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META-ENGAGEMENT: AN EXAMINATION OF EMPLOYEE ENGAGEMENT  
ANTECEDANT VARIABLE INTERACTIONS AND THE IMPACT ON  
ENGAGEMENT OUTCOMES

By

Joshua Branden Jordan  
B.A., Purdue University, 2002  
M.S.M., Troy University, 2004

A Dissertation  
Submitted to the faculty of the  
College of Education and Human Development of the University of Louisville  
in Partial Fulfillment of the Requirements  
for the Degree of

Doctor of Philosophy  
In Educational Leadership and Organizational Development

Department of Educational Leadership, Evaluation, and Organizational Development  
University of Louisville  
Louisville, Kentucky

December 2019

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A Dissertation Approved on

September 26, 2019

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Dr. Kevin Rose

## DEDICATION

To Megan Walendzik, the strongest person I know.

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I would like to thank my fiancé Kelly, who has been a fierce supporter of mine with this study. Her support, knowledge, wisdom and love are immeasurable and appreciated. Her daughter Megan has been a source of inspiration. Together they inspire me to do more and to be the best I can before God. To my sons Alex and Brayden, who kept me full of cheer during this journey, I send love and appreciation. To friends, family, work colleagues and fellow social scientists who have aided me in this journey, I give thanks.

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## ABSTRACT

### META-ENGAGEMENT: AN EXAMINATION OF EMPLOYEE ENGAGEMENT ANTECEDANT VARIABLE INTERACTIONS AND THE IMPACT ON ENGAGEMENT OUTCOMES

Joshua B. Jordan

September 26, 2019

This dissertation is a meta-analysis of employee engagement, employee engagement antecedent variable relationships, and the impact on engagement outcomes. Specifically, this analysis excluded the use of the Utrecht Work Engagement Scale (UWES) as a measure for employee engagement. Using the model proposed by Shuck and Wollard (2011) to understand relationship magnitude, this study examined the relationship of employee engagement antecedents (work-family conflict and supportive organizational culture), antecedents in relation to employee engagement and intent to turnover, and the relationship between employee engagement and intent to turnover. The results suggest a significant effect size for the pairing work family conflict/intent to turnover ( $r = .316$ ,  $N = 39104$ ,  $k = 57$ ) and employee engagement/intent to turnover ( $r = -.325$ ,  $N = 35962$ ,  $k = 12$ ). No studies were found that included other pairings. These findings suggest that despite previous research detailing the inadequacy of the UWES as a measure for employee engagement, the empirical exploration of antecedent variables and outcomes with employee engagement measures other than the UWES is still lacking. Implications to research, theory, and practice are discussed.



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## CHAPTER 1

### INTRODUCTION

This chapter begins with a background of the current study and is followed by both the problem as well as the purpose statements. Research questions are then presented, which are followed by an introduction of the theoretical background of the variables. Definition of terms, significance of this study, and limitations close this chapter.

#### **Background to the Problem**

Recent estimates place the cost of low levels of employee engagement at close to \$400 billion per year (Byrne, 2015). Employee engagement is defined as “an individual employee’s cognitive, emotional, and behavioral state directed toward desired organizational outcomes” (Shuck & Wollard, 2010, p. 103). Research has reliably shown that organizations with higher levels of employee engagement outperform their counterparts by 22%, and earn 28% more in earnings-per-share than organizations with low levels of employee engagement (Harter, Agrawal, Plowman & Asplund, 2010). Research has further indicated that organizational practices influence employee engagement to a great extent (Ghosh, Rai, & Sinha, 2014; Ludwig & Frazier, 2012). For example, organizations that placed an emphasis on safety management processes experienced 48% less safety incidents, saved \$1.7 million in related costs, and had increased levels of employee engagement (Harter, Schmidt, Agrawal & Plowman, 2012;

Lockwood, 2007; Wachter & Yarlo, 2014). Building high levels of employee engagement increases individual motivation, deepens the meaningfulness of work to individuals, and reduces undesirable organization outcomes (Fairlie, 2011; Kumar & Pansari, 2014).

One of the more connected outcomes to employee engagement is an employee's intention to turnover (Shuck, Reio, & Rocco, 2011; Shuck, Twyford, Reio, & Shuck, 2014). Intention to turnover occurs when an individual has "a conscious and deliberate desire to leave the organization within the near future" (Carmeli & Weisberg, 2006, p. 193). Research has suggested that engagement significantly influences individual turnover intentions (Andrew & Sofian, 2014). Estimated costs of retraining and replacing an employee lost to turnover often exceed the cost of the original employee, and it also negatively impacts organizational performance outcomes (Hancock, Allen, Bosco, McDaniel, & Pierce, 2011; MacLeod & Clarke, 2009). However, when employees maintain positive perceptions of organizational practices, engagement and performance both increase while turnover decreases (Shuck et al., 2014). According to the research, organizations stand to gain appreciably from an engaged workforce.

One factor shown to influence both employee engagement as well as turnover is an individual's ability to manage the struggle between the responsibilities of work and the responsibilities an individual has to their family (MacLeod & Clarke, 2009; Shankar & Bhatnagar, 2010). Scholars have identified this struggle as work–family conflict.

Work–family conflict is defined as:

[A] form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation

in the work (family) role is made more difficult by virtue of participation in the family (work) role. (Greenhaus & Beutell, 1985, p. 77)

Further research into work–family conflict has separated the nature of conflict into work interfering with family (WIF) and family interfering with work (FIW) (Frome, Russell & Cooper, 1992a). Research has suggested that employees who are able to successfully manage work–family conflict report higher levels of engagement than those of their peers struggling to manage the relations between work and home (Halbesleben, Harvey, & Bolino, 2009). Organizations that support employees in managing this conflict—and those workers who perceive higher levels of organizational support in terms of managing this conflict—report higher levels of overall engagement (Matthews, Mills, Trout & English, 2014; Prottas, 2013).

One resource for mitigating work–family conflict while increasing employee engagement and decreasing an employee’s intention to turnover is a supportive organizational culture (Bedarkar & Pandita, 2014). A supportive organizational culture “represents and protects its core values by trying to use the flexibility of operational procedures to meet the employees’ needs, maintaining human relations and showing concern for people” (Sok, Bloome, & Tromp, 2014, p. 460). Research into corporate culture has suggested a positive link between a supportive organizational culture and organizational outcomes such as financial performance, as well as performance-related attitudinal outcomes such as job satisfaction and intent to turnover (Allen & Shanock, 2013; Han, 2012). Moreover, employees who work for an organization that creates a supportive organizational culture experience decreased levels of work–family conflict

than employees where support is not an organizational priority (Byron, 2005; Sok et al., 2014). In short, several streams of research have suggested that the presence of a supportive organizational culture positively influences employee engagement while reducing work–family conflict and individual intention to turnover (Timms et al., 2015)—however, this evidence is disparate and connected by little.

### **Problem Statement**

Recent research on employee engagement has attracted scholars from various fields to produce a voluminous record (Saks & Gruman, 2014). This has resulted in numerous studies providing empirical evidence on the benefits of employee engagement (Anitha, 2014; Ghosh, Rai, & Signa, 2014; Wachter & Yurio, 2014). However, the quantity of employee engagement research has also provided many frameworks, perspectives, and measures of employee engagement (Byrne, 2015). Despite a growing record of scholarship, there is an increasing lack of consensus across the field about what actually defines employee engagement (Saks & Gruman, 2014). Thus, researchers have, at times, proceeded without an agreed upon framework (Halbesleben, 2011; Saks & Gruman, 2014). In fact, scholars have developed so many differing frameworks about engagement (e.g., see Andrew & Sofian, 2014; Bakker, 2011; Fearon, McLaughlin, & Morris, 2013; Halbesleben, 2011) that academics have recently suggested an “almost total lack of context in most studies of employee engagement” (Purcell, 2014, p. 242). Therefore, due to the lack of context surrounding most employee engagement research, organizations struggle to understand and capture the reported competitive advantage of engagement, which includes meeting an individual’s most basic needs—such as the

struggle between an employee's work and family—whilst at work (Wollard & Shuck, 2011).

Connected, Wollard and Shuck (2011) suggest that, although current research around organizational and individual antecedents of engagement showed little theoretical overlap or connection, a “connection seem[ed] quite plausible” (p.433). Such plausibility opens the space for new research to explore a potential relation between employee engagement, individual and organizational antecedents (such as work–family conflict and supportive organizational culture), and employee intent to turnover. Exploring and understanding the connection between antecedents, employee engagement, and organizational outcomes more fully could not only enable organizations to create an environment where employee engagement flourishes, but it could also add clarity to the still emerging employee engagement construct. Moreover, no meta-analysis into the interaction between employee engagement antecedents (e.g., work–family conflict and supportive organizational culture), employee engagement, and turnover intentions has been undertaken using the term “employee engagement”, specifically. While researchers have used meta-analytic procedures in previous research (c.f., Christian, Garza, Slaughter, 2011; and Cole, Walter, Bedeian, & O’Boyle, 2012), most have conflated the terms work engagement, organizational engagement, job engagement, and employee engagement, despite calls for conceptual clarity among terms. Moving forward without conceptual clarity adds to the potential conflation of employee engagement across frameworks, definitions, and measurement tools, as well as confounds the construct in practice. This knowledge gap in understanding the interaction of employee engagement antecedents—such as work–family conflict and supportive organizational culture, the

mediating role of employee engagement, and the influence on turnover intentions—leaves both scholars as well as practitioners grasping for the demonstrated value and meaning of employee engagement in both research and practice.

### **Purpose Statement**

The purpose of this analysis is to investigate the relation between work–family conflict, supportive organizational culture, employee engagement, and intent to turnover. Specifically, by employing the Wollard and Shuck (2011) employee engagement “conceptual model of relationships” (p. 432), this inquiry shall—using a meta-analytic review of the research—explore the potential relation of individual and organizational antecedents pertaining to employee engagement, the effect of those antecedents on employee engagement, and the relation regarding intent to turnover. Additionally, this research will investigate whether or not employee engagement mediates the relationship between employee engagement antecedents and organizational outcomes.

### **Research Questions**

Q<sub>1</sub>: To what extent does work–family conflict and a supportive organizational culture affect each other?

Q<sub>2a</sub>: To what extent does work–family conflict have an effect on an individual’s level of employee engagement?

Q<sub>2b</sub>: To what extent does work–family conflict have an effect on an individual’s turnover intentions?

Q<sub>3a</sub>: To what extent does a supportive organizational culture have an effect on an individual’s level of employee engagement?

Q<sub>3b</sub>: To what extent does a supportive organizational culture have an effect on an individual's turnover intentions?

Q<sub>4</sub>: To what extent does employee engagement have an effect on an individual's turnover intentions?

Q<sub>5</sub>: To what extent does employee engagement mediate the effects of work–family conflict and a supportive organizational culture on individual turnover intentions?

### **Conceptual Framework**

The following section presents the theoretical frameworks used to understand the variables that are work–family conflict, supportive organizational culture, employee engagement, and intention to turnover.

**Work-family conflict.** Byron's (2005) meta-analysis suggested that the empirical results of work-family conflict measures reinforce the Greenhaus and Beutell (1985) theoretical conceptualization. Greenhaus and Beutell (1985) define work–family conflict (WFC) as:

[A] form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role. (p. 77).

It is a well-established construct within the literature (Byron, 2005) that precedes engagement and has been shown to have a direct impact on individuals' attitudes as well as turnover intentions (Shankar & Bhatnagar, 2010; Spell et al., 2014). Work–family conflict was first explored by Greenhaus & Beutell (1985), and was further broken down

into components of work interfering with family (WIF) and family interfering with work (FIW) (Byron, 2005; Frome et al., 1992a). Frome et al. (1992a) explored a model in which antecedent variables could affect and predict both the nature as well as the directionality of the work–family conflict.

**Supportive organizational culture.** A supportive organizational culture is one in which management provides a psychologically safe environment wherein employees can fail at tasks without fear of negative repercussions (Kahn, 1990). When an organization is not supportive of the employee—or inconsistencies exist in the treatment of the employee(s)—the amount of employee engagement decreases (Kahn, 1990), resulting in a decreased performance that is negatively related to organizational outcomes (Brown & Leigh, 1996). In contrast, Positive Organization Support is the degree of perception that an individual believes their organization both supports and shows a concern for them as a person (Eisenburger, Huntington, Hutchinson, & Sowa, 1986; Matthew, Mills, Trout & English, 2014). Work–family conflict research indicates a negative interaction between low levels of perceived organizational support and high levels of work–family conflict; organizations that strive to increase an individual’s perception of a supportive organizational culture facilitate an overall decrease of work–family conflict amongst employees (Mesmer-Magnus & Viswesvaren, 2006). Positive perceptions of an organization’s culture can lead to increased employee engagement and lower turnover (Shuck, et al., 2014).

**Employee engagement.** Employee engagement is an organizational behavior construct that gets theoretical and philosophical grounding from social science communities such as psychology (Kahn, 1990), management (Harter, Schmidt, and



Hayes, 2002; Macey & Schneider, 2008; Saks, 2006), and training/development (Czarnowsky, 2008; Ketter, 2008). This construct has generated much interest and implementation from the practitioner community who initially set the research agenda (Shuck & Wollard, 2010). Consultants and practitioners alike saw engagement as a measure that employers could use as a yardstick for the bottom line (Harter et al., 2002) and, also, as a means for assessing leadership and talent (Li & Liao, 2014; Tuckey, Bakker & Dollard, 2012) in order to prevent costly employee turnover (Shuck et al., 2014; Spell, Eby, & Vandenberg, 2014). However, employee engagement lacks cohesion within the scholarly community, so further research is needed to provide clarity to its nomological, theoretical, and conceptual roots (Christian, et al., 2011; Purcell, 2014; Saks & Gruman, 2014). This examination of employee engagement will employ Shuck and Wollard's (2010) definition as well as the conceptual framework the two (2011) laid out, which is grounded in the theoretical framework advanced by Shuck (2010).

The Wollard and Shuck (2010) definition was chosen as the guiding definition for this study due to several factors. First, the definition is theoretically grounded in the operationalization—produced by Kahn (1990)—of an individual investing their one true self when engaging in the organizational setting. That is, the individual makes a conscious choice to engage. This definition contrasts with the operationalization of engagement by Harter, Schmidt, and Hayes (2002), which focuses on one's satisfaction with work as a basis for engagement. Secondly, the Wollard and Shuck (2010) definition focuses on an individual dedicating cognitive, behavioral, and emotional resources toward the attainment of organizational goals. By contrast, the operationalization of employee engagement by Schuafeli et al. (2002) is characterized by the individuals'

engagement *vis a vis* their relationship—through vigor, absorption, and dedication—to the work performed and not through individual choice. Similarly, the Wollard and Shuck (2011) framework is theoretically grounded in the engagement theory of Kahn (1990). In essence, scholars generally agree that Kahn is the root for engagement theory (Saks, 2006; Shuck & Wollard, 2010; Christian et al, 2011; Saks and Gruman, 2014; Byrne, 2015)—therefore, by focusing on a framework rooted in Kahn (1990); this meta-analysis seeks to provide clarity amongst frameworks.

**Intention to turnover.** Intention to turnover is an employee’s cognitive decision to “to leave the organization within the near future” (Carmeli & Weisberg, 2006, p. 193). This decision can lead to voluntary turnover—defined as “an employee's decision to terminate the employment relationship” (Dess & Shaw, 2001 p. 446)—as opposed to involuntary turnover, which is defined as “an employer's decision to terminate the employment relationship” (Dess & Shaw, 2001 p. 446). Recent turnover meta-analysis reveals the negative impact turnover relationships have on organizational performances and outcomes (Park & Shaw, 2013). These negative relationships cause organizations to suffer costs in both financial and performance outcomes with the loss of employees (Park & Shaw, 2013). The cost of turnover, in terms of how turnover affects the individual, center around an individual’s degradation of trust in the organization’s intentions relating to shared individual and organizational outcomes (Leana & Van Buren, 1999; Park & Shaw, 2013).

The research is clear that the negative relationship of turnover, even when positive or helpful for the organization, has a negative impact on the individual. Research suggested that employee engagement impacts an individual’s desire to turnover (e.g.,

Alfes, Shantz, Truss & Soane, 2013; Timms et al, 2014). This review, by examining the summary effect of engagement on turnover intentions, has the potential to give organizations a competitive advantage and increase performance outcomes.

### **Significance of the Study**

This study will contribute new knowledge to the field around theory building by exploring the conceptual link between individual and organizational antecedents, and how those antecedents interact. This new knowledge will provide a new understanding of how individual and organization variables interact with one another, their relation with employee engagement, and how each variable influences organizational outcomes (Purcell, 2014). Armed with this knowledge, individuals and organizations can make informed decisions about employee engagement initiatives.

Moreover, this review shall contribute new knowledge to the field around research by exploring employee engagement as a mediation variable (Saks & Gruman, 2014). Additionally, this research provides an examination of effect sizes related to employee engagement, such as the effect size between individual employee engagement antecedents (i.e. work-family conflict) and employee engagement, which might enable future research to more clearly understand the practical significance of the employee engagement construct. This examination, using the meta-analytic methodology lacking within the HRD community, provides tools for future HRD researchers to conduct future HRD focused systematic reviews (Newman, Hitchcock, & Newman, 2015; Reio, Nimon, & Shuck, 2015).

This examination deepens understanding of the impact of antecedent variables on employee engagement as well as engagement outcomes where “little research has

purposely focused” on antecedent impact on employee engagement and employee engagement outcomes (Wollard & Shuck, 2011). In essence, intent to turnover is a primary outcome that organizations focus efforts to curb due to decreased performance and increased costs (Shaw, 2011). Moreover, individuals make a cognitive choice to disengage and foster turnover intentions (Madden, Rivera, Madden, 2015). Therefore, this survey of employee engagement seeks to explore antecedent and engagement impact on turnover intentions.

This research will contribute new knowledge to the field around practice, that is, how employee engagement practitioners develop organizational employee engagement strategies, by demonstrating how organizations might best influence certain aspects of culture as an antecedent to employee engagement. This new knowledge has the potential to impact an organization’s bottom line as well as increase their firm’s competitive advantage. By using the framework established by Wollard and Shuck to produce a meta-analytical correlation matrix, this examination seeks to aid scholars and practitioners in employee engagement efforts as well as provide a base that provides clarity for future scholars to build upon. This matrix shall provide effect size direction and impact that will enable scholars to infer conclusions about employee engagement antecedents of work–family conflict and supportive organizational culture as well as employee engagement and the outcome of intent to turnover.

### **Definition of Key Terms**

The following section presents definitions to key terms used throughout this investigation. These terms and concepts have been discussed in the sections above, and are presented here for reference.

*Work–family conflict.* This term was previously defined on page 7 using the Greenhaus and Beutell (1985) definition wherein involvement in work roles precludes full participation and effort in the execution of family roles and responsibilities ultimately leading to conflict. The bi-directional nature of work–family conflict as dependent construct will be operationally defined as work interfering with family (WIF) and family interfering with work (FIW) (Frome et al., 1992; Greenhaus & Beutell, 1985).

*Supportive Organizational Culture.* This term defines an organization culture that “represents and protects its core values by trying to use the flexibility of operational procedures to meet the employees’ needs, maintaining human relations and showing concern for people” (Sok et al., 2014, p. 460).

*Employee engagement.* This term is defined as “an individual employee’s cognitive, emotional, and behavioral state directed toward desired organizational outcomes” (Shuck & Wollard, 2010, p. 103).

*Intent to Turnover.* The definition of this term is a “conscious and deliberate desire” by an employee “to leave the organization within the near future” (Carmeli & Weisberg, 2006, p. 193).

### **Limitations to the Study**

The methods section will cover in detail my efforts to include all relevant research of the variables in question. This analysis will only include one organizational and one individual antecedent of engagement while, as a whole, the employee engagement construct has forty-two individual and organizational antecedents (Wollard & Shuck, 2011). The reason behind choosing a pair of antecedents versus multiple antecedents rests with the longevity and consistency of measure of work–family conflict relative to the

other antecedent variables, as well as research examining the interaction between work–family conflict supportive organizational cultures (Byron, 2005). The limitation is also mitigated due to meta-analytic works on organization outcomes that explore employee engagement (see e.g., Halbesleben, 2006; Halbesleben et al., 2009) as well as work–family conflict (Chen, Powell & Cui, 2014), which suggested these variables are well researched. No known meta-analytic studies of employee engagement—specifically, using the Wollard and Shuck (2011) framework or model—currently exist.

Understanding how the interplay between work–family conflict and a supportive organizational culture effects engagement provides a starting point for understanding how overlapping engagement efforts impact the choices individuals and organizations make when choosing how to direct resources in decisions that influence individual engagement.

### **Organization of the Study**

Chapter two will cover the current literature of employee engagement, supportive organizational culture, work–family conflict, and intention to turnover. Chapter three will detail the meta-analytic methodology used to examine variable interactions, and chapter four discusses the findings. Chapter five discusses research implications as well as the future directions of employee engagement research.

## CHAPTER 2

### LITERATURE REVIEW

This chapter begins, first, with an introduction to the foundational roots of employee engagement. Second, the current state of employee engagement is reviewed and, third, literature around both antecedents and outcome variables are explored. Lastly, this chapter concludes with a hypothesized meta-analytic path model, chapter summary, and overview of chapters three through five.

