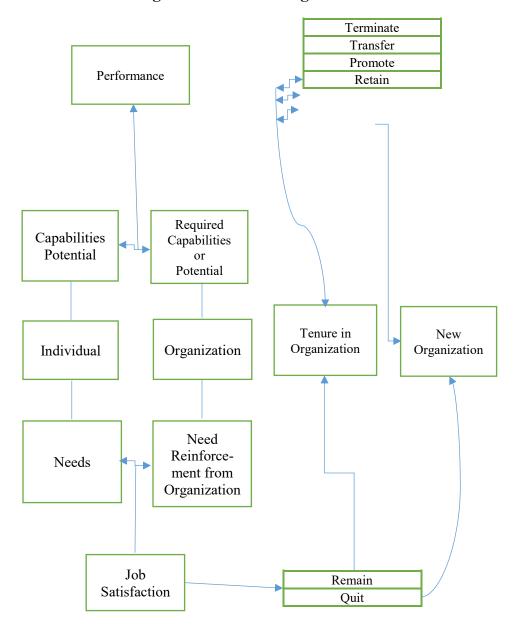
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APPENDIX A

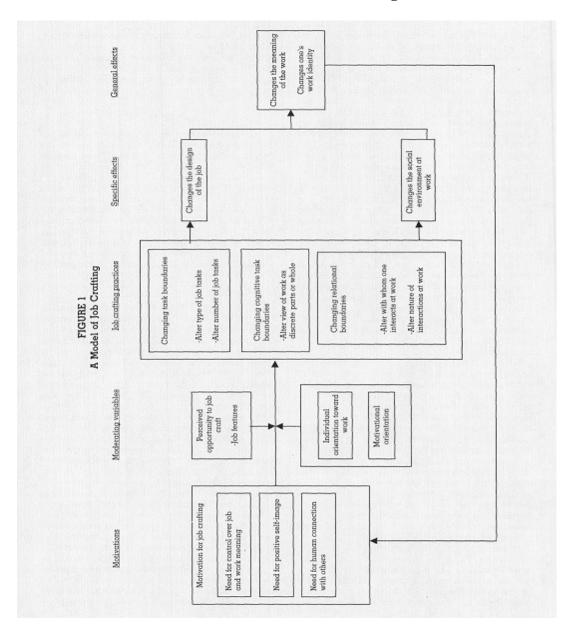
Wanous: Matching Individual and Organization Model⁴



⁴ Adapted from "Realistic job previews: Can a procedure to reduce turnover also influence the relationship between abilities and performance?" by J.P. Wanous, 1978, *Personnel Psychology*, 31(2), p. 250.

APPENDIX B

Wrzesniewski & Dutton Job Crafting Model



Note. Adapted from "Crafting a job: Revisioning employees as active crafters of their work," by A. Wrzesniewski, & J.E. Dutton, 2001, Academy of Management. The Academy of Management Review, 26(2), p 182.

APPENDIX C

Recruiting Flyer

Research Participants Needed





Florida Institute of Technology Doctoral Student is Seeking Participants from Your Organization to Interview

Participants will:

- Meet for about an hour to discuss a specific topic in human resources
- Contribute to research into workforce planning and selection. No experience with the concepts is needed.
- Be entered into a drawing for a \$25 gift card.
- Be asked to volunteer for a follow-up interview in return for a \$20 gift card.

For more information, please call or email:

Vicky Knerly, Principal Investigator

(321) 674-8484 vknerly@fit.edu

APPENDIX D

Research Participant Informed Consent Form

Exploring Person-Organization Fit and Gender Bias in the Hiring Process of Engineering Firms: Is Selection Impacted?