#### **Employee Engagement: The Foundational Roots**

Research suggested that employee engagement rests on four major theoretical frameworks: needs-satisfying (Khan, 1990); burnout (Maslach, et al., (2001); satisfaction-engagement framework (Harter, et al., 2002); and the multidimensional approach to engagement (Saks, 2006; Shuck, 2011). These four foundations are explained below. The Wollard and Shuck (2010) conceptual framework—that is theoretically rooted in Kahn’s “needs satisfying approach”—is my conceptual grounding. I shall introduce the other foundations for background and context, but the focus will be on Kahn’s approach as conceptualized by Wollard and Shuck (2010). Employee engagement scholars reliably identify Kahn’s (1990) ethnographic research as the first study to

explore engagement theory and its application to the workplace (Christian et al., 2011; Gruman & Saks, 2014; May, Gilson & Harter, 2004; Saks, 2006; Shuck, 2011).

**Needs-satisfying: Kahn.** Kahn defined the idea of personal engagement as “the simultaneous employment and expression of a person’s ‘preferred self’ in task behaviors that promote connections to work and to others, personal presence, and active full role performances” (Kahn, 1990, p. 700). Through his work, Kahn sought to determine if individuals behaved the same inside and outside the organizational environment and what types of fluctuations in their behavior occurred, if any. Results suggested that three psychological conditions were prerequisites for influencing positive levels of personal engagement: meaningfulness, safety, and availability (Kahn, 1990).

Psychological meaningfulness occurred when there was a positive “return on investment” for individual exertions, physical efforts, and emotional effort during job execution (Kahn, 1990, pp. 703–704). An individual derived a feeling of meaningfulness from their work by the nature of the task, their work role, and their work interactions (Kahn, 1990). Meaningfulness was absent when employees did not feel part of the organization due to not reaching their true potential during task performance (Kahn, 1990; Fairlie, 2011). Work viewed as not meaningful led to lower levels of engagement (Britt, Adler & Bartone, 2001). For example, Britt et al. (2001) suggested that meaningful work leads to increased levels of personal hardiness—allowing individuals to handle stressful situations better, which leads to higher levels of engagement—while lack of meaningful work inversely impacts hardiness and, ultimately, leads to lower levels of engagement.



The second condition for engagement, psychological safety, developed when an individual could express and operate in a safe environment as “one’s true self without fear of negative consequences to self-image, status, or career” (Kahn, 1990, p. 708). Kahn’s safe environment consisted of four factors: interpersonal relationships, group and intergroup dynamics, management style and process, and organizational norms (Kahn, 1990). Interpersonal relationships were seen as those that developed out of both positive and negative work interactions (Kahn, 1990). Positive work interactions between individuals and groups resulted from interactions that were free of fear over loss of status or influence (Kahn, 1990; Reio, Jr., & Sanders-Reio, 2011). Kahn theorized that management styles and processes prevented individual withdrawal from the work environment by providing a safe environment where management enforcement of organizational norms was a key facet that facilitated individual trust as well as engagement. Individuals instinctually withdrew from unsafe environments by not expending personal resources or engaging with their preferred self in the work environment (Halbesleben, 2010; Kahn, 1990).

The final dimension of Kahn’s notion of personal engagement was psychological availability. Psychological availability emerged from an individual’s “sense of having the physical, emotional, or psychological resources to personally engage at a particular moment” (Kahn, 1990, p. 714). Individuals brought these personal resources (e.g., behaviors, energy)—in addition to resources provided by the organization (e.g., a supportive organization culture)—toward organizational goals (Halbesleben, 2011; Wollard & Shuck, 2011). The study’s findings suggested that resource expenditure occurred when engaging in relationships both inside and outside the organization (Kahn,

1990). Social support provided individuals additional resources to bolster psychological availability and prevented individual instincts to conserve resources (Halbesleben, 2006; Halbesleben, 2011).

**Work engagement/burnout antithesis.** Following Kahn, the second engagement framework emerged from the burnout literature of Maslach, Schaufeli, and Leiter (2001). Employee engagement was conceptualized as work engagement—that is, *work engagement* focused solely on the individual and their work while *employee engagement* added organizational inputs and influences on individual engagement levels (Schaufeli, 2014, Shuck, 2011). Although these terms were and still are used interchangeably, Schaufeli (2014) notes the two terms are vastly different constructs. Work engagement was defined “as a persistent, positive affective-motivational state of fulfillment in employees that is characterized by vigor, dedication, and absorption” (Maslach et al., 2001, pg. 417). This conceptualization was based on burnout literature wherein the absence of burnout indicated a state of engagement (Maslach & Leiter, 1997; Maslach et al., 2001). Scores for engagement were obtained by reverse scoring the Maslach Burnout Inventory (MBI) creating a new instrument: The Utrecht Work Engagement Scale (UWES) (Cole et al., 2011; Maslach et al., 2001). Researchers using this scale explored work engagement antecedents (Dollard & Bakker, 2010; Mauno, Kinnunen, & Ruokolainen, 2007), work engagement as a mediating variable (Tuckey, Bakker & Dollard, 2012), and the impact of work engagement on performance outcomes (Alacron, Lyons & Tartaglia, 2010; Rurkkhum & Bartlett, 2012). The UWES has remained the most frequently used engagement measurement scale to date (Byrne, 2015; Christian et al., 2011; Cole et al., 2011; Saks & Gruman, 2014)

**Satisfaction-engagement framework.** A concurrent framework to work engagement emerged from the literature linking employee engagement to desired organizational outcomes. Research into this linkage was spurred by claims that close to 75% of the United States-based workforce were not engaged and, thus, negatively impacting organizations' ability to reach maximum performance outcomes (Bates, 2004). James Harter of Gallup led a practitioner-focused study on the impact of employee engagement on organizational outcomes (Harter et al., 2002). The Gallup Work Audit (GWA) was used to measure employee engagement, and it considered influences such as workplace environment and supervision (Buckingham & Coffman, 1999; Harter et al, 2002, p. 269). The results indicated that employee engagement had a statistically significant positive correlation to organizational outcomes such as profit and productivity.

**Multidimensional approach to engagement.** Adding to previous research, scholars examined a framework focused on the impacts of variables on employee engagement and the antecedent impact on outcomes. Saks (2006) examined employee engagement from a viewpoint that included both Kahn's (1990) framework as well as the Schaufeli and Bakker (2004) burnout-engagement framework. Saks's (2006) study examined individual and organizational antecedent effects on employee engagement as well as the impact of employee engagement on individual and organizational outcomes. The research model offered by Saks (2006) broke employee engagement into two distinct states: job engagement (JE) and organizational engagement (OE). The state of job engagement measured individual immersion into the job, and the state of organization engagement measured how individuals saw themselves as a part of the organization

(Saks, 2006). The study results suggested that employee engagement antecedents—such as perceived organizational support—positively impacted employee engagement. Furthermore, Saks concluded that employee engagement influenced outcomes such as organizational commitment and organizational citizenship behaviors. Findings also suggested that management must provide the resources, support, and commitment to facilitate individual investment of cognitive, emotional, and behavioral energies for engagement (Saks, 2006). After the publishing of Saks (2006), scholarly exploration of the employee engagement grew exponentially (Saks & Gruman, 2014).

### **The Current State of Employee Engagement Research**

**Emerging perspective.** Beginning in 2005, the number of scholarly articles on employee engagement began to multiply year after year (Oswick, 2015; Saks & Gruman, 2014; Schaufeli, 2014). This research was not restricted to one field or subfield, but rather expanded into a multitude of fields to include industrial and organizational psychology, human resource management (HRM), and HRD. In the following sections, I will explore the refinement of employee engagement from psychological and management literature. After doing so, I shall then tie up these threads with an exploration of employee engagement situated in HRD literature. The current state of employee engagement follows with exploration of antecedent variables.

**Refining the employee engagement construct.** Drawing from the work by Saks (2006), Macey and Schneider (2008) furthered the employee engagement construct refinement with a three-point conceptual model: state engagement, trait engagement, and behavior engagement. Macey and Schneider (2008) theorized that the employee engagement construct—as positioned by previous researchers (e.g., Maslach et al., 2001;

Harter et al., 2002)—related to specific conditions (i.e., antecedents), and that those conditions were believed to impact employee engagement and organizational outcomes. *State engagement* was a form of engagement that encompassed “some form of absorption, attachment, and/or enthusiasm,” and was operationally defined as having components of satisfaction, commitment, job involvement, and psychological empowerment (Macey & Schneider, 2008, p. 6). Moreover, *behavior engagement* was viewed as behaviors that place the organization above one’s self—for instance, organizational citizenship behavior or “discretionary effort” (Macey & Schneider, 2008, p. 14). Lastly, *trait engagement* was personality-based, during which an individual’s “positive, active and energetic ways to behave adaptively” impacted both state and behavioral engagement (Macey & Schneider, 2008, p. 14). In essence, individual and organizational antecedents were believed to interact with an individual’s overall level of employee engagement (Macey & Schneider, 2008). The study findings suggested that, in turn, individual engagement levels had both a positive and negative influence on individual and organization outcomes.

**Further employee engagement refinement: Management literature.** Research by scholars in other fields such as management, occupational health, and psychology followed previous research—particularly, in measurement of engagement as well as the mediating impact of engagement on antecedent and outcome variables. Rich, Lepine, and Crawford (2010) developed an alternate instrument to the UWES instrument. The 18-question instrument measured three aspects of job engagement: physical, emotional, and cognitive, which are grounded in Khan’s (1990) engagement theory. Rich et al. (2010) suggested that engagement was significantly correlated to other antecedent and outcome

measures reported (e.g., job satisfaction, organizational citizenship), and that engagement had a significant impact on relationships between engagement antecedents and outcomes (e.g., core self-evaluations and organizational citizenship). Additionally, findings suggested little impact of other possible mediation variables such as job involvement, job satisfaction, and intrinsic motivation (Rich, et al., 2010). The key is for organizations to develop human resource management practices that facilitate employee engagement.

Exploring the links between policy, employee engagement, and organizational outcomes, the link between human resource management (HRM) practices and employee engagement was examined by Alfes, Shantz, Truss, and Soane (2013) by using a refined version of the Rich, et al. (2010) scale. The findings suggested that HRM practices were significantly correlated to employee engagement as well as employee engagement antecedent and outcome variables (e.g., antecedent: perceived organizational support; outcome: turnover intentions) (Alfes, et al., 2013). Additionally, the study's findings suggested that HRM practices influence employee engagement, and that this influence mediated relationships to desired organizational outcomes such as lower turnover intentions. These findings infer a hypothesized overlap between individual and organizational employee engagement antecedent variables (Wollard & Shuck, 2011). However, although the reporting of one study and just two employee engagement antecedents severely limits generalization, it does bolster further overlap plausibility between other antecedents. Further research into organization impacts on employee engagement explored how a supportive organization culture fostered employee engagement.

Organizations that foster information sharing and communication created a culture of inclusion that enabled employee engagement (Downey, VanDerWerff, Thomas, & Plaut, 2014). For example, Downey et al. examined diversity practices and inclusion effect on employee engagement. Drawing upon a sample of 4,597 healthcare employees from a large corporation, the findings suggested significant correlations between employee engagement, diversity practices, inclusion, and trust climate (Downey et al., 2014). Downey et al (2014) results give the impression that organizational efforts to foster employee engagement seems to empirically support the theory that organizational antecedents influenced employee engagement (Wollard & Shuck, 2010). For example, Wachter and Yurio (2014) adapted items from the Rich et al. (2010) scale to explore the impact of employee engagement on safety management practices and reducing accidents. The research suggested that more engaged workers are more supportive of organizational safety initiatives, more likely to place resources towards workplace safety management practices, and less likely to have lost time due to accidents (Wachter & Yurio, 2014).

**Tying research together: Human Resource Development (HRD).** One field that has benefited immensely from the various debates (e.g., scholar vs. practitioner; individual vs. organization engagement) was the field of HRD. HRD is defined as “a process of developing and unleashing expertise for the purpose of improving individual, team, work process, and organizational system performance” (Swanson & Holton, 2009, p.4). HRD’s focus on both the individual and the organization allowed for a holistic approach (i.e., individual and organizational) to employee engagement, which work engagement lacked (Schaufeli, 2014).

Drawing on previous research, in addition to the conceptual refinement offered by Macey and Schneider (2008), Shuck and Wollard (2010) furthered employee engagement research in HRD. The study identified the popularity of the term “employee engagement” from a variety of scholarly and practitioner sources, and then researched the roots of employee engagement by conducting a seminal review of the literature. Specifically, Shuck and Wollard (2010) sought to understand the conceptual foundations, evolution, and definitions of employee engagement up to that point. Results from their work suggested employee engagement was a highly researched and emerging construct. Findings also suggested employee engagement was an individual construct, impacted by organizational and individual variables, which could be used to measure and predict both individual and organizational outcomes (Shuck & Wollard, 2010).

A follow-up study by Wollard and Shuck (2011) explored the suggested organizational and individual impacts on employee engagement by examining employee engagement antecedent variables at both the individual and organizational level. A structured literature review yielded 265 articles in 10 databases containing the term “employee engagement” with findings that indicated 42 antecedent variables to employee engagement were present and, also, evenly divided between 21 individual and 21 organizational antecedents (Wollard & Shuck, 2011). Additionally, the study’s findings indicated that only half of the antecedent variables had studies that published quantitative results. A gap Wollard and Shuck (2011) identified in the literature involved “natural-seeming links” between individual and organization antecedents (p. 438). The interactions between individual and organizational antecedent variables are theorized to influence individual employee engagement levels (Wollard & Shuck, 2011).



Further HRD research focused on employee engagement antecedent and outcome variables, variable causality, and experimental studies (Shuck, Reio & Rocco, 2011). For example, Shuck et al. (2011) conducted a correlational study examining the links between antecedent variables (e.g., affective commitment), employee engagement, and organizational outcomes (e.g., intent to turnover). The research findings suggested the links between antecedents, employee engagement, and organizational outcomes were statistically significant. Employee discretionary efforts, for instance, are influenced by a supportive organizational culture, and this supportive culture fosters meaningfulness that facilitates employee engagement in ways that lower employee turnover intentions (Shuck et al., 2011). Cultural influence seems to indicate that leadership (through a supportive organizational culture) has an impact on engagement (Rose, 2016; Shuck et al., 2011). Additionally, leaders influence the engagement environment and create a climate where employees feel safe to engage in pursuit of meaningful work (Fairlie, 2011; Kahn, 1990). Furthermore, Fairlie (2011) found that meaningful work was a significant predictor of employee engagement. Taken together, leadership and the culture driven by leadership influences individual engagement levels.

Recent HRD research has continued to focus on theory development, organizational policies, and the organizations engagement culture. Valentin (2014) suggested government and consulting firms claim that employee engagement-inducing programs give organizations a competitive advantage, which drove organizational engagement efforts. This resulted in organizational pressures to meet unrealistic organization expectations that engagement would deliver desired organizational outcomes (Valentin, 2014). Instead, Valentin suggested that, rather than creating a hyper

engagement driven environment, HRD policies are needed along with procedures that allow for issues that create a better work environment. Godkin (2015) argued that the driving force behind employee engagement organizational practices is the leadership of mid-level management facilitating “strong employee relations” to obtain desired organizational outcomes such as increased corporate social responsibility amongst employees.

Despite this focus on leadership and organizational engagement policies, recent research suggests that empirical examination of the links between engagement and leadership styles has focused on transformational leadership with “little empirical examination on leadership styles such as ethical leadership,” or other styles such as authentic or charismatic leadership (Saul, Kim & Kim, 2015). Indeed, organizations that empower leaders to facilitate engagement with focused organizational policies and procedures designed to support the individual—namely, align individual skills with the right job—will foster higher levels of engagement as both the desired outcomes of employees and the desired organizational outcomes are met (Alagaraja & Shuck, 2015). Additionally, a dysfunctional leader at the wrong place at the wrong time can negate the best organizational HRD efforts to foster engagement as well as other desired organizational outcomes (Rose, 2016; Rose, Shuck, Twyford, & Bergman, 2015). Recent HRD scholarship suggests that organizations “encourage and enable” employee engagement through the selection of the right leaders as well as by driving engagement via HRD and HRM policies, not through direct organizational control (Oswick, 2015, p. 14). This push for organizations to foster—not control—employee engagement is central to creating the type of culture wherein employees find meaning, feel safe, and are willing

to expend individual resources toward the pursuit of desired organization outcomes (Fairlie, 2010; Halbesleben, 2011; Kahn, 1990).

Beginning in 2008, scholars sought to gain a critical perspective of employee engagement. Research suggested that employee engagement did have an impact on desired organizational outcomes, as found by practitioners such as Gallup, government studies, and other consultancies (Saks & Gruman, 2014). Researchers began a scholastic exploration of relationships amongst employee engagement antecedents, employee engagement, and employee engagement outcomes (Byrne, 2015). The antecedent variable exploration included both organizational and individual inputs that, as research suggested, influence one another in the creation of an engagement-inducing environment (Wollard & Shuck, 2011).

### **Issues and Challenges**

Despite twenty-five years of research, there is no unifying framework where scholars agree (Saks & Gruman, 2014). For example, Purcell's (2014) criticism has suggested that past engagement research "focused on work engagement" and suffers from a "lack of context" (p. 242). Even though there are multiple measures, studies, and theories that examine the impact employee engagement has, there is still difficulty "showing conclusive and casual evidence between engagement and performance" (Purcell, 2014, p. 248). Despite a solid foundation from Kahn (1990), Saks (2006), Macey and Schneider (2008), as well as Wollard and Shuck (2011), employee engagement still has "no universally accepted definition" (Meyer, Gagne, and Parfyonova, 2010, p. 63). Indeed, the terms and definitions for job engagement, work engagement, and employee engagement are often confused and interchanged, leaving "no

generally accepted theory of employee engagement” (Saks & Gruman, 2014, p. 156).

Aside from the prolific employment of the UWES to measure employee engagement, research has suggested that the UWES was “empirically redundant” with similar scales measuring job burnout (i.e., the MBI; Cole, et al., 2011, p. 28).

Additionally, the use of the term “employee engagement” with work engagement has further exacerbated confusion among scholars as to which construct is being measured (Cole et al., 2011). Conceptually, work engagement is understood as the opposite of burnout—that is, if an individual is not experiencing high levels of burnout, then that individual must be engaged (Maslach et al., 2001). However, research suggested that the high inter-collinearity of the underlying dimensions of burnout and work engagement—as well as confusing interchangeability of the work engagement construct with employee engagement—make it difficult to use the UWES as a viable measure of employee engagement (Saks & Gruman, 2014).

Following up on an examination by Albrecht (2010), Byrne (2015) suggested employee engagement still exists “as a relatively novel concept in both the popular and academic press” that requires more “theory, debate and empirical studies for clarifying its uniqueness and validity” (Byrne, 2015, p.2). Byrne (2015) stated that Albrecht’s (2010) “10 key issues or questions” about employee engagement were not satisfactorily answered, so she set a research agenda that focuses on developing an organizational culture where employee engagement is contagious from one employee to the next. In her research, Byrne (2015) goes to great lengths to show how employee engagement is a unique construct whilst offering her own definition of employee engagement:

[A] moment to moment state of motivation, wherein one is psychologically present (i.e., in the moment) and psycho-physiologically aroused, is focused on and aligned with the goals of the job and organization, and channels his or her emotional and cognitive self to transform work into meaningful and purposeful accomplishment.” (Byrne, 2015, p.15)

Though this definition follows the same path as previous research (c.f., Kahn, 1990, Macey & Schneider, 2008, Maslach et al., 2001, Saks, 2006, and Schaufeli et al., 2002), there is much less parsimony than the direct definition given by Shuck and Wollard (2010). The current research agenda calls for study into engagement measures to gain “accumulated validity to support their use” (Byrne, 2015, p.196).

The future path of employee engagement research is to get beyond the debate on a unifying framework. Research into employee engagement should attempt to examine “factors and intervening variables” (Oswick, 2015, p. 14) that influence employee engagement, which is viewed as “a relatively broad and poorly understood phenomenon” (Oswick, 2015, p. 14). Indeed, the call to HRD researchers is to employ more sophisticated quantitative techniques such as meta-analysis to improve “theory, guide empirical research, and inform organizational practice” (Reio, Nimon, & Shuck, 2015, p.3). A method such as meta-analysis enables employee engagement researchers to better understand the actual impact of the many measures of engagement that “should inform practice as much as theory” (Newman, Hitchcock, & Newman, 2015, p.129).

Consequently, I seek to explore the theorized influence between the individual and organization antecedents of work–family conflict and supportive organizational culture on employee engagement as well as the meditational role of employee engagement on

turnover intentions—as an outcome measure—using the meta-analytic technique. The following sections review, in detail, the proposed antecedents and outcomes.

### **Employee Engagement Antecedents**

**Work-family conflict.** In the literature, Greenhaus and Beutell (1985) were the first to explore work–family conflict (WFC) as a separate and autonomous variable. Building on the research of Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964), Greenhaus and Beutell (1985) expanded this conflict type specifically to examine the conflict that arises from a person’s attempt to balance workplace roles as well as the demands pertaining to familial responsibilities. Work–family conflict was previously defined in chapter one as a conflict between an individual attempting to fulfill separate roles involving work and family. Early research into WFC examined the conflict created by the interplay of work and family demands. A 1977 study—published after the Greenhaus and Beutell (1985) study—examined WFC married men and women (Voydanoff, 1998). Voydanoff (1998) explored the characteristics of a subject’s work as well as the impact of family and work demands on the subject’s ability to manage the interaction between demands. Additionally, this research examined an individual’s perceived control over demands versus the actual measured conflict emanating from those demands (Voydanoff, 1988). The findings suggest that an individual’s perceived control is tied to their ability to control their schedules (Voydanoff, 1998). An interesting finding was that the family structure (e.g., number of children) did have a significant correlation to the amount of conflict. In essence, women experience more conflict when the youngest child is below the age of five, and men experience the same correlative level

for all children (Voydanoff, 1998). Overall, men experience more WFC from work roles while women experience more WFC from family roles (Voydanoff, 1998).

Subsequent WFC studies focused on expanding the understanding of both antecedents of WFC as well as the impact of a variety of organizational outcomes such as turnover intentions and performance. For instance, Kossek and Ozeki's (1999) research increased the number of outcomes impacted by WFC. Their findings suggested that not all outcomes were affected evenly across both directions of WFC—as originally proposed by Frome et al. (1992a)—but it did show how WFC in the direction of family to work conflict could have greater impacts on organizational outcomes rather than individual outcomes (Kossek & Ozeki, 1999). In a similar study, Thompson, Beauvis, and Lyness (1999) examined the effects of work culture on WFC and whether or not culture could somehow assist in measuring WFC. Work–family culture was defined as “the shared assumption, beliefs, and values regarding the extent to which an organization supports and values the integration of employees’ work and family lives” (Thompson et al., 1999, p. 394). Moreover, it is operationally defined by three components: work prioritized before family, family first priorities have negative career effects, and positive organizational support. The study's findings suggest that only the last component of managerial support has any significance.

Work–family researchers also used quantitative data-analytic techniques (i.e., meta-analysis [Reio et al., 2015]) to examine antecedent variable effects on WFC outcomes. For example, research suggested that employee engagement was connected to job satisfaction as an outcome with culture (Michel, Mitchelson, Kotrbra, Lebreton, & Baltes, 2009; Rivera & Flinck, 2011). Thirteen antecedents—including organizational

support and demands from both family and work—were measured along with their impact outcomes regarding satisfaction with life, job, and family. The results suggest that there is a negative correlation in the relationship between WFC and satisfaction outcomes (Michel et al., 2009). An earlier meta-analysis found similar results between conflict and culture (i.e., “work support”) that suggested the influence of culture on WFC mitigates impact on organizational outcomes (Byron, 2005).

Lastly, research suggested that WFC has a significant impact on organizational outcomes such as employee engagement and turnover. Work–life balance, a connected construct to WFC, was linked to organizational support policies that allowed individuals more flexibility in performing work roles, which thus facilitated higher levels of employee engagement (Bedarkar & Pandita, 2014). Similarly, Prottas’s (2013) findings indicated a positive correlation between WFC and turnover, and a negative correlation between WFC and employee engagement. In other words, as the amount of conflict rises, individuals are more apt to become disengaged and, subsequently, more likely to turnover than are individuals who experience lower levels of WFC (Prottas, 2013). Prottas’s (2013) findings suggest that the level of trust (i.e., supportive culture) an individual perceives increases the likelihood that particular individual is to engage.

**Supportive organizational culture.** An organization’s culture is defined by shared norms, values, customs, or beliefs between members of an organization or group (Bolman & Deal, 2008; Brown and Starkey, 1994; Erkutlu, 2010; Schein, 2010). Culture serves as a foundation for both individuals and organizations in the pursuit of organizational goals (Pool, 2000). A supportive organizational culture (SOC) is a culture that presents employees with “challenging work, open communication, trust, [and]



innovation” (Pool, 2000, p. 374). A supportive organizational culture fosters a sense of teamwork between individuals, management, and those outside of the organization who have a vested interest in the organization's success (Pool, 2000; Sambasvian & Yen, 2010).

Research suggested that SOC is an organizational variable that facilitates employee engagement (Byrne, 2015). Research also alludes to the relationship between supportive organizational culture and several employee engagement antecedent variables, such as organizational citizenship behaviors (Erkutlu, 2010), work–family conflict (MacDermid, Hertzog, Kensinger, & Zipp, 2001), job satisfaction (Burke, Burgess, & Oberlaid 2003; Lok & Crawford, 2004), turnover intentions (Burke et al., 2004) and job fit (Silverthorne, 2004). For example, Macey et al. (2008) describe trust as a variable that directly impacts SOC. Additionally, SOC serves as a mediating variable that influences individual employee engagement and organizational engagement efforts (Macey et al., 2008).

Taken further, trust underlies the relationship between management and employees to the extent that a lack of trust between employees and management could foster low levels of engagement (Alfes et al., 2013). Additionally, trust must be present for positive engagement interactions as well as for boosting engagement levels, and can be seen to foster a pro-diversity environment (Downey et al., 2014). Although this specific example of trust inducing engagement suggested the link between supportive organizational culture and employee engagement exists, the links between these two variables is disconnected given the amount of possible shared variables impacting both constructs (Lok & Crawford, 2004; Matthews et al., 2014; Silverthorne, 2004). Lastly,

research suggested that an individual's perception of the presence of a supporting culture has an impact on the level of individual employee engagement (Rich et al., 2010). Tying together organizational culture, employee engagement, and organizational outcomes, Shuck et al. (2014) examined the links between organizational support, employee engagement, and a desired organizational outcome: less turnover intent. The results indicated that all variables were significantly correlated and that employee engagement significantly mediated the relationship between organizational support of proactive employee engagement practices and turnover intention (Shuck et al., 2014).

### **Employee Engagement Outcomes – Intent to Turnover**

Turnover is a costly organizational outcome of interest to both practitioners as well as academic communities. Research suggested that turnover intention was the single best indicator of actual turnover (Madden, Mathais, & Madden, 2015). Knowing the turnover intentions of the workforce affords organizations the opportunity to invest in programs to prevent unwanted turnover—such as flexible work programs (Timms et. al., 2014)—instead of absorbing the costs associated with turnover (Guilding, Lamminmaki, & McManus, 2014; Madden et al. 2015). By understanding individual turnover intentions, organizations can attempt to adjust the culture to foster reengagement (Downey, et al., 2014). These programs foster a supportive organizational culture that reinforces an individual's level of trust, which research suggested impacts turnover intention (Park & Shaw, 2013).

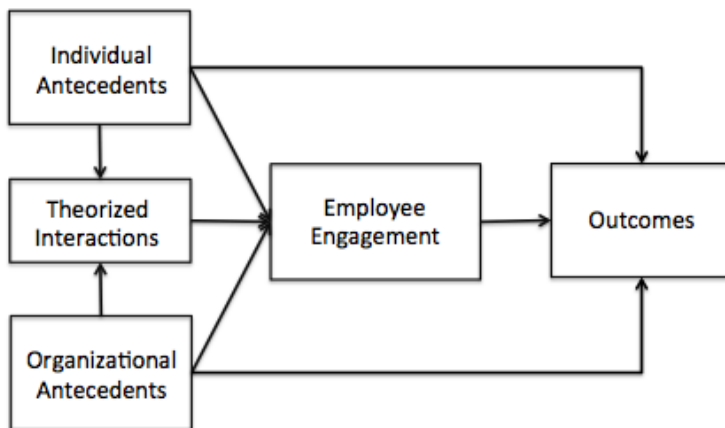
Similarly, a supportive organization culture addresses turnover intention factors—such as work–family conflict—that can influence employee engagement. For example, turnover researchers suggest cultural forces such as positive working relationships

(Madden et al., 2015), availability to resources to perform tasks (Crawford, LePine, & Rich 2010), and the creation/implementation of policies that reduce the amount of work–family conflict an employee experienced (Nohe & Sonntag, 2014) mitigated individual pressures impacting work–family roles, which thus influences individual withdrawal—namely, increased turnover intention (Zhang, Griffeth, & Fried, 2012). While this withdrawal state is not predictive of a future decrease in performance and engagement antecedents—such as job performance and citizenship behaviors—it can have a negative influence that ultimately decreases individual engagement (Hom, Mitchell, Lee & Griffeth, 2012, Swinder & Zimmerman, 2014). Connected, work–family conflict scholars suggest that setting firm boundaries between one’s work and one’s home life can not only influence turnover intention, but also lessen work–family conflict (Wu, Kawn, Liu, & Resnick, 2012). Additionally, research suggested that individuals experiencing higher levels of employee engagement are less likely to turnover, and that the mediation effect on turnover by higher levels of engagement is significant (Andrew & Sofian, 2012).

Further research revealed turnover at moderate to low levels did have an impact on organizational outcomes—however, at higher turnover rates, the effect on organizational outcomes was found not to have as much of a significant impact (Park & Shaw, 2013; Shaw et al., 2005). Lastly, from a cost-benefit perspective, low to moderate turnover can be seen as a positive influence on both performance and financial metrics (Abelson & Baysinger, 1984; Shaw et al., 2005; Staw, 1990). The benefit, specific to the organization, is that organizations cut personnel who do not meet organizational norms and older employees that come with fixed benefit costs (Alexander, Bloom & Nuchols, 1994; Dalton & Toder, 1979; Park & Shaw, 2013; Shaw, Gupta, & Delery, 2005).

## Systematic Review & Meta-Analysis

A meta-analysis, or systematic review, of the linkage in the Wollard and Shuck (2011) model is both timely and appropriate. To date, there has been no systematic review examining the “naturally seeming links” between individual and organizational employee engagement antecedents. Although, as described above, there are many studies that examine parts of the model proposed in Figure 2.1, none have measured the sum. By examining the linkages of the model in Figure 2.1, I address several issues related to the measurement and theory of engagement.



*Figure 2.1. Wollard & Shuck (2011) Employee Engagement model*

First, by extracting the UWES, we can discover what the impact of employee engagement is on organizational outcomes—such as turnover intentions—without all the entanglement that comes with the UWES (Christian et al., 2011). Second, this review will focus on translating the remaining measures of engagement into an effect size that is less likely to suffer from the bias of individual correlational studies due to sample size, reliability, and other artifacts (Breugh, 2003). Lastly, employee engagement scholars

suggest that meta-analysis is needed to move forward the measure to better understand and refine employee engagement measurement (Byrne, 2015). Taken as a whole, this review will allow examination of the gap addressed by Wollard and Shuck (2011): links between engagement antecedents, the mediating impact of employee engagement, and the linkage between employee engagement on organizational outcomes such as turnover intentions.

### **Conclusion and Study Organization**

This chapter began with introduction to the foundational roots of employee engagement. Second, the current state of employee engagement was reviewed. Third, literature around both antecedents and outcome variables were explored. Lastly, this chapter concluded with a hypothesized meta-analytic path model, chapter summary, and overview of chapters three through five. Following this literature review, the study methodology is explained. Methodology is followed by the results, and a discussion on research findings.

## CHAPTER 3

### METHOD

This chapter presents the methods used to collect, describe, correlate, and interpret sets of scholarly works that relate to the measure of work–family conflict, employee engagement, and intention to turnover. The research questions examined in this meta-analytic exploration of employee engagement studies encompass all studies since Kahn (1990) to 2015. HRD researchers have identified the use of meta-analysis as a technique to better understand the factors that influence individuals within the workplace (Gubbins & Rousseau, 2015).

This chapter begins by reviewing research design, meta-analytic paths tested, and search strategies used to explore work–family conflict, supportive organizational culture, employee engagement, and intention to turnover. Study inclusion and coding procedures are presented followed by statistical procedures and conventions used to extract effect sizes. In an effort to be fully transparent, I followed best practices in systematic reviewing and meta-analysis (e.g., as set out by Aytung, Rothstein, Zhou, & Kern, 2012) regarding the use of explicit inclusion and exclusion criteria as well as studying the coding procedures.

#### **Conceptual Framework**

The purpose of this study is to synthesize the results from previous research of work–family conflict, supportive organizational culture, employee engagement, and intention to turnover. Exploration will focus on the plausibility of overlap in individual and organizational antecedent variables, the effect this relationship has on employee engagement, and the size and effect of employee engagement on organization outcomes (Saks & Gruman, 2014; Wollard & Shuck, 2011). To date, there is no synthesis that looks at the path between individual and organizational employee engagement antecedents, employee engagement, and organization outcomes. Figure 3.1 maps the six paths explored.

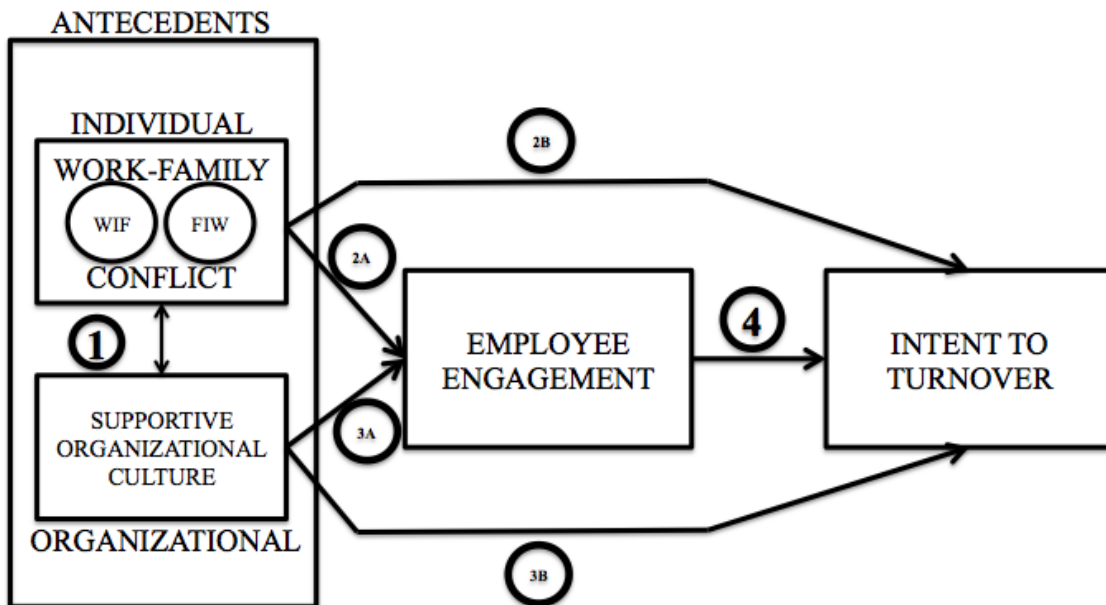


Figure 3.1. The Conceptual Framework of the Research Design.

This figure illustrates a model relating employee engagement toward intent to turnover. The numbers in the figure refer to the following paths:

- 1: The overlap between individual (work–family conflict) and organizational (supportive organizational culture) employee engagement antecedents.
- 2a: The impact of work–family conflict on employee engagement.
- 2b: The impact of work–family conflict on intent to turnover.
- 3a: The impact of supportive organizational culture on employee engagement.
- 3b: The impact of supportive organizational culture on intent to turnover.
- 4: The impact of employee engagement on intent to turnover.

### **Study Inclusion and Exclusion Criteria**

Studies were included in this meta-analysis based on four criteria. First, the study had to include quantitative results (i.e., no conceptual or opinion pieces, and no qualitative studies were included). Secondly, studies that included at least two of the variables of interest and reported the correlation between these were included (if a study appeared to meet other inclusion criteria without reporting a correlation of interest—provided the study was conducted after 2005—the study authors were contacted). Third, employee engagement was measured with a scale other than the UWES—in other words, the studies using the UWES as the only employee engagement measure were excluded. Recent research suggests that the work engagement measure is too closely correlated to exiting measures of burnout and may not be a good measure of employee engagement (Christian et al., 2012; Cole et al., 2011). Finally, studies reporting a survey instrument reliability lower than  $\alpha = .6$  were excluded. This exclusion is based on the “general accepted value for Cronbach’s  $\alpha$ ” as being between .7 to .8 (Field, Miles, & Field, 2012, p. 799). In addition, Cortina (1993) suggests that the number of items could impact the inter-collinearity between items yet have no impact on the overall alpha (Field et al,



2012). Therefore, a threshold of .6 was established to account for both the variance of scale and scale size, as well as the “generally accepted” reliability values.

**Search strategies.** I focused my review on primary studies that included correlations of at least two of the variables under question. Multiple overlapping strategies were used to ensure the initial inclusion of all potentially relevant studies, and to address the multi-disciplinary nature of employee engagement as well as to mitigate publication bias, or in other words the exclusion of studies due to such circumstances as language, statistical significance, or source of study (Borenstein et al., 2009; Hammerstørm, Wade, & Jørgensen, 2010). First, the following databases were searched: ABI/INFORM, Academic Source Premier, Business Source Premier, EBSCO, ERIC, Google Scholar, Proquest Library, Proquest Dissertation and Thesis, PsycINFO, Social Science Citation Index, and Web of Science. These databases were searched for any record that contained at least two of the variables in the *keywords*, *title*, or *abstract*. An initial search was used with the terms *employee engagement*, *job engagement*, *work–family conflict*, *WIF*, *FIW*, *supportive organizational culture*, *SOC*, were included with the terms “intent to turnover”, “turnover”, “intent to quit”, “quit” along with the specific search terms of “correlate”, “correlates”, “correlated”, and “study”, or “studies”. Using multiple terms for *engagement* and *turnover*, this ambitious search yielded over 500,000 hits. After comparing search terminology used in other meta-analysis of both employee engagement and work engagement—as well as consultation with employee engagement and meta-analysis subject matter experts (SME)—search terms were narrowed to “employee engagement”, “work–family conflict”, “supportive organizational culture” and “intent to turnover” along with “correlate”, “correlates”, and “correlated”. A

comparison of results between initial search term yield and refined search term yield was done purposefully to ensure that the use of the refined search terms did not introduce bias. The results of the refined search strategy generated 653 articles.

The second strategy focused on relevant seminal articles in the development and theoretical grounding of employee engagement. The seminal articles were: Kahn (1990), Saks (2006), Macey and Schneider, (2008) as well as Wollard and Shuck (2011). Forward citations, meaning an exploration of the reference sections of cited references within the seminal articles listed above for any articles relevant to this review, was examined for any research that could answer the questions of this investigation. If the search identified relevant literature reviews, these were reviewed for studies not obtained through the initial search. Finally, I contacted an SME (subject matter expert) on employee engagement for assistance in finding any unpublished studies.

### **Coding Framework**

**Study coding procedures.** I completed coding with any coding questions forwarded to an employee engagement SME as well as a meta-analysis SME for opinions on how best to resolve the issues brought forth by questions. The opinions of these experts were taken into consideration and then used as input from which to make an inclusion/exclusion decision. The screening guide consisted of publication type, the language of the study, research type (i.e., quantitative vs. qualitative study), inclusion of at least two variables of interest covered by the study, and the instrument used to measure employee engagement. In the first phase, I screened the title and the abstract of each study identified by the search process, using the screening guide located in Appendix A). Full-text studies were obtained the study in question met or appeared to meet the

screening guidelines inclusion criterion. I read each full-text study. The study was included in the review if it contained empirical data (e.g., correlation matrix, reported correlations) on at least two variables of interest and, specific to employee engagement studies, inclusion occurred when the employee engagement measure used was a measure other than the UWES.

The studies' effect sizes (correlations), variables, design type, employee engagement measure, and an assessment of study quality were coded. Using the coding guide located in Appendix B, each record (article) was examined and the results recorded in a spreadsheet.

**Reliability.** A pilot study was conducted to test the reliability of the coding guide and process. The pilot study identified relevant issues relating to the preciseness of keywords, the relevance of databases used, and the relevance of the coding procedure. During coding, if an issue arose that prevented coding, a meta-analysis SME was consulted to adjudicate. Example of a coding issues is missing instrument reliability (no Cronbach's alpha reported). Each instance was reviewed with the meta-analysis SME and a determination was made for inclusion or exclusion.

**Assessment of study quality.** Due to the nature of the research question, the primary indicators of the study's quality were indicators of score reliability and validity. Score reliability is an estimate of the consistency of scores obtained from an instrument (Pryczak & Bruce, 2011). Karras (1997a) provides an excellent example to understand reliability and validity. A sphygmomanometer that measures a patient's blood pressure consistently over time is both reliable and valid—however, if the measures have a wide variance, the findings are still valid, but unreliable (Karras, 1997a). Trying to measure

blood pressure with a thermometer would be invalid (Karras, 1997a). Taken further, Karras (1997a) posits that a thermometer giving incorrect measures consistently is reliable—but not valid. Low reliability scores, as measured by Cronbach’s alpha, can reduce the relationships (i.e., the observed correlation) between study variables (Shadish, Cook, & Campbell, 2002).

On the other hand, validity is defined as the “degree to which the measurement represents a true value” (Greenfield, Kuhn, & Wojtys, 1998). There are three types of validity: criterion-related, construct, and content (Karras, 1997b). Validity measures attempt to assess the consistency of a measure using an external criterion—such as correlation—with similar instruments measuring the same characteristics (Karras, 1997b). Assessing validity requires a reference standard to assess the study’s validity—that is, if no such reference exists, measuring validity becomes difficult. Measuring reliability is an “inherently quantifiable” method while testing validity is “often unmeasurable” (Karras, 1997a). As a result, I only examined score reliability, but I attempted to code information about validity presented in the articles. Reliability estimates from other sources (e.g., Kuder-Richardson) were reviewed on a case-by-case basis. If reliability coefficients were deficient or missing, attempts were made to contact the author to obtain coefficient alphas. The source of the coefficient was noted in the coding guide located in appendix B. No studies were excluded for missing coefficient alphas.