Dissertation Committee Chair: Dr. Theodore Richardson

Telephone Number: (321) 674-8123

Principal Investigator: Vicky W. Knerly Telephone Number: (321) 674-8484

1) **Introduction**

You are invited to participate in a research study under the direction of Dr. Theodore Richardson of the College of Business at Florida Institute of Technology (Florida Tech), dissertation committee chair, and Vicky W. Knerly, student researcher and principal investigator. Taking part in this research is entirely voluntary. You may choose not to take part, or you may choose to withdraw from the study at any time.

2) Why is this study being done?

You are being asked to take part in this study because you are an employee of (Company Name). Your personal experiences with your
hiring process, your perceptions of your organization and how you fit into it, and your ideas will greatly enhance this research project.
The purpose of this study is to explore whether considering Person-Organization (P-O) fit when hiring employees results in any benefits for the company regarding motivated and productive workers who plan to stay with the organization.
If you are participating in a live interview, it will take place at (address) at (time)
on(date). If you are participating in a virtual interview, it will take place via (Zoom)(Skype)(Facebook Messenger)(Other) at
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(time) on	(date), and you will be provided
with a link ahead of time to join the session at the	he designated meeting time. If you
are participating via phone, I will call you at	(phone number) at
(time) on	(date).

Analysis of all data collected will be conducted at the following location: <u>Florida</u> Institute of Technology, Melbourne, FL.

3) What is involved in this study?

If you choose to take part in this study, this is what will happen:

- I will contact you to set up an interview date, time, and method (live, via phone, or via several electronic methods).
- I will send you a confirmation e-mail to confirm the agreed-upon date and time.
- You will participate in the approximately hour-long interview on the designated date and time. You will be asked a series of questions regarding your experience with your hiring process, your perceptions of that process, your experience within the company, and how you feel about the organization.
- The interview will be recorded, and I will take handwritten notes during the session.
- You will be given the opportunity to volunteer to review the transcript of your session and participate in a follow-up personal interview to discuss the findings and explore your input and ideas more deeply.
- Final analysis will be conducted, and the results and findings will be formally written into my dissertation.
- Upon request, I will send you a copy of the results of the findings after the analysis has been conducted and the conclusions have been written into the dissertation.
- The total amount of time you will spend in connection with this study is approximately one hour for the initial interview, one hour to review your portion of the transcript, and 30 minutes to one hour for the personal follow-up interview, for a total of up to three hours.

4) What are the risks of participating in this study?

There are no physical risks associated with this study. There is, however, a risk of loss of confidentiality. I will make every effort to keep your information strictly

confidential; however, this cannot be guaranteed. Also, you may find that some of the questions asked as part of this study may raise sensitive issues for you, resulting in mild emotional discomfort. You may refuse to answer any of the questions asked, and you may take a break at any time during the study, both during the initial and follow-up interviews, if you choose to participate. In addition, you may withdraw from this study at any time without negative consequences.

5) Are there any benefits to taking part in this study?

Taking part in this research will not assist you directly; however, you may benefit from:

- The opportunity to reflect on your experiences within your organization
- The opportunity to provide guidance for human resources departments in the future.
- The possibility of winning a gift card for your participation in the initial interview
- Receiving a \$20 gift card for participating in the transcript review and followup interview

The benefit to science and humankind may include:

• The opportunity to gain insight into whether person-organization fit results in hiring workers who are more satisfied and less likely to leave their organization

6) What are my options?

Participation in this study is voluntary. You do not have to participate in this study if you do not want to. Should you decide to participate and later change your mind, you may withdraw at any time.

7) Will I receive payment being in this study?

You will be entered into a drawing for a \$25 gift card for participating in the initial interview. Odds of winning depend on the number of participants interviewed from your organization. If you choose to volunteer to participate in the transcript review and follow-up interview, you will receive a \$20 gift card.

8) Can I be taken off this study?

The investigator may decide to withdraw you from the study at any time. You could be removed from the study for reasons related solely to you (e.g., not following study-related directions from the investigator) or because the entire study is stopped.

9) How will my privacy be protected?