### **Statistical Procedures and Conventions Used**

**Selection of effect size.** The Pearson correlation coefficient ( $r$ ) was the primary effect size (the size and nature of the relationship between two variables). Comparisons

using raw correlation coefficients make analysis difficult. The difficulty stems from limitations based on coefficient range (bounded at -1 to 1) and the strength of correlation impacts the size of the correlation's variance (Shavelson, 1996). Due these limitations I created effect sizes by transforming the bivariate correlations ( $r$ ) into Fisher's  $z$  scores, which allowed the correlations to be modeled using a normal distribution centered at zero (Shavelson, 1996; Cohen, 2008). The effect sizes were then weighted by the inverse of their variance—as recommended by Borenstein, Hedges, Higgins, and Rothstein (2009)—to account for study sample size. The formula (see below) creates effect sizes from correlation into Fisher's  $z$ , where “ln” is the natural log and  $r$  is the study correlation coefficient.

$$z = 0.5 \ln \left[ \frac{1+r}{1-r} \right]$$

The variance for Fisher's  $z$  ( $V_z$ ) is calculated by dividing one by the total sample size minus three. Standard error is calculated by taking the square root of the Fishers  $z$  variance (see below), where  $n$  is the total number of participants,  $V_z$  is the  $z$ -score variance, and  $SE_z$  is the standard error.

$$V_z = \frac{1}{n - 3}$$

$$SE_z = \sqrt{V_z}$$

Once the analysis is complete, the correlations are transformed from their Fisher  $z$  scores back into their original coefficients to facilitate interpretation (see below), where the value  $e$  is approximately 2.718,  $z$  is the transformed Fisher's  $z$ , and  $r$  is the computed correlation coefficient.

$$r = \frac{e^{2z} - 1}{e^{2z} + 1}$$

The upper and lower limits of the summary effect are calculated for the weighted effect sizes. An interval not containing zero allows for rejection of the hypothesis that the population relationship was equal to zero. The weighted mean effect size was calculated (see below), where  $W$  is the inverse of the variance for study  $i$ ,  $Y$  is the within study variance for study  $i$ ,  $M$  is the weighted mean, and  $SE_M$  is the weighted mean standard error.

$$M = \frac{\sum_{i=1}^k W_i Y_i}{\sum_{i=1}^k W_i}$$

$$LL/UL_M = M \pm 1.96 \times SE_M$$

**Power analysis.** Due to the multi-discipline nature of employee engagement, the current study includes studies from the fields of psychology, management, human resource development, and business. The combined lifespan of the variables under research covers close to a 30-plus year span. The result is a variety of studies that are both vast and rich in amount. A power analysis was conducted to determine exactly how many studies would be required to meet statistical power requirements in order to draw inference. Valentine, Pigott, and Rothstein (2010) describe the process for establishing the minimum power threshold in meta-analysis. Valentine et al. (2010) suggested the minimal amount of studies needed for this examination to achieve both a statistical power near .8 to detect and an effect size of .15 is 40 studies. Additionally, Borenstein et al. (2009) recommend at least 25 studies to detect an effect size of .2 - .4 with a power of nearly 1.

**Handling of non-independent effects.** Non-independent effects, such as multiple time points and multiple employee engagement construct measures, were examined. Effect sizes for studies reporting multiple time point measure as well as

multiple construct measures were calculated using the Borenstein, Hedges, Higgins, and Rothstein (2009) method. The mean effect size and variance across time points is calculated using the formula (see below), where  $m$  is the number of time points,  $Y_j$  is the outcome of study  $j$ ,  $v$  is the variance, and  $r$  is the correlation coefficient. The summary effect size was then calculated using the procedures outlined in the “selection of effect size” section.

$$\bar{Y} = \frac{1}{m} \left( \sum_j^m Y_j \right)$$

$$V_y = \frac{1}{m} V(1 + (m - 1)r)$$

### Data Analysis Framework

**Fixed vs. random-effects model.** Researchers conducting a meta-analysis must determine which statistical model they shall employ to analyze results. The *fixed-effect model* is used when the assumption is that all studies have one true effect size and that sampling error is responsible for any differences among the observed effects. Borenstein et al. (2009) recommend two criteria be met in order to use a fixed-effect model: a) belief that all studies are functionally identical, and b) the desire to compute a common effect size for a specific population that will not generalize to other populations. *Random-effects models* are more appropriate when: a) researchers studying the variables under consideration operated independently, and b) the assumption that studies are not functionally identical. A random-effects model does not make the true effect size assumption and allows that the true effects can vary between studies (Borenstein et al., 2009). This meta-analysis uses random-effects modeling due to the plurality of measures used to measure employee engagement, interest in the overall effect of employee

engagement on different populations, and the desire to negate impacts of sampling error resulting from the use of multiple employee engagement instruments (Hedges & Vevea, 1998).

**Homogeneity analysis.** Using the random-effects model allows the true effect size to vary between studies. A *homogeneity test* determines whether or not variation is due to sampling error, which is expected in estimating the true effect size, or the result of other factors besides sampling error. The statistic to determine homogeneity,  $Q$ , calculates a value by computing each individual effect size, subtracting the weighted mean effect size, squaring that sum, and multiplying by the individual weight of the individual study. The resulting values are then summed and provide the value of  $Q$ . Degrees of freedom are calculated by taking the number of studies included minus one. The formulas for  $Q$  and the degrees of freedom (see below) are where  $w_i$  is study weight,  $ES$  is the effect size,  $df$  is the degrees of freedom, and  $k$  is the number of studies.

$$Q = \sum_{i=1}^k W_i (Y_i - M)^2$$

$$df = k - 1$$

The homogeneity analysis null hypothesis was that studies are estimating the same true effect. A chi-square distribution of  $Q$  compared to the degrees of freedom is used to determine statistical significance. A significant result would suggest that the studies are not estimating the same true effect and are, therefore, heterogeneous. A statistically significant result suggests further testing to determine how other factors between studies are contributing to true effect variance.

**Moderator effects.** There are two related tests to understand variability between studies: tau-squared ( $\tau^2$ ) and  $I^2$ . In essence,  $\tau^2$  is the “variance of true effect sizes”



(Borenstein et al., 2009, pg. 114), and is determined by the formula for  $T^2$ , which is an estimation of the observed effects (see below), where  $Q$  is the  $Q$  statistic,  $df$  are the degrees of freedom, and  $C$  is a quantity that is calculated by taking the sum of the study weight for study  $i$  minus the sum of the squared study weights minus sum of the study weights.

$$T^2 = \frac{Q-df}{C}$$

Where tau-squared is examined on the same scale as the true effect, the use of  $I^2$  examines true effect variance independent of scale (Borenstein et al., 2009). The use of this statistic allows speculation on variation range and source. This statistic is calculated using the formula (see below) where  $Q$  is the  $Q$  statistic, and  $df$  are the degrees of freedom.

$$I^2 = \left( \frac{Q-df}{Q} \right) \times 100\%$$

**Publication Bias.** Publication bias is defined as “the selective submission or acceptance of research for publication based on the attainment of statistically significant results” (Preston, Ashby, & Smyth, 2004, p. 313), and it occurs when studies are not published due to a variety of reasons. These reasons include: Language bias: only studies in English are included in meta-analysis; Field bias: researchers only include studies from a singular field, usually the one the researchers belong too and publishing in a journal restricted to that field; Availability bias, wherein studies are included due to ease of access, usually to a certain database, while studies harder to access are left excluded; and finally Significance bias: Only studies that yield statistically significant results are published and therefore non-significant studies are not included (also impacted by

availability). A *funnel plot* and a *trim-and-fill method funnel plot* were used to address publication bias.

A funnel plot distributes the mean standard error of effect sizes, and then calculates a risk ratio to determine whether or not a publication bias exists (Borenstein et al., 2009). The trim and fill method was used to examine funnel plot asymmetry (Duval & Tweedie, 2000). A symmetrical graph suggests that there is little evidence of publication bias, as larger studies will tend to group tightly towards the top of the graph with smaller studies spreading out to create the bottom of an inverted funnel. In essence, asymmetry indicates the possibility of bias (Ferguson & Brannick, 2012; Preston et al., 2004).

## **Summary**

This chapter presented how the meta-analysis was performed. The conceptual framework of this meta-analysis presented six variable pairings. Study inclusion and exclusion frameworks were presented along with a detailed search strategy. The coding framework presented a plan to ensure reliability, inclusion of quality studies, as well as procedures to allow coders to work out differences and make judgment calls. The statistical procedures were then explained in detail, to include a power analysis and a plan for handling non-independent effects. Effect sizes were generated from reported correlations, transformed into Fischer's z scores, and then weighted using the inverse weighted method. The data analysis explained the choosing of the meta-analytic model, homogeneity analysis, and a plan to minimize publication bias.

## CHAPTER 4

### RESULTS

This chapter includes the study results broken down into five sections. Section one covers the search, screening, and coding results. Section two reports the descriptive statistics of studies for inclusion. Section three details the results of the random-effects model for the resultant variable pairings. Section four examines detection results for publication bias, presenting both statistics and resultant plots. Finally, section five summarizes this chapter and outlines the next chapter.

#### **Search Results**

**Screening results.** The database search using the variable combinations outlined in chapter three yielded 687 returns. Endnote 8.1 was used to sort and screen these returns. Three hundred and fifteen duplicates were removed, which left a total of 372 candidates for screening. If any screening criteria were not explicitly *yes/no*, then the screening question was answered as *don't know/can't tell* and was kept for further screening/inclusion. Many candidates—209 in number—were excluded due to not measuring two variables of interest together, often only measuring one or none. For example, an abstract would suggest that the study measured or examined employee engagement. A full-text examination would reveal that work engagement was the construct under review, not employee engagement, and the UWES was the survey instrument (e.g., Amah, 2016). Nineteen candidates were excluded due to the article not being in the English language. Five studies that did mention employee engagement and

not work engagement were excluded due to mentioning of the UWES as the measurement instrument (Ballard, 2012; Holsten-Okae, 2017; Louison, 2007; van Schalkwyk, du Toit, Bothma, & Rothmann, 2010; Watts, 2017). Three qualitative studies were also excluded (Aburge, 2017; Rana, Ardichvili, & Tkachenko, 2014, Shankar & Bhatnagar, 2010). Candidates were screened using the screening guide located in appendix A. Table 4.1 details the reasons and numbers for screening results and coding inclusion.

Screening results produced 136 candidates for coding. The University of Louisville library and interlibrary loan apparatus was used to locate full text or PDF versions. Ultimately, 16 candidates were deemed unavailable (nine of which were in a foreign language). This left 120 studies to be coded using the coding guide located in Appendix B.

Table 4.1

*Screening Results*

Screening Reason	Total Screened	Excluded
Not in English	372	19
Two Variables Not Measured	353	209
UWES Used	144	5
Qualitative	139	3
Report Correlations	136	0
Total for Coding	136	-

**Coding results.** Coding procedures revealed that 17 studies did not report correlations, which was either due to the articles format (i.e., literature review or meta-

analysis). Further examination revealed 14 studies that did not actually measure the variables in question, but the title, abstract, and keywords suggested the studies in question measured those variables. An example is a study abstract claiming to measure employee engagement or supportive organizational culture that measures work engagement and perceived organizational support, respectively. Appendix C was used to determine whether or not the reported variable was measured with an approved instrument. Additionally, coding procedures revealed that 18 studies claiming to measure employee engagement measured work engagement with the UWES instrument, prompting exclusion. And last, two studies were in Korean and, due to the PDF format, cutting and pasting the articles into Google Translate was unavailable. The final result saw 69 articles being coded for review. Table 4.2 outlines the reasons and numbers for coding as well as the final study inclusion.

Table 4.2

*Coding Results*

Coding Reason	Total Coded	Excluded
Unavailable	136	7
Unavailable - Not in English	129	9
Correlations Not Available	120	17
Two Variables Not Measured	103	14
UWES Used	89	18
Foreign Language Not Translatable	71	2
Studies Coded	69	-

**Descriptive Statistics**

**Variable pair distribution.** Results for the 69 studies coded for inclusion indicated that 57 of those articles measured the variable pair “work–family conflict” and “intent to turnover”, and 12 measured the variable pair “employee engagement” and “intent to turnover”. Within the following measured variable pairings, no studies passed screening and coding: “work–family conflict” and “supportive organizational culture”, “work–family conflict” and “employee engagement”, “employee engagement” and “intent to turnover”, and finally “supportive organizational culture” and “intent to turnover”. Table 4.3 contains the number of studies by variable pair.

Table 4.3

*Variable Pair Distribution*

Variable Pair	Number of Studies
Work–Family Conflict - Supportive Organizational Culture	0
Work–Family Conflict - Employee Engagement	0
Work–Family Conflict - Intent to Turnover	57
Supportive Organizational Culture - Employee Engagement	0
Supportive Organizational Culture - Intent to Turnover	0
Employee Engagement - Intent to Turnover	12

**Publication type and methodology.** Results suggested that much of the research included in this examination were peer-reviewed journal articles. The most present methodology in the reviewed articles was cross-sectional (looking at populations over time), which was followed by correlational studies (looking at relationships at a single

point of time) (Field et al., 2012). Tables 4.4 and 4.5 list the publication type as well as the methodology by variable pairing.

Table 4.4

*Publication Type by Variable Pairing*

Publication Type	WFC/TO	EE/TO	Total
Journal	45	10	55
Government/Agency Report	0	0	0
Dissertation/Thesis	10	1	11
Conference presentation	2	1	3
Other	0	0	0
Unknown	0	0	0

Table 4.5

*Study Methodology by Variable Pairing*

Methodology	WFC/TO	EE/TO	Total
Experiment	0	0	0
Quasi-Experiment	1	0	1
Correlational	17	7	24
Cross-Sectional	34	4	38
Longitudinal	1	0	1
Meta-Analytic/Systematic Review	1	0	1
Other	1	1	2
Unknown	2	0	2

**Instrument reliability.** Instrument reliability was recorded and is presented in table 4.6. Overall, employee engagement measures Cronbach’s alphas, the measure of a survey instruments reliability, ranged from .72 to .96. Work–family conflict instruments alphas ranged from .67 to .97. Finally, intent to turnover Cronbach’s alphas ranged from .66 to .96. Cronbach alphas for two employee engagement studies, four work–family

conflict studies, and 16 intent to turnover studies were not reported. In the case of intent to turnover, the high number is due to only one question being asked for the intent to turnover sub-scale and no Cronbach’s alpha being calculated. The range of the instruments Cronbach’s alphas as well as the number of studies—not including this statistic—are located in Table 4.6.

Table 4.6

*Instrument Reliability Statistics*

Variable	Alpha Range	Median	Reported	Not Reported
Employee Engagement	.72 - .96	.87	10	2
Work–Family Conflict	.67 - .97	.87	53	4
Intent to Turnover	.66 - .96	.835	53	16

**Use of employee engagement instruments.** Results for studies coded measuring employee engagement indicate that the most used instrument was the Rich et al. (2010) scale. The use of the Rich et al. (2010) instrument—which was used in four studies—was double the nearest two mostly used instruments: The May et al. (2004) (used twice) and the Saks (2006) instrument (used three times). Despite these instruments’ long availability (over 10 years for May et al. [2004] and Saks [2006]), the low usage compared to the 18 UWES studies that made it through screening—but were discarded in coding—suggests that the UWES is still used as a primary measure for employee engagement. The continued use by researchers of the UWES instrument suggests an unfamiliarity with findings discussed in chapter 2 on the use of the UWES to measure employee engagement (see Christian et al., 2013). Table 4.7 displays the reported use of the employee engagement instruments.



Table 4.7

*Employee Engagement Instrument Use*

Employee Engagement Measure	Reported (N = 12)
May et al. (2004)	2
Saks (2006)	3
Britt (1999)	0
Rich et al. (2010)	4
Rothbard (2001)	0
Strumph et al. (2013)	0
Proprietary, Harter et al. (2002)/ (Gallup Q12)	1
Proprietary, Other	1
Other	1
Unknown	0

**Effect size and Fisher's Z transformation.** Correlations were coded and transformed into Fisher's Z, as described in chapter 3. Table 4.8 lists the results of this transformation.

Table 4.8

*Correlations and Fisher's Z Transformation*

Author(s)	Year	N	Pairing	r	Fisher's Z
Aboobaker et al.	2017	150	WFC/TO	.585	.67
Ali & Baloch	2009	283	WFC/TO	.584	.67
Alshutwi	2016	113	WFC/TO	.43	.46
Anwar et al.	2017	281	WFC/TO	.445	.48
Bagger	2006	196	WFC/TO	.255	.26

Bande et al.	2015	209	WFC/TO	.26	.27
Battistelli et al.	2013	440	WFC/TO	.18	.18
Blomme et al.	2010	247	WFC/TO	.45	.48
Chelariu & Stump	2011	185	WFC/TO	.36	.38
Chen et al.	2015	186	WFC/TO	.551	.62
Daderman & Basinska	2016	188	WFC/TO	.35	.37
Dion	2006	112	WFC/TO	.207	.21
Field	2010	399	WFC/TO	.18	.18
Flaxman	1999	92	WFC/TO	.11	.11
Grandey & Cropanzano	1999	132	WFC/TO	.21	.21
Grobelna & Tokarz-Kocik	2016	60	WFC/TO	.524	.58
Haar	2004	100	WFC/TO	.27	.28
Haar et al.	2012	197	WFC/TO	.41	.44
Hammer et al.	2011	197	WFC/TO	.33	.34
Hee	2017	101	WFC/TO	.326	.34
Huang & Cheng	2012	170	WFC/TO	.34	.35
Huh	2017	158	WFC/TO	.215	.22
Kao & Chang	2016	240	WFC/TO	.244	.25
Karatepe, Osman M.	2009	189	WFC/TO	.427	.46
Karatepe & Azar	2013	141	WFC/TO	.434	.46
Karatepe & Kilic.	2015	144	WFC/TO	.087	.09
Kossek et al.	2006	245	WFC/TO	.18	.18
Kuvaas et al.	2017	4518	WFC/TO	.37	.39

Liao	2011	236	WFC/TO	.12	.12
Ma, Regina	2013	991	WFC/TO	.34	.35
Mack	2015	59	WFC/TO	.9	1.47
Masuda et al.	2012	3914	WFC/TO	.23	.23
Mauno et al.	2015	814	WFC/TO	.099	.10
Molino et al.	2016	617	WFC/TO	.06	.06
Nei et al.	2015	2781	WFC/TO	.21	.21
Payne et al.	2012	316	WFC/TO	.28	.29
Prati & Zani	2016	5195	WFC/TO	-.24	-.24
Ribeiro et al.	2016	851	WFC/TO	.355	.37
Roulin et al.	2014	1547	WFC/TO	.35	.37
Sabokro et al.	2013	494	WFC/TO	.41	.44
Sachau et al.	2012	1185	WFC/TO	.34	.35
Sorensen et al.	2016	234	WFC/TO	.25	.26
Spector et al.	2007	5270	WFC/TO	.20	.20
Sturman & Walsh	2014	1032	WFC/TO	.31	.32
Tauetsile	2016	438	WFC/TO	.295	.30
Van Dyck	2012	156	WFC/TO	.45	.48
Wang & Zhang	2009	139	WFC/TO	.37	.39
Wang et al.	2017	325	WFC/TO	.37	.39
Yardley	1994	343	WFC/TO	.24	.24
Yavas et al.	2008	723	WFC/TO	.32	.33
Yonetani et al.	2007	179	WFC/TO	.15	.15

Yunita & Kismono	2014	210	WFC/TO	.363	.38
Zorlu	2012	206	WFC/TO	.673	.82
Kim & Jang	2014	225	WFC/TO	.40	.40
Park	2013	267	WFC/TO	-.229	-.23
Lee et al.	2014	143	WFC/TO	.21	.21
Jungman & Dous	2015	378	WFC/TO	.29	.30
Alfes et al.	2013	328	EE/TO	-.40	-.42
Appelbaum et al.	2013	17	EE/TO	-.67	-.81
bin Salahudin et al.	2016	170	EE/TO	-.955	-1.89
de Villiers & Stander	2011	278	EE/TO	-.25	-.26
Foster	2013	120	EE/TO	.46	.50
Gyensare et al.	2017	336	EE/TO	-.21	-.21
Halliday et al.	2018	23439	EE/TO	-.62	-.73
Liss-Levinson et al.	2015	10246	EE/TO	-.026	-.03
Malinen & Harju	2017	221	EE/TO	.29	.30
Shuck et al.	2013	241	EE/TO	.61	.71
Shuck et al.	2011	283	EE/TO	-.56	-.63
Shuck	2010	283	EE/TO	-.56	-.63

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*Note.*  $N$  = study sample size;  $r$  = correlation coefficient.

### **Random-Effects Model Results**

**Homogeneity results.** Homogeneity tests show that the resultant variable pairings are statistically significant. This statistically significant result suggests that rejecting the null hypothesis: the studies under review are not estimating the same true

effect and are heterogeneous, is proper. The results indicate a statistical result for the  $Q$  statistic, which indicated that a significant amount of heterogeneity in effect size was present. The significance of  $Q$  for both pairings suggests that the true effects vary, but it does not address the magnitude (Borenstein et al., 2009). This result also suggests that the use of the random-effects model was appropriate (Medina, Sanchez-Meca, Marin-Martinez, & Botella, 2006). According to Maeda & Harwell (2016), the use of the  $Q$  statistic and Fisher's  $Z$  to evaluate effect size is not critically impacted by the low amount of studies found with the variable pairing employee engagement/intent to turnover. The mean effect size for work–family conflict and intent to turnover is .327. The mean effect size for employee engagement and intent to turnover is -.337. The lower/upper limits and standard error for work–family conflict and intent to turnover is smaller and lower than that of employee engagement and intent to turnover, which, along with the  $Z$  score significance, suggests that the pairing of work–family conflict and intent to turnover is more significant and accurate than the findings for employee engagement and intent to turnover. Table 4.9 reports the results of the Homogeneity tests. Table 4.10 displays the results of heterogeneity testing.

Table 4.9

*Homogeneity Results*

Correlated Variables	$k$	$M$	$SE_M$	$LL_M$	$UL_M$	$Z$	$Q$	$\tau$	$\tau^2$
WFC/TO	57	.327	.030	.269	.385	11.06*	1892.784*	.213	.045
EE/TO	12	-.337	.200	-.729	.055	-1.68	4468.649*	.687	.472

*Note.* WFC = work–family conflict; EE = employee engagement TO = intent to turnover;  $k$  = number of studies;  $M$  = mean effect size;  $SE_M$  = standard error of mean effect size;  $LL_M$  = lower limit of 95% confidence interval;  $UL_M$  = upper limit of 95% confidence interval;  $Z$  =  $Z$  score;  $Q$  =  $Q$  Statistic;  $\tau$  = square root of estimated  $\tau^2$ ;  $\tau^2$  = estimated amount of total heterogeneity.

\* $p < .001$

*Heterogeneity Results*

<i>Pairing</i>	<i>k</i>	<i>M</i>	<i>Q</i>	$\tau$	$\tau^2$	$I^2$	$H^2$
WFC/TO	57	.327*	1892.784*	.213	.045	96.69	30.20
EE/TO	12	-.337	4468.64*	.687	.472	99.87	760.74

*Note.* WFC = work–family conflict; TO =intent to turnover; EE = employee engagement; *k* = number of studies; *M* = mean effect size; *Q* = *Q* statistic;  $\tau$  = square root of estimated  $\tau^2$ ;  $\tau^2$  = estimated amount of total heterogeneity;  $I^2$  = ratio of total heterogeneity/total variation in effect sizes;  $H^2$  = ratio of total variability/sampling variability.

\**p* < .001.

**Confidence intervals.** Confidence intervals were calculated using the *confint()* command in the R statistics software. Confidence intervals give us insight on moderator effect estimations. According to Borenstein et al. (2009), researchers assign “a value judgment” based on these results. In the case of the findings in Tables 4.11a and 4.11b—using Borenstein et al. (2009) as a guide - the interpretation of the results for tau, tau being the measure for variability between studies - point to work–family conflict/intent to turnover result as “useful” in understanding the true effect variation, and for “harmful” understanding the true effect variation of employee engagement/intent to turnover (p.117). A possible contributor to these figures are both the multiple scales used to measure the variables as well as the low number of studies (*k*), especially in the case of employee engagement/intent to turnover. In other words, the estimates for work–family conflict appear to have a narrow confidence interval making the estimation useful for understanding variance. However, the rather large confidence intervals for employee

engagement/intent to turnover estimations can be interpreted as having low confidence in the solidity of the estimations for variance and true effect size. Table 4.11a and 4.11b contain the confidence intervals per variable pairing and moderator effect.

Table 4.11a

*Work–Family Conflict/Intent to Turnover Confidence Intervals*

Effect	Estimate	95% CI	
		<i>LL</i>	<i>UL</i>
$\tau$	.2127	.1808	.2792
$\tau^2$	.0452	.0327	.0780
$I^2$	96.6886	95.4757	98.0510
$H^2$	30.1991	22.1031	51.3071

*Note.* CI = confidence interval; *UL* = upper limit; *LL* = lower limit;  $\tau$  = square root of estimated  $\tau^2$ ;  $\tau^2$  = estimated amount of total heterogeneity;  $I^2$  = ratio of total heterogeneity/total variation in effect sizes;  $H^2$  = ratio of total variability/sampling variability.

Table 4.11b

*Employee Engagement/Intent to Turnover Confidence Intervals*

Effect	Estimate	95% CI	
		<i>LL</i>	<i>UL</i>
$\tau$	.6871	.4824	1.1716
$\tau^2$	.4721	.2327	1.3726
$I^2$	99.8685	99.7337	99.9547
$H^2$	760.7361	375.4532	2209.8005

*Note.* CI = confidence interval; *UL* = upper limit; *LL* = lower limit;  $\tau$  = square root of estimated  $\tau^2$ ;  $\tau^2$  = estimated amount of total heterogeneity;  $I^2$  = ratio of total heterogeneity/total variation in effect sizes;  $H^2$  = ratio of total variability/sampling variability.

**Mean effect size conversion.** After calculation of a mean effect size by variable pairing, effect sizes were converted back into bi-serial correlations. The total number of participants as well as the number of studies examined is also included. The resulting effects size and correlation for work–family culture to intent to turnover were .327 and .316, respectively. Employee engagement to intent to turnover was -.337 and -.325, respectively. According to Cohen (1992), these effects (as measured by  $r$ ) fall into the medium (.3) and large (.5) for both the work–family conflict and intent to turnover path as well as the employee engagement and intent to turnover path. However, these are just guidelines suggesting that results meeting or exceeding these guidelines could or could not be ultimately meaningful (Ferguson, 2007). Such summary results are of great value as the sample sizes of individual studies have great influence on the statistical result wherein the conversion as well as the mathematical efforts to isolate and account for that variation gives us better insight to the true effect (Thompson, 2002). Table 4.12 contains the conversion of mean effect sizes into correlations by variable pairing.

Table 4.12

*Conversion of Mean Effect Sizes to Correlations*

<i>Effect</i>	<i>M</i>	<i>r</i>	<i>N</i>	<i>k</i>
WFC/TO	.327	.316	39104	57
EE/TO	-.337	-.325	35962	12

*Note.* WFC = work–family conflict; TO = intent to turnover;  $M$  = mean effect size;  $r$  = Pearson correlation; EE = Employee Engagement;  $N$  = number of total participants;  $k$  = Number of Studies.

**Publication Bias**



**Funnel plots.** Funnel plots were created using the statistical software, specifically the *funnel()* command in the “metaphor” package. Funnel plots assist the researcher in determining, by way of plot asymmetry, if a publication bias exists (Viechtbauer, 2010). The funnel plots for the variable pairings are below, in Figure 4.1. This figure represents the pairing work–family conflict/intent to turnover while Figure 4.2 represents employee engagement/intent to turnover. The results for Figure 4.1 suggest that, possibly, there might be some publication bias—specifically smaller, non-significant unpublished studies—that are missing from the bottom of the funnel plot (Borenstein et al., 2009). In the case of employee engagement/intent to turnover, the results suggest that there are many studies missing due to the dispersal toward the top of most of the studies—which was discovered by this meta-analysis—and absence of studies elsewhere. The results overall indicate that there are missing studies—however, the small amount of studies present in analysis (12) makes a judgement on whether there really missing studies speculative. Additionally, the results for work-family conflict/intent to turnover suggest that there is no evidence of bias using the random-effects funnel model.

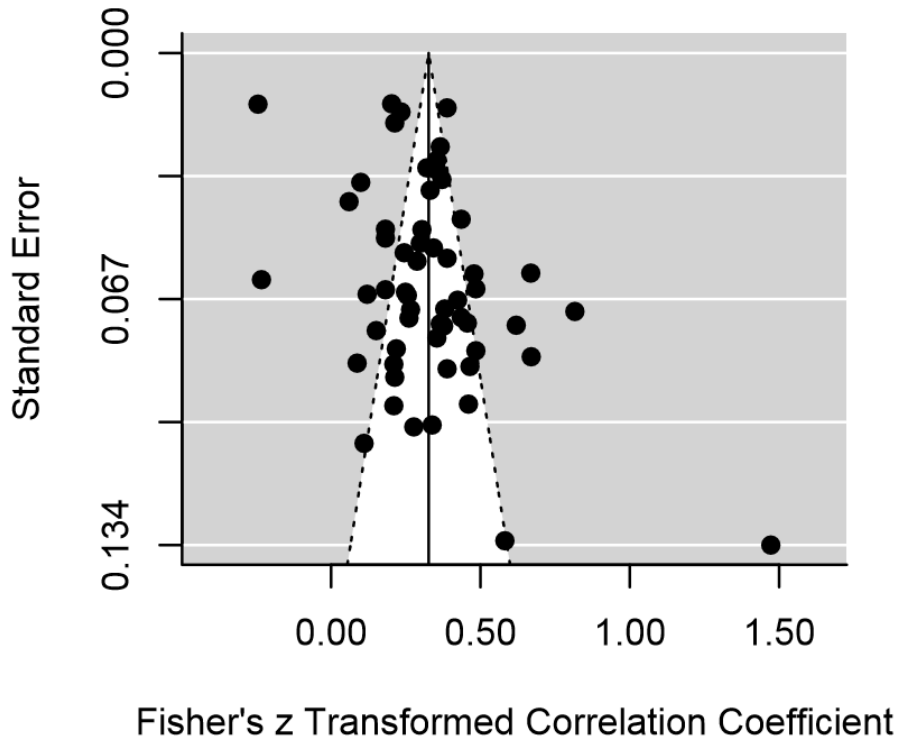


Figure 4.1. Funnel plot for pairing work–family conflict/intent to turnover.

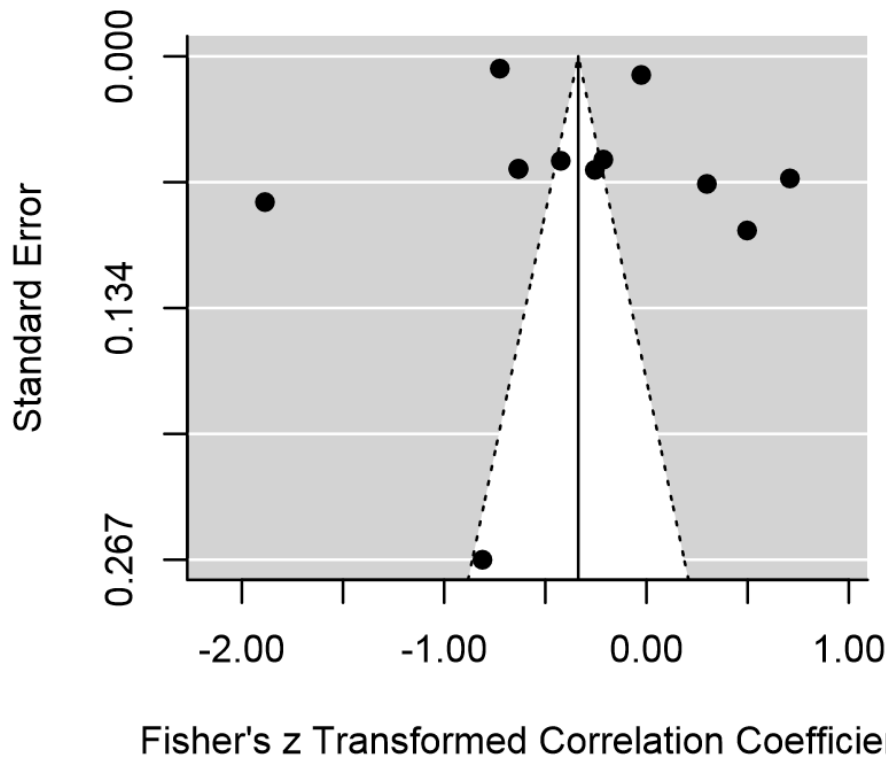


Figure 4.2. Funnel plot for pairing employee engagement/intent to turnover.

**Trim-and-fill results.** Trim-and-fill funnel plots were created to review the impact of missing studies on the overall effect size estimation. The *trimfill()* command in the statistical package R was used to generate the model and plots. Results are presented in Table 4.13. A problem using the trim-and-fill method is that it is impacted by the presence of heterogeneity; any results suggesting publication bias must be viewed with the caveat that the low number of studies, and the presence of large heterogeneity, could indicate a bias where one does not exist (Borenstein et al., 2009). The trim-and-fill results indicate there are 25 missing studies in work–family conflict/intent to turnover pairing and two missing studies for the employee engagement/intent to turnover pairing. The disparity in the number of missing studies between variable pairings could be due to the similar number of participants observed for each variable pairing as reported in Table

4.10. Table 4.14 compares effect sizes and correlations between the model presented in Table 4.11 and the model results in Table 4.12. The drop in the effect size in both variable pairings is worth noting. As stated earlier the trim-and-fill model is based on the assumptions of the model used (Borenstein et al., 2009). The heterogeneity results indicate the presence of a large amount of heterogeneity. Noting the differences in the effect size in table 4.14, and the missing studies in table 4.13, it is likely that the underlying heterogeneity is driving the trim-and-fill model to indicate the presence of missing studies. Additionally, the low amount of studies, especially the employee engagement/intent to turnover pairing, suggest that the trim-and-fill results are being influence by the large heterogeneity amount. Said another way, the increase in sample size from the “missing” studies, allowed for the model to more accurately predict the mean effect size, however, the model would assume that heterogeneity was not present, and therefore the results should be viewed with that caveat in mind. In fact, looking at figures 4.1 and 4.3 we can see that the evidence of bias is due to the fact that the x-axis of the plot has widened to include the “missing” studies.

Table 4.13

*Trim-and-Fill Model Results*

<i>Pairing</i>	<i>k(Org)</i>	<i>k(Mis)</i>	<i>k(Tot)</i>	<i>M</i>	<i>SE<sub>M</sub></i>	<i>LL<sub>M</sub></i>	<i>UL<sub>M</sub></i>	<i>Z</i>	<i>Q</i>
WFC/TO	57	25	82	.124*	.004	.115	.132	28.17*	3508.273*
EE/TO	12	2	14	-.51*	.005	-.521	-.5	-97.2*	4468.64*

*Note.* WFC = work–family conflict; TO = intent to turnover; EE = employee engagement; *k(Org)* = number of studies in this review; *k(Mis)* = number of studies missing per trim and fill; *k(Tot)* = total number of studies on trim and fill model *M* = mean effect size; *SE<sub>M</sub>* = standard error of mean effect size; *LL<sub>M</sub>* = lower limit of 95% confidence interval of mean effect size; *UL<sub>M</sub>* = upper limit of 95% confidence interval of mean effect size; *Z* = Z score; *Q* = Q Statistic.

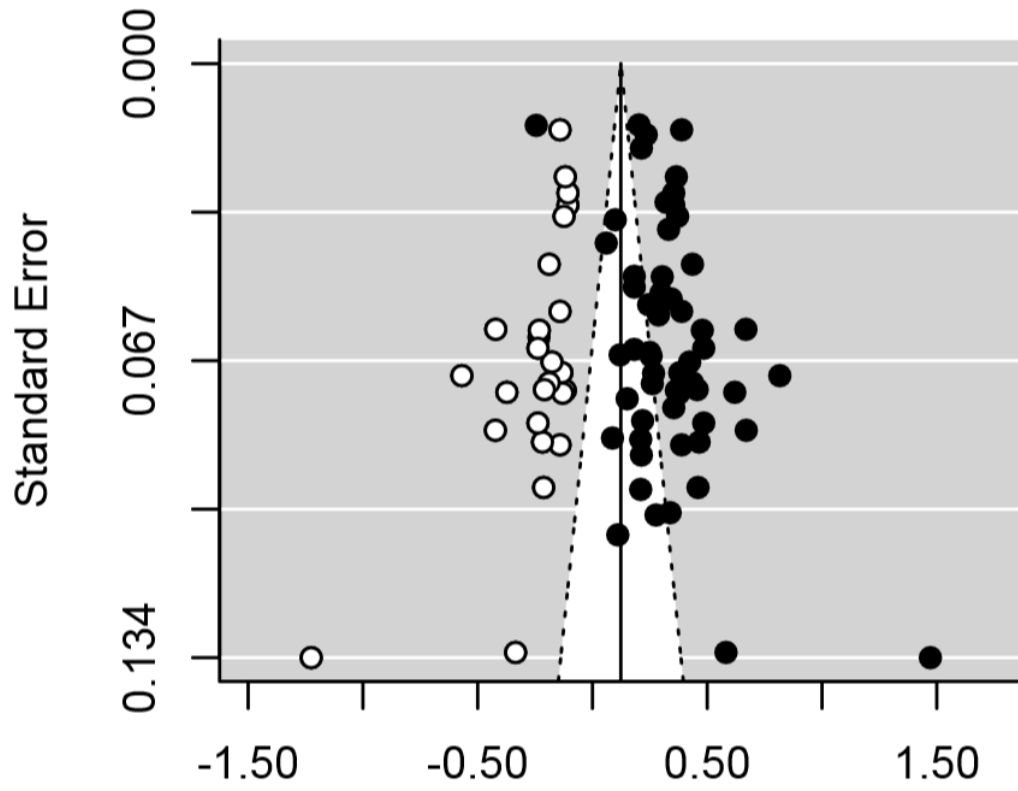
\**p* <.001

Table 4.14

*Mean Effect - Correlation Model Comparison*

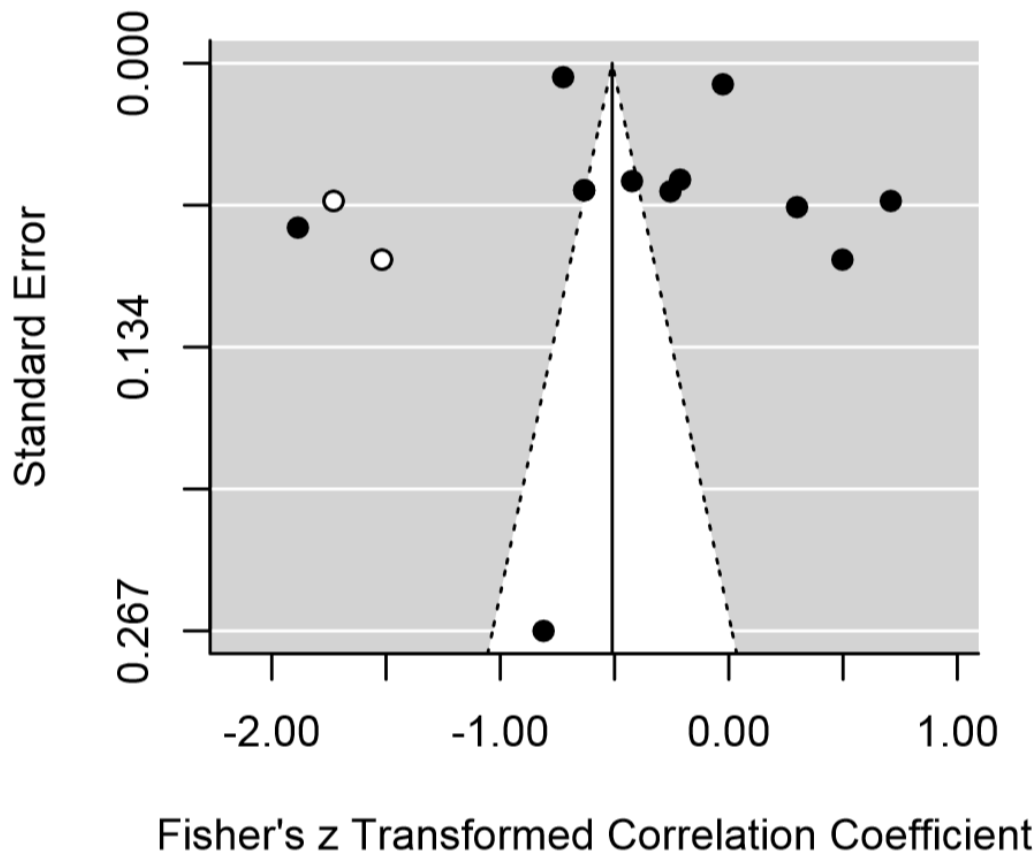
<i>Effect</i>	$M_{RE}$	$M_{TF}$	$r_{RE}$	$r_{TF}$	$k_{RE}$	$k_{TF}$
WFC/TO	.327	.124	.316	.123	57	82
EE/TO	-.337	-.51	-.325	-.47	12	14

*Note.* WFC = work–family conflict; TO = intent to turnover; EE = employee engagement;  $M_{RE}$  = mean effect size random effects model;  $r_{RE}$  = Pearson correlation random effects model;  $k_{RE}$  = number of studies random effects model;  $M_{TR}$  = mean effect size trim and fill model;  $r_{TR}$  = Pearson correlation trim and fill model;  $k_{TR}$  = number of studies trim and fill model.



### Fisher's z Transformed Correlation Coefficient

Figure 4.3. Trim-and-Fill funnel plot for pairing work-family conflict/intent to turnover.



*Figure 4.4.* Trim-and-Fill funnel plot for pairing employee engagement/intent to turnover.

### Summary

This chapter covered search, screening and coding results, descriptive statistics, the results of the random-effects model for the resultant variable pairings, and results for publication bias detection. Chapter five will examine and explain these results, explore study limitations, and draw implications on future research.

## CHAPTER 5

### DISCUSSION

This chapter includes a discussion of the study results from chapter four, and it is broken down into five sections. Section one covers this study's summary. Section two reports a synopsis of the results. Section three details the results pertinent to each research question. Section four reviews the implications for theory, research and practitioners. Finally, section five examines the study's limitations.

#### **Study Summary**

Low levels of employee engagement cost organizations up to \$400 billion dollars annually (Byrne, 2015). Research indicates that higher levels of employee engagement saves organizations from costs such as safety incidents, low performance, recruitment and retention costs, and restructuring costs due to organizational gaps caused by turnover (Fairlie, 2011; Harter et al., 2010; Kumar & Pansari, 2014; Lockwood, 2007). A significant variable impacting organizational costs is an individual's intention to turnover (Hancock et al., 2011; Shuck et al., 2011). Connected, an individual's level of work–family conflict in concert with a supportive organizational culture—to equip an individual to mitigate work–family conflict—have been shown to increase an individual's employee engagement whilst decreasing turnover intentions (Allen & Shanock, 2013, Byron, 2005; Bendarkar & Pandita; Halbesleben et al., 2009).