If the results of this research study are published in journals or at higher education meetings, none of the participants will be named or identified. You may be quoted using a pseudonym of your choosing in published materials, without reference to any possible identifying information such as your company name or location. Florida Tech will not release any information about your research involvement without your written permission, unless required by law.

10) Problems or Questions

The Institutional Review Board of Florida Institute of Technology, at telephone number (321) 674-8960, can provide further information about your rights as a research participant. Further information regarding this study may be obtained by contacting Dr. Theodore Richardson, dissertation committee chairperson, at (321) 674-8123 or Vicky W. Knerly, principal investigator and student researcher, at (321) 674-8484.

Please keep a copy of this document for your files				
If you agree to participate in this study, please sign below:				
Participant's Name (printed) and Signature	Date			
Person Obtaining Consent's Name (printed) & Signature	Date			
Principal Investigator's Name (printed) & Signature	Date			

APPENDIX E

Research Participant Demographic Form

I. Per	rsonal Infor	mation: (Please	e provide all red	quested inf	ormation)
Title: (Ple	ase circle on	e)			
Dr.	Mr.	Mrs.	Ms.	I	Miss
Full Name	e:				
Preferred	Mailing Ad	dress:			
Preferred	Telephone ?	Number:			
Preferred	Email Add	ress:			
Gender Id	lentification	: (Please circle	one)		
Male	Female	Prefer not to	answer		
Marital St	tatus: (Pleas	e circle one)			
Married	Single	Divorced	Widowed	Other	
Highest L	evel of Educ	cation Attained	: (Please circle	one)	
High Sch	ool Assoc	riate's Bach	elor's Mas	ter's	Doctorate
Other (spe	cify):				

II. Employment Information: (please provide all requested information)
Present Employer:
Present Title:
Number of years you have held this title: years
Number of years you have worked for your current employer:
years
III. Pseudonym
In the space below, please indicate the name you wish to use for confidentiality purposes. Consider a nickname or a name you would have preferred other than your given name. Keep in mind that, if you want to maintain your privacy, do not choose a name that could identify you. If a name is not provided, I will assign a pseudonym for you.
Pseudonym:

APPENDIX F

Interview Protocol – Employee

- 1. Tell me about your experience with the hiring process here.
 - a. Who interviewed you?
 - b. Were you interviewed more than once?
 - c. What kinds of questions were you asked?
 - d. Did you take any assessments or tests? If so, what?
 - e. What most attracted you to this company and this job?
 - f. What do you think set you apart from other job candidates?
 - g. Who offered you a position?
 - h. Is it the position you have now?
 - i. How did you feel about the hiring process overall? Was there anything that could have been done better?
- 2. Tell me about your experience with the company.
 - a. How long have you been employed here?
 - b. Do you like the work? If so, what do you like about it? If not, what don't you like about it?
 - c. What kinds of projects do you enjoy working on?
 - d. What's your favorite part of your job?
 - e. Did you receive any kind of training? Describe.
 - f. Have you done any professional development since you've been here (seminars, certifications, manager/leader)? Do you want to?
 - g. Do you like your coworkers? Your supervisor/manager? Do you have a lot in common with them? Explain.
 - h. Do you think you're treated fairly? Why or why not?
 - i. Do you feel as if they're taking care of you and value you as an employee (benefits, work/life balance)?
 - i. Has anyone ever asked you about what you like to do outside work?
 - k. Do you do anything socially with any of your coworkers? What kinds of things do you do (if any)?
 - 1. Do you share a lot in common with other employees here? Do you have similar personalities? Why or why not?

- m. Do you share a lot in common with the company overall? Do you think the company has a personality? Describe it.
- n. What else can you tell me?

Tell me how you would rate yourself regarding the work you do.

- o. Don't go by what was on your last performance appraisal, but tell me how you would rate yourself as a worker.
- p. Do you think you do good work? Why?
- q. Explain whether and how you are you able to tailor your job? Can you choose your projects and how you complete them?
- r. Tell me how you organize your work. Do you like to come up with new solutions to a problem or project? What steps do you take to make sure your work is high quality?
- s. How would you compare yourself to others who do similar work here?
- t. What's the most challenging part of your job?
- u. What else can you tell me about your job and the work you do?
- 3. As of right now, do you think you'll be staying with the company?
 - a. Do you have opportunities for advancement here?
 - b. How long do you think you'll stay? If until retirement, how long would that be?
 - c. Explain why you've been here as long as you have. For example:
 - i. Still learning
 - ii. Advancement opportunities
 - iii. Like the company, environment, people
 - iv. Like the salary
 - v. Nothing available elsewhere
 - vi. Other
 - d. Are you looking for opportunities elsewhere? If so, why? What kinds of positions are you looking for?
 - e. Is there anything else you want to add about staying with this company versus leaving?

APPENDIX G

Interview Protocol – Hiring Manager

- 1. Tell me about your hiring process here.
 - a. How do you determine hiring needs?
 - b. How do you determine potential candidates?
 - c. Are your interviews structured, semi-structured, or unstructured?
 - d. Do you conduct more than one interview per candidate?
 - e. What kinds of questions do you ask?
 - f. Are applicants given any assessments or tests? If so, what?
 - g. Do you attempt to determine whether an applicant will fit well with the organization? If so, how?
 - h. Do you specifically try to hire a diverse workforce?
 - i. Tell me about the mix of employees you have (male/female, black/white/Asian). Interns? International?
 - j. How many of the current employees did you directly hire?
 - k. How do you decide who to hire? What factors do you take into consideration? What questions do you ask to determine those factors?
 - i. Strictly job qualifications?
 - ii. How the person will fit with the company?
 - iii. How they look?
 - iv. Where they were educated?
 - 1. If you could improve your hiring process overall, what would you do?
 - m. What else can you tell me about the hiring process?
- 2. Tell me about your experience with the company and how you think your employees are doing overall.
 - a. How long have you been employed here?
 - b. Who has been here longest?
 - c. How long would you say the average employee stays with the organization?
 - d. Do you provide any kind of training to new hires? Describe.
 - e. Have you provided any professional development for employees once they're trained? Do they want that?
 - f. Let's talk about what you provide your employees:
 - g. Do you provide flexible working hours? Benefits? Work/life balance?

- h. Are employees given autonomy to design their positions and/or their work? If so, how? Can they choose which projects to work on or bring in projects/clients?
- i. How do you reward employees? Do you have specific discipline policies? If so, how are employees disciplined?
- j. Are performance reviews conducted regularly? How often? Who conducts them?
- k. Would you be willing to provide copies of the company's most recent performance appraisals for all employees or a summary of them?
- 1. Do you provide opportunities for social interaction with and among employees? Formal or informal? What kinds of things do you do, if any (retreat, holiday party, picnics, etc.)?
- m. How would you describe the climate of the company currently?
- n. What else can you tell me?
- 3. Let's talk a little bit more about employee development, retention, and tenure.
 - a. Do you provide opportunities for advancement here?
 - b. How many employees remain with the company until retirement?
 - c. Are you aware of any employees who are currently looking for other employment? If so, why do you think they're looking (unhappy with position, unhappy with management, no opportunity for advancement, etc.)?
 - d. Of employees who have voluntarily left the firm other than retirement, do you know where they went?
 - e. Do you conduct exit interviews? If so, what types of questions do you ask during an exit interview (whether employee was dissatisfied with the work, the benefits, the pay, their supervisor, etc.; suggestions for ways to improve the company or its policies, procedures, processes)
 - f. Would you be willing to share turnover data (a list of employees hired over the last 10 years, including those who have left the company for any reason, or an aggregate summary)?

APPENDIX H

Authorization for Access – Fortune-7, Inc.