To address low levels of employee engagement, researchers have created a variety of frameworks and instruments to understand and measure employee engagement (Byrne,



2015). Yet these competing frameworks and measurements have not resulted in a common approach to understanding employee engagement (Purcell, 2014, Saks & Gruman, 2014). However, research suggested that individual antecedents, such as work–family conflict, as well as organizational antecedents, such as supportive organizational culture, could be connected and could have an impact on both employee engagement as well as outcomes such as intent to turnover (Wollard & Shuck, 2011). Research into employee engagement measures suggested the Utrecht Work Engagement Scale (UWES) is the predominant employee engagement measure (Cole et al., 2011), confounding employee engagement research. Understanding employee engagement frameworks is thus diluted by the proliferation of UWES. Furthermore, the interactions of individual and organizational employee engagement antecedents with employee engagement as well as employee engagement outcomes will facilitate researchers and practitioners in understanding the nature and impact that employee engagement has on individuals as well as organizations.

The study investigated the relation between individual and organization employee engagement antecedents, employee engagements, work–family conflict, supportive organizational culture, and intent to turnover. Specifically, using the Wollard and Shuck (2011) employee engagement conceptual model, I explored the relation of individual and organizational antecedents of employee engagement, the effect of those antecedents on employee engagement, and the relation to intent to turnover. Additionally, I synthesized whether or not employee engagement mediated the relationship between employee engagement antecedents and organizational outcomes. Seven research questions were posited to explore these relationships:

Q1: To what extent does work–family conflict and a supportive organizational culture affect each other?

Q2a: To what extent does work–family conflict have an effect on an individual’s level of employee engagement?

Q2b: To what extent does work–family conflict have an effect on an individual’s turnover intentions?

Q3a: To what extent does a supportive organizational culture have an effect on an individual’s level of employee engagement?

Q3b: To what extent does a supportive organizational culture have an effect on an individual’s turnover intentions?

Q4: To what extent does employee engagement have an effect on an individual’s turnover intentions?

Q5: To what extent does employee engagement mediate the effects of work–family conflict and a supportive organizational culture on individual turnover intentions?

A systematic review was conducted to explore the variable pairings under consideration. A screening guide was used to identify relevant studies. A coding guide categorized study features that were further explored using meta-analytic tools. Effect size transformation and analysis of variances were employed to examine variable relations and answer research questions.

The results suggest that the number of studies employing a measure for employee engagement other than the UWES is low. Furthermore, the construct confounding, that is the use of one variable construct measured by a similar yet conceptually different

variable construct (e.g. work engagement and employee engagement), is also found with the variables supportive organizational culture and work–family conflict. Additionally, certain variable pairings yielded zero studies due to variable conflation. Intriguingly, despite the examination of four variables and five pairings, the intent to turnover variable was examined in all studies that passed screening and were coded.

### **Study Synopsis**

This research examined 69 studies. Of the 69, 57 were comparing work–family conflict to intent to turnover, and 12 were covering employee engagement to intent to turnover. These studies contained over 75,000 participants, over 39,000 participants for work–family conflict and intent to turnover, and close to 36,000 for employee engagement to intent to turnover. Studies not included were those covering the other variable pairings of work–family conflict to supportive organizational culture, supportive organizational culture to employee engagement, and finally supportive organizational culture to employee engagement. The lack of studies containing those variable pairings is likely due to instrumentation of both supportive organizational culture as well as employee engagement. In both cases, instruments that actually measure other similar variables were used. In the case of employee engagement, the instrument used was the UWES, which was excluded from consideration. Supportive organizational culture was likewise measured predominantly using the perceived organizational support scale developed by Eisenburger, Huntington, Hutchinson, and Sowa (1986), which I excluded (see Appendix C).

A majority of studies (80%) were derived from peer-reviewed journals, with the remaining (16%) from dissertations or theses. Over half of the studies included used a

cross sectional design methodology while approximately 35% were correlational in nature. Few studies were quasi-experimental, longitudinal, or systematic reviews in their own right. The instruments used for the remaining variables of interest (work–family conflict, employee engagement, and intent to turnover) were found to be in a desirable range. In terms of employee engagement measures, the most used was the Rich et al. (2010) scale, which more than doubled the two next most used scales of May et al. (2004) and Saks (2006).

## **Findings**

This section discusses the findings yielded for each research question. The results imply that, despite the prevalence and proliferation of quantitative research concerning this studies variable pairings, only two research questions were fully answerable, while one is partially answerable.

**Research questions Q1, Q2a, Q3a, and Q3b.** Research questions Q1, Q2a, Q3a, Q3b were found to be unanswerable due to a lack of studies that measured and correlated the variable pairings of work–family conflict to supportive organizational culture, work–family conflict to employee engagement, supportive organizational culture to employee engagement, and, lastly, supportive organization culture to intent to turnover. Screening and coding results suggest that, regarding employee engagement, this likely occurred due to the use of the UWES to measure employee engagement with work–family conflict and supportive organizational culture. Additionally, the results indicate that, similar to employee engagement, variable instrumentation is likely a concern for supportive organizational culture scholars. An examination of the issues arising from each question follows.

**Research question Q1.** The variable pairing work–family conflict and supportive organizational culture produced no studies for consideration. An examination of the screening results indicates that no studies with this variable pairing appeared. A plausible explanation is that, despite these two variables having empirical data available in connection with employee engagement, there has been no research examining the correlational link between these two specific employee engagement antecedents.

**Research question Q2a.** The variable pairing work–family conflict and employee engagement produced three studies for consideration: Amah (2016), Baer et al. (2016), and Halbesleben (2010). The Amah (2016) study is instructive as to the confounding of work engagement and employee engagement that led to these three promising studies’ exclusion from the systematic review. In the abstract for Amah (2016), the author states, “high employee engagement is beneficial to organizations” wherein “highly engaged employees experience high levels of work–family conflict.” The abstract then details the correlational analyses used to examine this linkage. Additionally, the first two keywords from the abstract are “employee engagement, work–family conflict”. This verbiage led to inclusion to be coded and analyzed. Despite this promising lead, the Amah (2016) study failed to be coded due to the use of the UWES as the employee engagement survey instrument. The Amah (2016) literature review covers employee engagement pillars such as Kahn (1990), May et al. (2004), as well as Macey and Schneider (2008). Additionally, the term “employee engagement” is used throughout.

However, a deeper review of literature and framework reveals which type of engagement is actually under examination—that is, links to work engagement are found in the study’s framework. The study uses both the Hobfoll (1989) conservation of

resource model as well as the Bakker and Demerouti (2007) job demand-resources model. An examination of these models reveals roots in work engagement and not employee engagement.

The Hobfoll (1989) model was further explored and expanded by Halbesleben et al. (2009), which examined work engagement and work–family conflict under another name. In the Halbesleben et al (2009) study, the authors explore the linkage between work engagement and work–family conflict, finding that “engagement could also be associated with potentially negative consequences” that seem to signify “that engagement not only has relevance within organizations but also has implications that transcend the workplace and enter into the intersection of work and home.” (p. 1461). Interestingly, the quotes above omit the type of engagement despite the study being about work engagement and the UWES used as the survey instrument. The abstract keywords also omit the type of engagement by simply using the vague keyword “engagement”.

Similarly, the Bakker and Demerouti (2007) study states that using the job demand-resources model will assist organizations in developing strategies that “may decrease the risk for burnout, and increase the likelihood of work engagement and good performance” (p.324). Therefore, the whole basis of the Amah (2016) article exploring employee engagement is built upon a work engagement base, thus leading to construct confounding. Lastly, the survey instrument used to measure employee engagement was the UWES instrument, thus excluding that research from further consideration.

A key finding is the suggestion that quantitative data concerning antecedents and employee engagement—as suggested by Wollard and Shuck (2011)—might not be grounded in employee engagement, but, as the Amah (2016) indicates, grounded in a

work engagement framework. Similarly, the Baer et al. (2016) study employed the UWES survey instrument to measure employee engagement, yet stated in the keywords the simple non-descriptive “engagement”. However, where the Amah (2016) study presented a literature review that contained various frameworks to support employee engagement, the Baer et al. (2016) did not contain a similar in-depth literature review, but the same generic use of “engagement” was found in both abstracts and keywords. Lastly, the Halbesleben study systemically reviewed employee engagement with both intent to turnover and work–family conflict. Nonetheless, Halbesleben included the UWES instrument that made the research results inadmissible.

***Research question Q3a.*** The variable pairing of supportive organizational culture and employee engagement produced one study for consideration: Lo and Nieh (2015). This promising article was excluded due to it missing information on what measures were used for employee engagement and supportive organizational culture. The authors did present a correlation for this variable pairing of 0.427 with 176 respondents. Efforts were made to contact the authors to obtain the required information regarding instrument reliability and source, as this information was not reported. However, it is unlikely that, had this information been received, that inclusion would have swayed the results for this particular variable pairing as this was the only study under consideration. Additionally, the section reviewing literature and defining the variables begins “the research on Perceived Organizational Support,” which suggested that the instrument used to measure supportive organizational culture would exclude Lo and Nieh (2015) from this review (p. 340). That researchers have explored this pairing is reassuring that the links posited by

Wollard and Shuck are being explored, albeit in Taiwan within the hospitality industry (Lo and Nieh, 2015).

**Research Question Q3b.** The variable pairing of supportive organizational culture and intent to turnover produced two studies for consideration: Dupre and Day (2007) and Wang et al. (2016). Both studies, however, were excluded for supportive organizational culture measures and not for employee engagement measures, but the reasons for exclusion are similar and warrant discussion. In Dupre and Day (2007), the authors examine supportive management practices impact on turnover intentions within a military organization. An abstract examination reveals that, similar to employee engagement abstracts discussed above that masked work engagement under the cloak of “engagement”, the same masking might occur with supportive organizational culture frameworks and measures. For example, the title implies that the study will examine supportive management, yet the abstract breaks down supportive management into a host of “factors” (i.e., different types of support: supervisor, organization, and mention of work–life balance). Similar to Amah (2016), the authors create a supportive management foundation with a literature review. The third paragraph on supportive management reveals that the authors are turning toward perceived organizational support as a base to explore and explain a supportive organizational culture. In fact, this study uses the Eisenberger et al. (1986) perceived organizational support survey instrument, thus leading to the Dupre and Day (2007) being excluded from this examination. However, similar to the discussion above regarding work employee engagement confounding, an examination of Dupre and Day (2007) suggested that supportive organizational culture could face a similar issue.



Wang et al. (2016) was initially considered and later rejected due the variable pairing of employee engagement (measured by the UWES) and work–family conflict. However, the Wang et al. (2016) study also looked at what was called “perceived wellness climate”. Further examination revealed that this variable was measured by the family-supportive organizational perceptions by Allen (2001), a measure excluded from this analysis. Interestingly, this measure was used to measure, correlate, and explore “perceived wellness climate” and not a variable more focused on organizational culture, such as perceived organizational support or a supportive organizational culture. The translation of the climate variable could also reflect the limitations of translation software because the Wang et al. (2016) article was published in *The Journal of the Korean Contents Association* and in the Korean language.

**Research question Q2b.** The coding results for the resultant variable pairs of work–family conflict to turnover intentions as well as employee engagement to turnover intentions suggest that the antecedent variables (work–family conflict and employee engagement) have a significant effect on the outcome variable of turnover intentions. Findings from Q2b regarding the extent of impact of work–family conflict to an individual’s turnover intention (reported as  $M = .327$ ,  $r = .316$ ) is positive, but it also has a small to medium overall effect—as suggested by Cohen (1992)—being right in the middle of the range. What this suggests is that work–family conflict could influence an individual's desire to depart their organization—however, it is not a large or driving reason someone would choose to voluntarily turnover, and, likely, there are other factors that ultimately influence that decision.

**Research question Q4.** Interestingly, the impact of employee engagement to an individual's turnover (reported as  $M = -.337$ ,  $r = -.325$ ) is similar to the in size to work-family conflict and turnover intentions being in the middle of the small and medium overall effect range provided by Cohen (1992), however the direction of the relationship is negative. This finding suggests that, as similar to the *work-family conflict to intent to turnover* relationship, an individual's level of employee engagement could influence an individual's intent to turnover. Put another way, if an individual has a low level of employee engagement, the low level of employee engagement will influence their turnover intention. In practice, this could mean that a low level of employee engagement may not be the single reason someone decides to leave an organization and most likely would not be the main reason. Similar to work-family conflict and intent to turnover pairing the combination of these variables (high work-work family conflict, low support from the organization, low levels of employee engagement) could together strongly influence intent to turnover.

However, caution must be taken with interpreting the overall results. This pairing did not reach the threshold for power described in chapter 3, i.e. at least 40 studies. The number of studies included for this pairing was only  $k = 12$ . Although the overall sample size for this variable pairing is  $N = 35,962$  is in close to overall sample size in the number of participants derived from work-family conflict and intent to turnover,  $N = 39,104$ , the number of studies is almost four times as great: WFC/TO  $k = 57$ . A review of underlying data indicates that two studies: Halliday et al. (2017) and Liss-Levinson et al. (2015) are responsible for 33, 685 ( $k = 23,439$  &  $k = 10,246$  respectively) or nearly 94% of the total sample population. Here the tau statistic helps with interpretation and is the real story.

The reported tau for this pairing is .687. This figure is over four times as great as the same value reported for work-family conflict and intent to turnover (tau = .045). This statistic indicates that, in concert with confidence intervals, is that approximate range of true effects is between .48 and 1.17, a distribution that using Borenstein et al. (2009) as guide could be classified as harmful. Said another way I cannot substantively say with confidence that the overall correlation  $r = -.325$  (as transformed from the overall mean effect of  $M = -.337$ ), is an accurate figure to make generalized statements about the population. Given the number of different measures used for employee engagement, along with the large tau, large tau confidence intervals, and the large  $I^2$ , a likely source of variance is amongst the differing measures used for employee engagement and the low amount of studies under examination.

Lastly, the low number of studies, as mentioned above, indicates that this variable pairing has a low power. A review of trim and fill results would suggest that there are only two studies missing, bringing the total number of studies only to fourteen. A plausible reason for the low number of missing studies leads back to the influence of Halliday et al. (2017) and Liss-Levinson et al. (2015). However, the results for this pairing give us two points for further exploration and discussion. Firstly, the resultant correlation/mean effect size ( $r = -.325$  and  $M = -.337$ ), provide a good starting point for discussions relating to this variable pairing with both employee engagement and as a comparison to work engagement. Secondly, and the more interesting finding, is the large amount of heterogeneity found with this pairing. Future research into employee engagement should look more deeply into the measures of employee engagement to understand and explain such large variance.

**Research question Q5.** The interpretation described in the previous paragraph provides partial insight to answer the portion of Q5 that seeks to understand the mediation impact of employee engagement, however there is no quantitative data present to support the conclusions that follow. The conclusions drawn from the interpretations of the previous questions are only speculative in nature and are included to provide scholars with some thoughts on the possible outcomes in future studies of employee engagement without the UWES and ideas on possible linkages that include the UWES. Given that I do not have any studies that correlated work–family conflict to employee engagement, I can only speculate based on both of those variables’ relationship to intent to turnover. What those results suggest is that, if a small to medium effect size existed between work–family conflict and employee engagement, that employee engagement—though impacted by work–family conflict—could possibly, in theory, reduce the effect upon overall turnover intentions through higher employee engagement. In other words, although there is an impact, other organizational and individual antecedents—as identified by Wollard and Shuck (2011)—might actually increase an individual’s level of engagement and thus mitigate the impact of work–family conflict on intent to turnover. Without studies examining the work–family conflict to employee engagement pairing that do not use the UWES, we can only venture thoughts on that plausible impact. However, a large effect size in the range of .7 or greater, if present and if gathered from a significant number of studies, at least 50 to 75, such a finding might suggest that employee engagement does mitigate the impact of work–family conflict on intent to turnover. Though such a finding would also have to look at the amount of variance underlying the effect size. If the result of future meta-analysis of employee engagement as mediator indicates a similar amount

of variance, as measured by tau and  $I^2$ , found in this study, further analysis using meta-regression or subgroup analysis should be performed to better understand the source of the variation (Borenstein et al., 2009).

### **Theory Implications**

The findings suggest that the antecedental links suggested by Wollard and Shuck (2011) do somewhat exist. Additionally, the construct confounding between work engagement and employee engagement also exists in work-family conflict (sometimes theorized and measured as work-life balance) and supportive organizational culture (sometimes theorized and measured as perceived organization support). Previous employee engagement systematic reviews/meta-analysis included most, if not all, the available measures offered at the time of publishing—or in the case of Cole et al. (2011) and Christian et al. (2011), chose to specifically focus on the UWES. No previous research systematically examined employee engagement specifically excluding the UWES instrument. Additionally, no research examined the individual/organizational antecedent–employee engagement outcome linkage proposed by Wollard and Shuck (2011). The results imply that linkages are both present as well as of a significant size to influence each other. HRD researchers and practitioners can benefit from these findings in two ways. First, when addressing organizational performance and engagement, HRD researchers as well as practitioners can narrow the scope of engagement interventions by focusing on specific antecedent and outcome pairings as part of an overall engagement improvement strategy. For example, organizational leaders can focus on reducing turnover intentions by actively working to lower the amount of work–family conflict an employee experiences. The results would demonstrate to the employer as well as the

employee that the tangible connections between engagement, engagement antecedents, and outcomes. Secondly, the availability of other measures besides the UWES—with the additional research showing just how deep the confounding between employee engagement and work engagement runs—should encourage not only the use of other employee engagement instruments, but also foster the development of an instrument that can replace the UWES as the standard employee engagement instrument.

The findings reveal the importance of terms as well as how those terms are used and interpreted. The screening guide used abstracts and keywords to determine whether or not a study met the inclusion criteria. Previous employee engagement research illuminated the confounding and interchangeability of the terms employee engagement and work engagement. This research confirmed the employee/work engagement confounding in addition to the use of job engagement (e.g., see Rich et al., 2010; Kelley, 2012) as well as a hybrid employee–work engagement to describe engagement that is measured by the UWES. A significant finding was that this type of interchangeability also occurs in employee engagement antecedent variables. For example, a study’s abstract, title, and keyword might imply that a study is the examination of work–family conflict, but only to measure and discuss work–life balance. Additionally, supportive organizational culture study turns out to be theoretically grounded and measured as perceived organization support (e.g., see Dupre & Day, 2007). Researchers can address this by looking at the individual and organization variables provided by Wollard and Shuck (2011), and then looking for commonality in naming conventions in order to identify potential pairings that might have intertwined theoretical groundings.

Finally, the results indicate the need for common and agreed upon frameworks and measures. This examination purposely excluded the UWES, and this exclusion reduced the number of studies under consideration, which revealed that the number of studies using another engagement instrument is many and varied. Without a current agreed upon employee engagement instrument, results indicate that a likely candidate is the Rich et al. (2010) job engagement instrument. This measure is theoretically grounded in engagement as conceptualized by Kahn (1990, 1992)—however, as the name implies, the measure is “job” and not “employee” engagement. That said, given the preponderance of theory on employee engagement is based on Kahn, this instrument—in the absence of an agreed upon instrument within the HRD field—is a good candidate for acceptance and use, which is the reason the Rich et al. (2010) instrument was included. The Byron (2005) meta-analysis of work–family conflict provides insight into the path that employee engagement measurements should *not* follow, as there are two to three commonly used instruments, and many of said instruments are used only once or twice, never to be used again. What is needed is not only more studies that measure variable pairing, but more studies using an agreed upon employee engagement instrument that is used as much for employee engagement as the UWES is used for both work and employee engagement.

### **Research Implications**

Further research needs to be conducted on the variable pairings between individual and organization antecedent variables. Research should not only focus on the “natural seeming” links, but also between variables that may not at first glance have any interaction such as value congruence (individual) and level of task challenge (organizational). An examination might reveal a linkage not thought of previously, or it

could confirm that no linkage exists. Either way, this line of research will further define and expand employee engagement antecedents as well as further refine employee engagement as a whole.

Additionally, where there is no verification of empirical evidence for an antecedental pairing—therefore, future research could be conducted focusing on developing employee engagement antecedents, empirically, with a path toward a future systematic review. For example, researchers could identify emotional fit (individual) with feedback (organizational), exploring, defining, and measuring them individually and using correlational analysis tied to employee engagement as well as an engagement outcome. Once research has been conducted across a spectrum of settings (e.g., sectors, industries, regions), this research could be meta-analyzed to determine overall effects. The number of potential pairings allows for the creation of a vast research agenda. These studies will give organizations as well as individuals an understanding of which variable pairings have the greatest impact on employee engagement and engagement outcomes, allowing once again for the creation of targeted engagement interventions to improve organizational and individual efficiencies.

Furthermore, the development and employment of an agreed upon employee engagement measure will have benefits across the academic and practitioner communities. Academic communities will benefit from a single source for engagement measures. The benefit will be results based on a single instrument, thus improving reliability (specifically the reliability derived from a single instrument), and validity as the results will come from a single instrument source. Additionally the influence of the UWES could be eliminated. Shuck, Adelson, & Reio (2017) have recently created such



an instrument, the Employee Engagement Scale (EES) based on a proposed unifying framework that could gain community alignment and use (Shuck, Kobena, Zigarmi, & Nimon, 2017). Practitioner communities will benefit from the additional research that an agreed upon measure, such as the EES, would produce because it would provide practitioners with a better understanding of employee engagement. This understanding will assist in the creation of impactful employee engagement strategies to successfully impact the organizational bottom line. A final additional benefit will be comparing the future single measure employee engagement results with existing literature on work engagement. This comparison will assist researchers in defining and understanding the differences between work engagement and employee engagement, and, thus, help to unravel future construct confounding.