From: Paul D. Gates [mailto:PGates@fortune-7.com]

Sent: Thursday, September 14, 2017 11:45 AM

To: Vicky Knerly < vknerly@fit.edu>

Subject: RE: Vicky Knerly Dissertation Study on Person-Organization Fit

Vicky,

Sorry took so long.

Per our conversation, let this e-mail serve as agreement for access to our employees in support of your dissertation study.

This access would include, and not necessarily be limited to, conducting interviews with myself and employees at a future date.

We look forward to scheduling an appropriate time in late October / early November.

Thank you,

Paul Gates CEO – Fortune 7, Inc., TEAMWORKnet & MCIS c. 813-716-5525 w. 863-327-1090

APPENDIX I

Authorization for Access – Construction Engineering Group

From: Michelle Edwards < medwards@cegengineering.com >

Sent: Friday, March 16, 2018 11:09 AM **To:** Vicky Knerly <vknerly@fit.edu>

Cc: Sabrina Ammon <sammon@cegengineering.com>

Subject: Inquiry and invitation for CEG to participate in doctoral research study

Hi Vicky,

Let this email serve as agreement for access to our employees in support of your dissertation study.

The access would include, and not necessarily be limited to, conducting interviews with myself and employees at a future date.

We look forward to scheduling an appropriate time when you are ready.

Thank you,

Michelle F. Edwards

Controller/Office Manager



Construction Engineering Group, LLC

2651 W. Eau Gallie Blvd, Suite A Melbourne, Florida 32935 Direct: (321) 610-1752 www.cegengineering.com

APPENDIX J

$Research\ Participant\ Log-Melbourne\ Firm$

	Employee Participants						
		1 st	Follow-up				
		Interview	Interview	Transcript	Gift	Functional	
	Pseudonym	Date/Time/	Date	Sent	Card	Title	
		Length			Awarded		
		5/22/2018					
1	John Smith	9:30 AM		No			
		25:25	None	(offered)	No	Designer	
		5/22/2018					
2	Jane Doe	10:00 AM		No	Yes (for		
		33:28	None	(offered)	initial)	Admin	
		5/22/2018	8/21/2018:				
3	Mary	11:30 AM	8:30 AM;		Yes (for		
		36:37	31:44	Yes	F/U)	Designer	
		5/22/2018	8/21/2018:				
4	Sharon	1:30 PM	8:00 AM;		Yes (for		
		35:11	12:49	Yes	F/U)	Admin	
		5/22/2018					
5	Mike	2:30 PM		No			
		25:19	None	(offered)	Yes	Engineer	
		5/22/2018					
6	Barry	3:30 PM		No			
		64:11	None	(offered)	No	Designer	
		5/22/2018					
7	Frank	4:30 PM		No			
		40:03	None	(offered)	No	Designer	
		6/01/2018					
8	George	10:00 AM		No			
		32:19	None	(offered)	No	Partner	
		8/21/2018					
9	Shelly	9:00 AM		No			
		66:23	None	(offered)	No	Engineer	

Research Participant Log – Melbourne Firm (Continued)

	Hiring Manager						
		1st	Follow-				
		Interview	up		Gift		
		Date/Time/	Interview	Transcript	Card	Functional	
	Pseudonym	Length	Date	Sent	Awarded	Title	
		5/22/2018				Controller/Ofc	
	Becky Boo	10:30 AM				Mgr./Hiring	
1	Two	45:35	None	No	No	Mgr.	