### **Practitioner Implications**

HRD practitioners tasked with increasing employee engagement levels now have a starting point when it comes to understanding the various factors that influence employee engagement and employee engagement outcomes. This analysis offers a starting point in using the antecedent → employee engagement → outcome model posited by Wollard and Shuck (2011). Additionally, the results indicate significant effect sizes for the variable pairings under consideration that can be used as a guide when crafting employee engagement strategies. Further, the results validate that, despite a reported plethora of employee engagement research, when taking into account the proliferation of the UWES instrument, the remaining employee engagement landscape is not as full as previously reported (Saks & Gruman, 2014). Armed with the knowledge provided here, practitioners can review variables within existing empirical data with a discerning eye to

data obtained from using the UWES instrument. Therefore, any employee engagement strategies developed will be founded upon frameworks rooted in employee engagement and *not* work engagement, thus facilitating the creation of sound interventions.

Taken further, HRD practitioners can serve as trainers and educators to middle, upper, and executive management as well as leadership by clearly defining employee engagement. Additionally, HRD practitioners can educate on the influence of employee engagement antecedents pertaining to both employee engagement and employee engagement outcomes. The understanding of the Wollard and Shuck (2011) model will facilitate a multi-level and multi-pronged approach to identify, address, and increase employee engagement as well as positive employee engagement outcomes (e.g., organizational citizenship behaviors) whilst mitigating and decreasing negative impacting antecedents and outcomes (e.g., work–family conflict, turnover intentions). This understanding will enable leaders to create and support engagement efforts within the various departments and teams under their purview (Li & Liao, 2014).

Finally, this inquiry will assist practitioners in understanding the conception as well as influences, and assist in the creation of engagement interventions and strategies (Shuck & Rose, 2013). Practitioners can also expand their role as employee engagement educators by creating employee training to facilitate employee engagement strategies and comprehension at the employee level (Shuck & Rose, 2013). This facilitation could create an open avenue for employees to provide additional feedback such as the impact of strategies on an individual's passion and well being (Zigarmi & Nimon, 2011). Evidence indicates that previous research into the natural seeming links between organizational and individual antecedents exists, but it is influenced by the use of the UWES instrument.

Practitioners can assess natural seeming links as well as existing research to craft training, strategies, and specific interventions that not only illuminate and develop leadership employee engagement, but also create an avenue for employee feedback for providing the practitioner with critical real-time data on intervention and strategy effectiveness.

### **Study Limitations**

Study limitations are addressed below. Firstly, only examined a specific set of variable pairings. The antecedental pairing (work–family conflict/supportive organizational culture) and outcome were selected based upon construct longevity, antecedental relation, antecedent to outcome relation, and relation to employee engagement (Andrew & Sofian, 2014; Bedarkar & Pandita, 2014, Byron, 2005, Han, 2012; Sok et al., 2014, Timms et al., 2015). While previous research identified linkage between variables, future research should take into consideration that individual and organizational antecedents could be rooted in the same framework and measurement as the pairing of perceived organization support and supportive organization culture (e.g., see Dupre & Day, 2007).

The second limitation is the inclusion of multiple measures for the variable under examination. The use of multiple instruments to systematically review engagement suffers from the conundrum faced when examining results including the UWES: Do these measures really measure employee engagement? For the purposes of this study, the answer is yes and, from here, suggested future research should drive the creation of a singular accepted employee engagement framework and measure. The findings suggest that the use of multiple measures for work–family conflict is in line with previous

findings in Byron (2005) of the most widely used instruments (e.g., Frome et al., 1992a; Netemeyer et al., 1996). This meta-analysis underscores the need not only for an accepted employee engagement measure, but the development of single source measures for other employee engagement related variables (Byrne, 2015).

Lastly, the screening guide allowed for the exclusion of studies not in the English language. This exclusion was with understanding, as stated by Borenstein et al, (2009), that “English-language databases and journals are likely to be searched” (p.279-80) thus reducing the number of possible foreign-language studies being returned. A meta-analysis SME was consulted on the possibility of language bias, and after consultation the exclusion was kept in place. Despite the use of English language databases there were foreign language studies that appeared in the search results, though small in number, lessening a potential impact (Borenstein et al., 2009). For example, a record was returned with only title, author, and language information indicating that the record under review was written in Mandarin Chinese; this record was discarded. Most often the case occurred that a record would include variables of interest in title or abstract, yet not contain any information about language, other than a deduction based on the journal title, that the record under review was in a foreign language. These records were included in the coding process. Many foreign language studies included in this review made it through the screening process this way.

Once identified as a study reported in a foreign language it was decided that to reduce potential language bias, every effort and use of technology (i.e., Google Translate) should be made to capture and incorporate those results. A meta-analysis SME was consulted and the decision was made to include any results that could be obtained using

methods described above. The *Campbell Policies and Guidelines, Series No.1* support this action, advising researchers to minimize, where possible, the introduction of bias. Additionally, specific to the language exclusion, researchers should ensure that any exclusion does not disqualify a significant portion of the research results. (The Campbell Collaboration, 2019) The results signify a body of research and researchers into employee engagement as well as employee engagement outcomes and antecedents, particularly within the Korean peninsula. Undoubtedly, research into employee engagement is a global effort and certainly not limited to the North American or European spheres. Future researchers should be aware of this body of research and anticipate that other regions (such as the Middle East and South America), could begin to build a body of research that is not reported in the English language.

I conclude with a parting insight on both language and the development of constructs within social science. Author and amateur philologist Bill Bryson (1990) provides two insights that illuminate the language problem discussed in the preceding paragraphs and the debate on the work engagement – employee engagement confound. The first insight is there is a variety of words in the English language that mean the same general thing yet there is a subtle difference between the words in question. The example is the difference between a house and a home. Bryson notes that this distinction is both present and absent in other languages. For example romance languages such as French does not have the house/home distinction; In some Eskimo languages there are a multitude of words for snow all of which mean snow, however have subtler meanings to describe the exact kind of snow. This first insight ties into the second insight Bryson (1990) makes: English is becoming the dominate language in commerce, science, and

other aspects of everyday life: the modern *lingua franca*. A related point is that academic English is almost a language of its own. This suggests that the number of foreign language studies might decline over the years. However, studies will still be published in other languages. The question arises: will the distinction (academically as well as linguistically) we have for the various types of engagement discussed in this analysis (job, work, employee) carry over into another language? Is there such a distinction? This question leads us back, in a way, to the focus of this study: what is the impact of employee engagement and not work engagement. As we seek to define and examine constructs care should be taken in creating clear, parsimonious and perhaps easily translatable definitions and measures to ensure what is being sought after is truly measured.

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Appendix A

**Screening Guide**

<b>Report Characteristics</b>	
Identification Number	
Page Range	
First Author Last Name	
All Authors Name	
Publication Year	
Publication Type	0 = Journal 1 = Government/Agency Report 2 = Dissertation/Thesis 3 = Conference presentation 4 = Other 5 = Unknown
<b>Inclusion Criteria</b>	
I1: Is the study available in English  IF NO STOP	0 = No 1 = Yes 99 = Unsure/Cant tell
I2: Does the study measure at least on path (two variables)  IF NO STOP	0 = No 1 = Yes 99 = Unsure/Cant tell
I3: Does the study use a measure for employee engagement other than the UWES?  IF NO goto I3a	0 = No 1 = Yes 98 = Study does not measure EE 99 = Unsure/Cant tell
I3a: Does the UWES study contain at least two other variables covered in this study?  IF NO STOP	0 = No 1 = Yes 98 = Study does not measure EE 99 = Unsure/Cant tell
I4: Is the study quantitative?  IF NO STOP	0 = No 1 = Yes 99 = Unsure/Cant tell
I5: Does the study report correlations?  IF NO STOP	0 = No 1 = Yes 99 = Unsure/Cant tell
I6: Is this a study we want?  IF NO STOP	0 = No 1 = Yes 99 = Unsure/Cant tell



Appendix B

**Coding Guide**

Report Characteristics	
Identification Number	
Page Range	
First Author Last Name	
All Authors Name	
Publication Year	
Publication Type	0 = Journal 1 = Government/Agency Report 2 = Dissertation/Thesis 3 = Conference presentation 4 = Other 99 = Unknown
Design Characteristics	
D1: Research design type	0 = Experiment 1 = Quasi-experiment 2 = Correlational 3 = Cross-sectional 4 = Longitudinal 5 = Meta-Analytic/Systematic Review 6 = Other 99 = Unknown
D2: Correlation matrix reported?	0 = No 1 = Yes 99 = Unsure/Cant tell
D3: Variables Reported  Code all pairings	1 = WFC/SOC 2 = WFC/EE 3 = WFC/TO 4 = SOC/EE 5 = SOC/TO 6 = EE/TO 0 = Does not measure two variables of interest (STOP)
D4: Employee Engagement measure used	1 = May et al. (2004) 2 = Saks (2006) 3 = Britt (1999) 4 = Rich et al. (2010) 5 = Rothbard (2001) 6 = Soane et al. (2012) 7 = Strumph et al. (2013) 8 = Propietary, Harter et al. (2002);(Gallup Q12)

	9 = Proprietary, Other 10 = Other 98 = UWES (STOP) 99 = Unknown 0 = Employee Engagement not measured
Effect Size Information	
E1: Correlation Effect Size	
E2: Which pair of variables does this correlation represent	1 = WFC/SOC 2 = WFC/EE 3 = WFC/TO 4 = SOC/EE 5 = SOC/TO 6 = EE/TO
E3: Direction of Effect size	0 = zero 1 = positive 2 = negative 3 = reported positive/no ES 4 = reported positive/no ES 5 = no report/no ES
E4: Effect size report type	1 = correlation 2 = Beta 3 = covariance 4 = odd-ratio
E5: Is Effect Size statistically significant	0 = no 1 = Yes 99 = cant tell/not reported
E6: Degrees of Freedom reported in study	
E7: Effect size source	0 = as reported 1 = calculated for meta-analysis
Measures for Effect Size	
M1: Was reliability reported for test instruments	0 = No 1 = Yes 99 = Cant tell
M2: What was the variable and value of the reliability if reported: Cronbach's $\alpha$	

## Appendix C

### **Instrument Inclusion and Exclusion Criteria**

Table C-1 contains the distinction specific inclusion and exclusion parameters on which measures are included in this meta-analysis. Specific attention was paid to what a measure purports to measure, and what is actually measured. For employee engagement, the Shuck and Wollard (2011) definition provides a base for operationalization of employee engagement as: an individual's choice to invest discretionary and personal resources to include one's cognitive, emotional and behavioral energies of one's true and preferred self in the completion of organizational tasks within the organizational setting (Kahn, 1990; Shuck & Wollard, 2010). The focus of this operationalization is the individual and the individual's choice in investing resources. By this operationalization measure included are May, Gilson, & Harter (2004); Saks (2006) job engagement scale, and the job engagement scale of Rich, Lepine, & Crawford (2010). The focus of these measures is the individual and the individual choosing to engage resources of a cognitive, behavioral, and emotional nature. Measures excluded are the Utrecht Work Engagement Scale of Maslach, Schaufeli, & Leiter (2001). This scale operationalizes employee engagement as vigor, absorption and dedication and has been suggested to be empirically redundant with the Maslach Burnout Inventory (Christian et al., 2012). Saks (2006) organization engagement scale is excluded due to the focus of this scale on the organization and not the individual perspective. Soane et al. (2012) ISA social engagement scale is excluded due to the focus on the employee's interactions with other employees as the base for engagement. Lastly the Harter, Schmidt & Hayes (2002) satisfaction-engagement measure is excluded due to the focus on an employee's

satisfaction with his employment and not the investment of resources in pursuit of organizational goals.

Work-Family Conflict is operationally defined as a conflict between work roles interfering with family roles (work interfering with family (WIF)) or a conflict between family roles interfering with work roles and responsibilities (family interfering with work (FIW)) (Frome, Russell & Cooper, 1992a). The measures included above reflect the confliction of work and family roles with one another. For example: Gutek, Searle, & Klepa (1991) Sample item: WIF: On the job I have so much work to do that it takes away from my personal interests; FIW: My personal demands are so great that it takes away from my work demonstrates this conflict as operationalized by Frome et al. (1992). Excluded from the work family conflict measures was the work family balance measure of Thompson, Beauvais & Lyness, 1999 as this measure focuses on the balance an individual strives to maintain and not the conflict inherent in that balance.

A supportive organizational culture is defined as a culture that “represents and protects its core values by trying to use the flexibility of operational procedures to meet the employees’ needs, maintaining human relations and showing concern for people” (Sok, Bloome, & Tromp, 2014, p. 460). Operationally a supportive organizational culture is an organization culture that proactively engages the employee population through policies and procedures designed to assist the employee process events that could interfere with the performance of the employees roles and responsibilities. Measures included are those measures which focus on the organizations actions through policies and procedures to support the employee in mitigating events that would hinder the employees ability to focus on performing tasks towards organizational goals. For

example: As measured by Bond (2004) Work-life culture: sample item: It is not difficult to get time off during work or take care of personal or family matters. Measures excluded are all measures that concentrate on an employee's perception of support, such as any scale using Eisenburger, Huntington, Hutchinson, & Sowa (1986) perceived organization support scale as a base for measuring supportive organization culture. The Eisenburger et al. (1986) scale focuses on individuals perceptions and not the organization actual efforts.

Turnover intentions are “a conscious and deliberate desire to leave the organization within the near future” (Carmeli & Weisberg, 2006, p. 193). These intentions are operationally defined as a stated desire or belief that an individual will leave their current place of employment for another employer or opportunity at some future point. Measures included outline this desired state such as Protass (2013) sample item: “Taking everything into consideration, how likely is it that you will make a genuine effort to find a new job within the next year?” This question centers around and individuals likely intention but not the actual action of turnover. Excluded measures are actual turnover rates as these measure the action after the intention.

Table C-1

*Instrument Inclusion and Exclusion Criteria*

Variable	Definition	Operational Definition	What it is	What it is not
Employee engagement	“an individual employee’s cognitive, emotional, and behavioral state directed toward desired organizational outcomes.” Shuck & Wollard, 2010, p.103	An individual’s choice to invest discretionary and personal resources to include ones cognitive, emotional and behavioral energies of one’s true and preferred self in the completion of organizational tasks within the organizational setting (Kahn, 1990; Shuck & Wollard, 2010)	<p>As measured by May, Gilson, &amp; Harter (2004) Sample items: Cognitive engagement – Time passes quickly when I perform my job; Emotional engagement: I get excited when I perform well on my job; Physical engagement: I stay until the job is done.</p> <p>As measured by Saks (2006) job engagement scale: Sample item: I am highly engaged in this job;</p> <p>Physical, Emotional, and Cognitive engagement as measured by Rich, Lepine, &amp; Crawford (2010) sample items: I devote a lot of energy to my job; I am excited about my job; At work, I concentrate on my job</p>	<p>As measured by Saks (2006) organization engagement scale: Sample item: Being a member of this organization make me come “alive”;</p> <p>As measured by the Utrecht Work Engagement Scale Maslach, Schaufeli, &amp; Leiter (2001): sample item: Vigor: When I get up in the morning, I feel like going to work; Dedication: I am enthusiastic about my job; Absorption: When I am working I forget everything else around me.</p> <p>As measured by Shaufeli, Salanova, Gonzalez-Roma &amp; Bakker (2002): Sample items: Vigor: At my work, I am bursting with energy, Dedication: My job inspires me; Absorption: I am proud of the work that I do</p> <p>As measured by the Soane, Truss, Alfes, Shantz, Rees, &amp; Gatenby (2012)</p>

Work Family  
Conflict

“a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation

A conflict between work roles interfering with family roles (work interfering with family (WIF)) or a conflict between family roles interfering with work roles and responsibilities (family interfering with work (FIW)); Frome, Russell & Cooper (1992a)

As measured by Frome, Russell & Cooper (1992a): Sample item: work-family conflict – How often does your job or career interfere with your responsibilities at home, such as yard work, cooking, cleaning, repairs, shopping, paying bills or child care; family-work conflict – How often does your homelife interfere with your responsibilities at work such as getting to work on time, accomplishing daily tasks, or working overtime?

ISA social engagement scale: sample item: I share the same work goals as my colleagues; Intellectual engagement scale: I pay a lot of attention to my work; Affective engagement scale: I am enthusiastic in my work

As measured by Harter, Schmidt & Hayes (2002) satisfaction-engagement framework using the Gallup Workplace Audit: Sample item: At work, my opinions seem to count, At work, I have the opportunity to do what I do best every day

As measured by Thompson, Beauvais & Lyness, 1999 (work family culture) sample item: In this organization employees can easily balance their work and family lives.

in the work (family) role is made more difficult by virtue of participation in the family (work) role” (Greenhaus & Beutell, 1985, p. 77).

As measured by Netemeyer, Boles, & McMurrian (1996) sample item: Work-family conflict: The demands of my work interfere with my home and family life; family-work conflict: the demands of my family or spouse/partner interfere with work-related activities

As measured by Gutek, Searle, & Klepa (1991) Sample item: WIF: On the job I have so much work to do that it takes away from my personal interests; FIW: My personal demands are so great that it takes away from my work

As measured by Carlson, Kacmar & Williams (2000) sample item: WIF: My work keeps me from my family activities more then I would like; FIW: The time I spend on family activities often interfere with my work responsibilities

Supportive Organization Culture

A culture that “represents and protects its

An organization culture that proactively engages the employee

As measured by Bond (2004) Work-life culture: sample item: It is not difficult to get time off during work

Perceived organization support as measured by Saks (2006) sample item: My organization really cares about my



core values by trying to use the flexibility of operational procedures to meet the employees' needs, maintaining human relations and showing concern for people" (Sok, Bloome, & Tromp, 2014, p. 460).

population through policies and procedures designed to assist the employee process events that could interfere with the performance of the employees roles and responsibilities

or take care of personal or family matters

Family supportive organizational culture as measured by Allard, Hass, & Hwang (2011) sample item: "The top managers care about how men's jobs affect family life"

well-being, My organization cares about my opinions

Perceived organizational support as measured by Eisenburger, Huntington, Hutchinson, & Sowa (1986)

Organizational culture as assessed by Quinn and Rihrbaugh (1983) organizational culture assessment instrument (OCAI)

Innovation supportive culture as measured by Chandler, Keller, & Lyon (2000)

Turnover  
Intentions

“a conscious and deliberate desire to leave the organization within the near future” (Carmeli & Weisberg, 2006, p. 193).

a stated desire or belief that an individual will leave their current place of employment for another employer or opportunity at some future point.

As measured by Van Veldhoven & Meijman (1994): Sample Item: I intend to change jobs during the next year; As measured by Saks (2006) sample item: I frequently think about quitting my job; As measured by Boroff & Lewin (1997) (from Soane et al 2012); Sample item: I am seriously considering quitting my current employer for an alternate employer

Actual turnover rates

Turnover likelihood as measured by Protass (2013) sample item  
“Taking everything into consideration, how likely is it that you will make a genuine effort to find a new job within the next year?”

## Appendix D

### **Random Effects Table**

The table below is a continuation of table 4.9. Table D-1 contains more descriptive statistics of what the studies looked like (i.e. reliability, measurements used, sample, study weighting). The purpose of this table is to give the reader a better understanding of the underlying data that produced the effect sizes and variance reported in chapter 4 and discussed in chapter 5. As can be seen: the similar study weighting as a function of sample size, and the various measures used to observe work-family conflict, employee engagement, and intention to turnover, contributed to the high levels of heterogeneity reported. Additionally, the low number of studies, particularly employee engagement/intention to turnover, contributed to high heterogeneity. The trim and fill method is formulated on the assumptions of the fixed effect model (Borenstein et al., 2009). As such when there is a high level of heterogeneity, which small samples tend to estimate imprecisely (Veichtbauer, 1998), and lead to similar weighting amongst the studies under review.