APPENDIX K

$Research\ Participant\ Log-Lakel and\ Firm$

	Employee Participants					
		1 st	Follow-up			Func-
		Interview	Interview	Transcript	Gift Card	tional
	Pseudonym	Date/Time/	Date	Sent	Awarded	Title
		Length				
		6/13/2018:				
1	James P.	9:00 AM		No		
	Borden	44:21	None	(offered)	No	Designer
		6/13/2018:	8/23/18		Yes (for	
2		10:00 AM	0830;		initial)	Project
	Brian	53:01	14:23	Yes	Yes	Manager
					(for F/U)	
		6/13/2018:				
3		11:00 AM		No		
	Brad	34:34	None	(offered)	No	Engineer
		6/13/2018:				Wireless
4		12:30 PM		No		Opns
	Jackson	51:35	None	(offered)	No	Manager
		6/13/2018:				
5	Slim	1:30 PM		No	Yes (for	Wireless
	Shady	30:44	None	(offered)	initial)	Techn.
		6/13/2018:				
6		2:00 PM		No		
	Stella	48:41	None	(offered)	No	Admin
		6/13/2018:				
7	Stevie	3:00 PM		No		
	Nicks	46:30	None	(offered)	No	Admin
		6/14/2018:	8/23/18:			
8		8:30 AM	0900;		Yes (for	
	Barb	32:22	21:08	Yes	F/U)	Engineer
		6/14/2018:				
9		9:00 AM		No		Wireless
	Hank	18:43	None	(offered)	No	Techn

Research Participant Log – Lakeland Firm (Continued)

10	Samantha	6/14/2018: 9:30 AM 21:31	None	No (offered)	No	Admin
	Samanina	21.31	Hiring Man	/	110	Admin
		1st	Follow-up			
		Interview	Interview	Transcript	Gift Card	Functional
	Pseudonym	Date/Time/	Date	Sent	Awarded	Title
		Length				
		6/13/2018:				Partner/
1		7:30 AM				Engr/
	Franco	85:57	None	No	No	Hiring Mgr

APPENDIX L

Major Themes Discovered as Part of Research-Based Findings (Merged Data from Both Study Firms)

Theme	Frequency (Number of Times Discussed)	Discussed by Which Participants
Communication	12	Barb
		Barry
		Brad
		Brian
		Franco
		James
		Mary
		Samantha
		Sharon
		Shelly
		Stella
Culture (includes fit	31	Barb
with organization and		Barry
socialization)		Becky
		Brad
		Brian
		Franco
		Frank
		George
		Hank
		Jackson
		James
		Jane
		Mary
		Mike
		Samantha
		Sharon
		Shelly
		Slim
		Stella
		Stevie

Major Themes Discovered as Part of Research-Based Findings (Continued)

Theme	Frequency (Number of Times Discussed)	Discussed by Which Participants
Hiring Process (includes fit with organization, hiring based on referrals and testing/assessments)	46	Barb Barry Becky Brad Brian Franco Frank George Hank Jackson James Jane John Mary Mike Samantha Sharon
		Shelly Slim Stella Stevie
Job Satisfaction	6	Barb Becky Brad Brian Mary Sharon

Major Themes Discovered as Part of Research-Based Findings (Continued)

Theme	Frequency	Discussed by Which
THEME	(Number of Times	Participants
	Discussed)	1 articipants
Training/Professional	30	Barb
Development	30	Barry
Bevelopment		Becky
		Brian
		Franco
		Frank
		Hank
		Jackson
		James
		Jane
		John
		Mary
		Mike
		Samantha
		Sharon
		Shelly
		Slim
		Stella
		Stevie
Turnover Intent	9	Barb
Turnover intent	9	Becky
		Brian
		Franco
		John
		Mary
		Sharon
Work/Life Balance	10	Shelly Barb
WOIK/LITE Datatice	10	
		Becky
		Brad Brian
		Franco
		Franco Frank
		Jane
		John
		Mary
		Sharon

APPENDIX M

Emerging Themes - Not Included in Research Questions (Merged Data from Both Study Firms)

Theme	Frequency (Number of Times Discussed)	Discussed by Which Participants
Loyalty	9	Barry Brad Brian Frank Jackson Sharon Stella Stevie
Gender Bias (post-hire)	6	Barb Mary Sharon Shelly