Table D-1

*Work Family Conflict/Intention to Turnover Study Information*

Author(s)/Year	<i>N</i>	<i>r</i>	Fisher's Z	Study Weight	WFC Inst.	$\alpha$	TO Inst.	$\alpha$
Aboobaker et al. (2017)	150	.585	.67	.378	Carlson et al. (2000)	.904	Mobley (1997)	.872
Ali & Baloch (2009)	283	.584	.67	.719	Carlson et al. (2000)	.81	Cammann et al. (1979)	.92
Alshutwi (2016)	113	.43	.46	.282	Netemeyer (1996)*	.89	Cammann et al. (1979)	.78
Anwar et al. (2017)	281	.445	.48	.714	Adams et al. (1996)	.863	Moore (2000)	.829
Bagger (2006)	196	.255	.26	.496	Guttek et al. (1991)	.705	Cropanzano et al. (1997)	.815
Bande et al. (2015)	209	.26	.27	.529	Netemeyer (1996)	.91	Fournier et al. (2010)	.94
Battistelli et al. (2013)	440	.18	.18	1.122	Netemeyer (1996)	.91	Self-developed	NR
Blomme et al. (2010)	247	.45	.48	.627	Self-Developed	.92	Ten Brink (2004)	.93
Chelariu & Stump (2011)	185	.36	.38	.467	Netemeyer (1996)	.9	Cammann et al. (1983)	.87
Chen et al. (2015)	186	.551	.62	.470	Carlson et al. (2000)	.91	Mobley et al. (1978)	.72
Daderman & Basinska (2016)	188	.35	.37	.475	Netemeyer (1996)	.89	Self-developed	NR
Dion (2006)	112	.207	.21	.280	Netemeyer (1996)	.88	Cammann et al. (1983)	.83

Field (2010)	399	.18	.18	1.017	Netemeyer (1996)	.925	Kelloway et al. (1999)	.94
Flaxman (1999)	92	.11	.11	.229	Stephans & Sommer (1996)	.86	Whitney & Lindell (1996)	.66
Grandey & Cropanzano (1999)	132	.21	.21	.331	Kopelman et al. (1983)	.9	Cropanzano et al. (1993)	.74
Grobelna & Tokarz-Kocik (2016)	60	.524	.58	.146	Netemeyer (1996)	.87	Boshoff and Allen (2000)	.86
Haar (2004)	100	.27	.28	.249	Greenhaus et al. (2000)	.89	Grover & Crooker (1995)	NR
Haar et al. (2012)	197	.41	.44	.498	Carlson et al. (2000)	.78	Kelloway et al. (1999)	.85
Hammer et al. (2011)	197	.33	.34	.917	Netemeyer (1996)	.87	Boroff & Lewin (1997)	.8
Hee (2017)	101	.326	.34	.252	Netemeyer (1996)	.88	Grzywacz, J. & Marks, N. (2000)	.82
Huang & Cheng (2012)	170	.34	.35	.429	Netemeyer (1996)	.93	Netemeyer (1996)	.9
Huh (2017)	158	.215	.22	.398	Guttek et al. (1991)	.87	Kelloway et al. (1999)	.92
Kao & Chang (2016)	240	.244	.25	.609	Westring & Ryan (2011)	.863	Voight (2011)	.78
Karatepe (2009)	189	.427	.46	.478	Netemeyer (1996)	.82	Singh et al. (1996)	.87
Karatepe & Azar (2013)	141	.434	.46	.354	Grzywacz	.78	Singh et al. (1996)	.8

& Marks, N. (2000).

Karatepe & Kilic (2015)	144	.087	.09	.362	Carlson et al. (2000)	.87	Singh et al. (1996)	.95
Kossek et al. (2006)	245	.18	.18	.622	Guttek et al. (1991)	.73	Boroff & Lewin (1997)	.85
Kuvaas et al. (2017)	4518	.37	.39	11.597	Guttek et al. (1991)	.85	Kuvaas (2008)	.92
Liao (2011)	236	.12	.12	.598	Guttek et al. (1991)	.8	Tekleab et al. (2005)	.77
Ma. Regina (2013)	991	.34	.35	2.538	Kopelman et al. (1983)	.88	Self-developed	.74
Mack (2015)	59	.9	1.47	.144	Self-Developed	NR	Self-developed	NR
Masuda et al. (2012)	3914	.23	.23	1.045	Carlson et al. (2000)	.85	Spector et al. (1988)	NR
Mauno et al. (2015)	814	.099	.10	2.083	Carlson et al. (2002)	.82	Self-developed	.87
Molino et al. (2016)	617	.06	.06	1.577	Netemeyer (1996)	.91	Schaufeli & Bakker, 2004	.77
Nei et al. (2015)	2781	.21	.21	7.135	Not Reported	NR	Not Reported	NR
Payne et al. (2012)	316	.28	.29	.804	Carlson et al. (2000)	.88	Cammann et al. (1983)	.73
Prati & Zani (2016)	5195	-.24	-.24	13.336	Guglielmi et al. (2011)	.73	Meyer et al. (1993)	NR
Ribeiro et al. (2016)	851	.355	.37	2.178	Netemeyer (1996)	.97	Roodt (2004)	.85

Roulin et al. (2014)	1547	.35	.37	3.966	Guerts (2000)	.86	Self-developed	NR
Sabokro et al. (2013)	494	.41	.44	1.261	Netemeyer (1996)	.842	Self-developed	.821
Sachau et al. (2012)	1185	.34	.35	3.036	Netemeyer (1996)	.77	Self-developed	.85
Sorensen et al. (2016)	234	.25	.260	.593	Carlson et al. (2000)	.93	School and Staffing Survey (2014) Lemons (2013)	.88
Spector et al. (2007)	5270	.20	.20	13.528	Carlson et al. (2000)	NR	Spector et al. (1988)	NR
Sturman & Walsh (2014)	1032	.31	.32	2.643	Netemeyer (1996)	.9	Kelloway et al. (1999)	.95
Tauetsile (2016)	438	.295	.30	1.117	Kopelman et al. (1983)	.93	Farh et al. (1998)	.77
Van Dyck (2012)	156	.45	.48	.393	Netemeyer (1996)	.93	Kelloway et al. (1999)	.96
Wang & Zhang (2009)	139	.37	.39	.349	Boles et al. (2001)	NR	Self-developed	NR
Wang et al. (2017)	325	.37	.39	.827	Carlson et al. (2000)	.874	Meyer et al. (1993)	.897
Yardley (1994)	343	.24	.24	.873	Self developed#	NR	Cammann et al. (1979)	NR
Yavas et al. (2008)	723	.32	.33	1.849	Netemeyer (1996) and Boles et al. (2001)	NR	Boshoff and Allen (2000)	NR
Yonetani et al. (2007)	179	.15	.15	.452	Netemeyer (1996)	.91	Self-developed	.84

Yunita & Kismono (2014)	210	.363	.380	.532	Carlson et al. (2000)	.86	Mobley et al. (1978)	.651
Zorlu (2012)	206	.673	.820	.521	Karatepe & Uludag (2008)	.94	Brashear et al. (2005)	.919
Kim & Jang (2014)	225	.40	.400	.570	Netemeyer (1996)	NR	Park (2002)	NR
Park (2013)	267	-.229	-.230	.678	Guttek et al. (1991)	NR	Lum et al. (1998)	NR
Lee et al. (2014)	143	.21	.21	.36	Carlson et al. (2000)	.817	Mitchel (1981) Moore (2000)	.674
Jungman & Dous (2015)	378	.29	.30	0.963	Byron (2005)	NR	Mobley (1977)	NR

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*Note.*  $N$  = study sample size;  $r$  = correlation coefficient. \* = Netemeyer et al. (1996); # = Yardley (1994) WFC measure developed from items on Guttek, B. A., Searle, S., & Klepa, L. (1991). Kopelman, R. E., Greenhaus, J. H., & Connolly, T. F. (1983) and Frome, Russel & Cooper (1992).



Table D-2

*Employee Engagement/Intention to Turnover Study Information*

Author(s)/Year	N	r	Fisher's Z	Study Weight	EE Inst.	$\alpha$	TO Inst.	$\alpha$
Alfes et al. (2013)	328	-.40	-.42	.905	Rich, et al. (2010)	.88	Boroff & Lewin (1997)	.95
Appelbaum et al. (2013)	17	-.67	-.81	.039	Saks (2006)	NR	Reychav & Sharkie (2010)	NR
bin Salahudin et al. (2016)	170	-.955	-1.89	.465	Gallup (2006)	.815	Mary (2014)	.718
de Villiers & Stander (2011)	278	-.25	-.26	.765	May et al. (2004)	.77	Sjöberg & Sverke (2000)	.83
Foster (2013)	120	.46	.50	.326	Saks (2006)	.85	Colarelli (1984)	.74
Gyensare et al. (2017)	336	-.21	-.21	.927	Harter et al. (2002)	.72	Colarelli (1984)	.79
Halliday et al. (2018)	23439	-.62	-.73	65.234	Rich, et al. (2010)	.89	Self-developed	.83
Liss-Levinson et al. (2015)	10246	-.026	-.03	28.511	Self-developed	NR	Self-developed	NR
Malinen & Harju (2017)	221	.29	.30	.607	Saks (2006)	.79	Pearce (1983)	.65
Shuck, A. et al. (2013)	241	.61	.71	.662	Rich, et al. (2010)	.96	Colarelli (1984)	.91
Shuck, B. et al. (2011)	283	-.56	-.63	.779	May et al. (2004)	.89	Colarelli (1984)	.81

Shuck (2010)	283	-.56	-.63	.779	May et al. (2004)	.89	Colarelli (1984)	.81
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*Note.*  $N$  = study sample size;  $r$  = correlation coefficient.

## Appendix E

### **Additional Funnel Plots**

This appendix includes all four types of funnel plots available in the metafor package in R. Using Sterne & Egger (2001) as a guide, as well as the metafor package website (found at [http://www.metafor-project.org/doku.php/plots:funnel\\_plot\\_variations](http://www.metafor-project.org/doku.php/plots:funnel_plot_variations)) all four funnel plot types: standard error, sampling variance, inverse standard error, and inverse sampling variance, were ran for the variable pairings of employee engagement/intent to turnover and work-family conflict/intent to turnover. Sterne & Eggers (2001) suggest using the standard error plot in most cases. However, with smaller studies the inverse standard error plot is more precise (Sterne & Egger, 2001). The plots are below. As indicated in chapters 4 and 5 the plots, given the low number of studies, similar weighting of studies, and high heterogeneity, suggest there is no evidence in bias.

Figure E-1

*Work-Family Conflict/Intent to Turnover Funnel Plots*

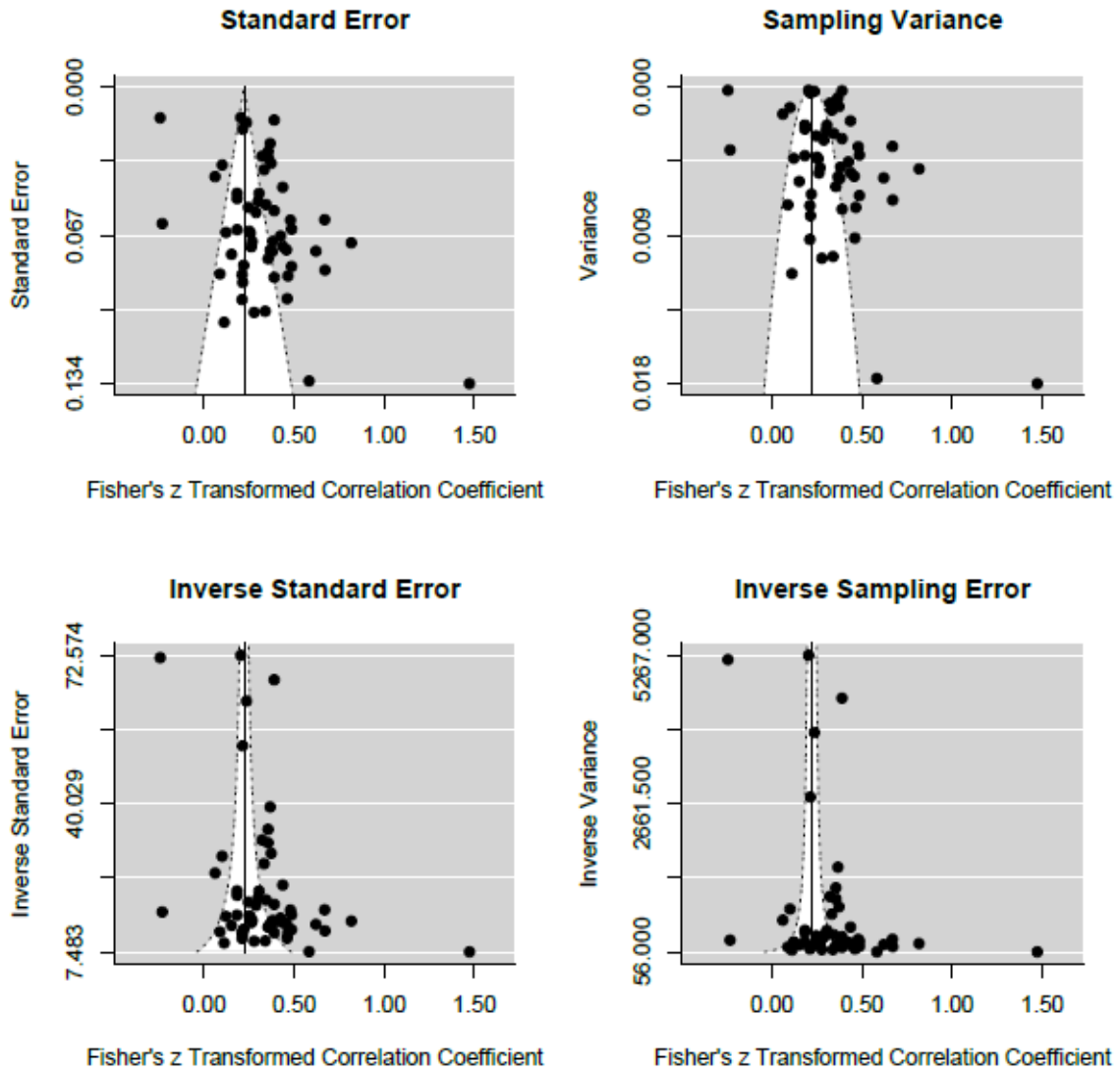
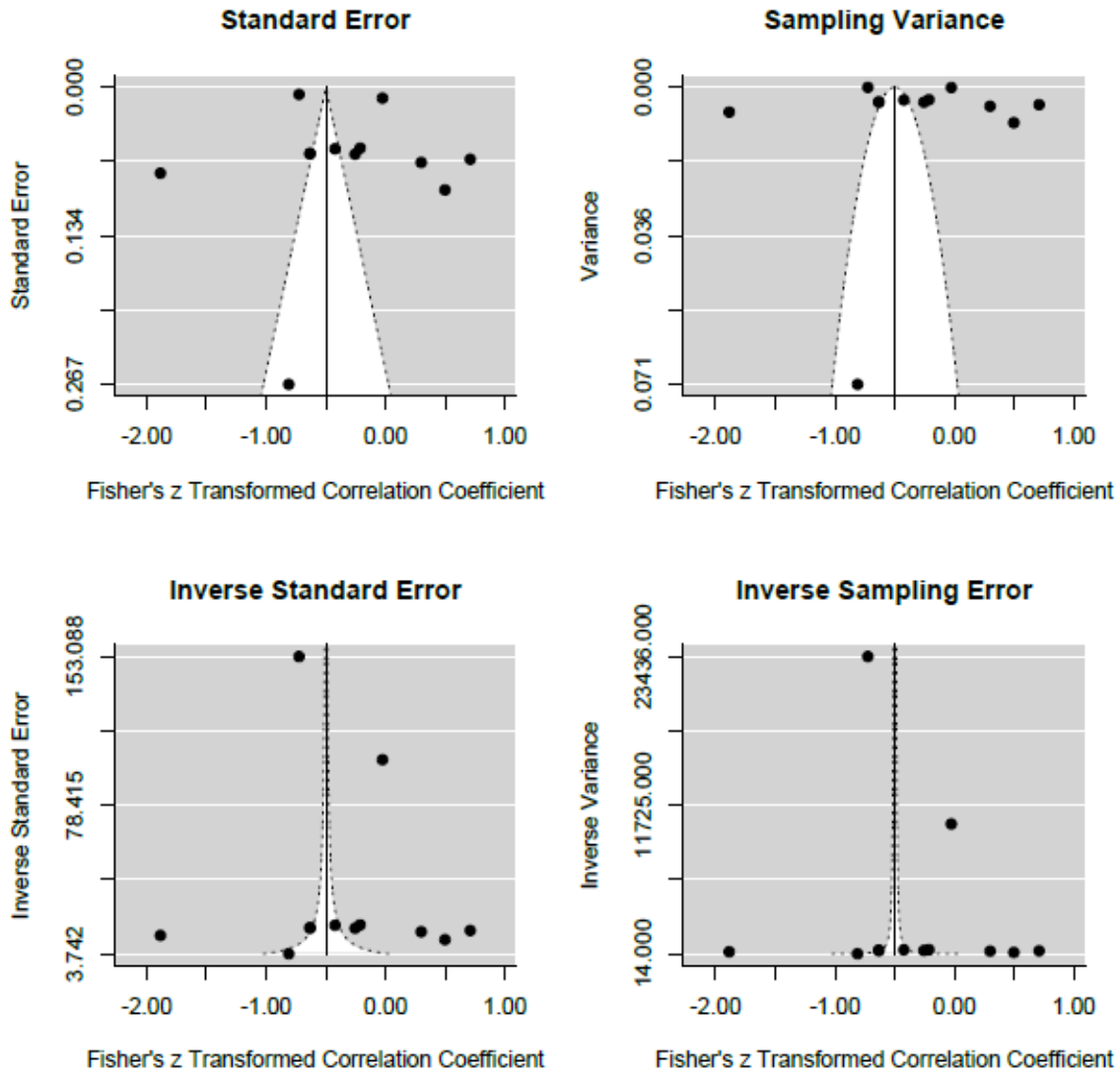


Figure E-2

*Employee Engagement/Intent to Turnover Funnel Plots*



## CURRICULUM VITAE

Joshua Branden Jordan

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### Education

**University Of Louisville**, Louisville, Kentucky expected 2019  
Doctoral Candidate, Educational Leadership and Organization Development

**Concentration**

*Human Resource Development*

*Dissertation: Meta-Engagement: An Examination of Employee Engagement Antecedent Variable Interactions and the Impact on Engagement Outcomes*

**Troy University**, Troy, Alabama 2004  
Master of Science in Management

**Concentration**

*Leadership and Organizational Effectiveness*

**Purdue University**, West Lafayette, Indiana 2002  
Bachelor of Arts, Political Science (*major*), Philosophy (*1<sup>st</sup> minor*), Religious Studies (*2<sup>nd</sup> minor*)

### Professional Certifications and Skills

The International Society of Logistics (SOLE) 2013  
**Demonstrated Master Logistician**

United States Army, Washington D.C. 2011  
**Lean Six Sigma Black Belt (ASI 1Y)**

### Professional Employment Experience

**Haworth, Inc., Holland, MI**  
*Supply Chain Project Leader* 2017-2019  
*Continuous Improvement Champion (Lean Manufacturing Champion)* 2015-2017

**United States Army, Washington D.C.**  
*Major, Logistics Corps*  
*Instructor/Writer Support Operations Course* 2013-2015  
*Doctoral Student, University of Louisville* 2011-2013

Captain, Logistics Corps  
*Assistant Executive Officer to Director, OPMD, HRC* 2010-2011  
*Logistics Observer/Controller, Joint Readiness Training Center* 2008-2010  
*Logistics Advisor, Military Transition Team, Baqubah, Iraq* 2007-2008

Second Lieutenant - Captain, Ordnance Corps  
*Commander, Headquarters and Headquarters Detachment, 68<sup>th</sup> CSB* 2004-2006  
*Budget Officer, 43d Area Support Group* 2004  
*Ammunition Platoon Leader & Executive Officer, 60<sup>th</sup> Ordnance Co.* 2002-2004

**United States Army Reserve, Washington D.C.**  
*Automated Logistics Non-Commissioned Officer* 1999-2001

**United States Army, Washington D.C.**  
*Automated Logistics Specialist* 1996-1998  
*Land Combat Support Systems (LCSS) Test Specialist* 1993-1996

### **Professional Publications**

#### **Articles in Professional/Trade Publications**

Jordan, J. (2007). Preparing for a Transition Team Assignment in Iraq. *Army Logistician*, 39(4).  
 Jordan, J. (2014) Huntington’s “The Clash of Civilizations?”: Is the clash still driving conflict? *Small Wars Journal*, 10(6). Retrieved from <http://smallwarsjournal.com/jrnl/art/huntingtons-“the-clash-of-civilizations”-is-the-clash-still-driving-conflict>

#### **Book Reviews**

Jordan, J. (2014). Book Review: All the Great Prizes: The Life of John Hay, from Lincoln to Roosevelt. *Military Review* 94(6), 140-141.  
 Jordan, J. (2015). Book Review: American General: The Life and Times of William Tecumseh Sherman, by John S.D. Eisenhower. *Military Review* 95(1), 127.

### **Works in Progress**

Jordan, J. (manuscript in preparation), *Meta-Analytic Examination of Employee Engagement Individual and Organization engagement antecedents on Organizational Outcomes* [Submission target for 2020]

### **Academic Teaching Experience**

**Army Logistics University, Fort Lee, VA**

8A-FA90/551-F39(MC) Support Operations Course 2013-2015  
*Lead Instructor/Writer Phase II, Writer Phase I*

**University Of Louisville**, Louisville, Kentucky  
ELFH 605 Leadership in HROD 2013  
*Graduate Teaching Instructor; Assist Lead Instructor*

### **Presentations and Workshops**

#### **Workshops and Presentations, Non-Competitive**

Jordan, J. (2012). *Army Talent Management: Comparisons to Current Research*.  
Presented at the 2012 Spring Research Conference at University of Louisville,  
Louisville, KY

#### **Assessment & Program Evaluation Experience**

University of Louisville, Louisville, Kentucky  
*Zero Waste Needs Assessment* (Lee, E., Jordan, J., & Fryrear, B.) 2012

Yum Brands, Kentucky Fried Chicken, Louisville, KY  
*Chicken Mastery Program Evaluation* (DeFerraro, D., & Jordan, J.) 2012

United States Army Human Resources Command, Fort Knox, KY  
*Officer Nominative Process Evaluation* 2011

#### **Professional Honors**

Awarded membership to the *Honorable Order of Kentucky Colonels* 2011

Awarded Army Commendation Medal 2011

Awarded Meritorious Service Medal 2010, 2015

Awarded Bronze Star Medal 2008

*Brother of the Year*, Alpha Tau Omega Gamma Omicron Chapter 2001

*Communications Award*, Alpha Tau Omega Gamma Omicron Chapter 2001

#### **Non-Academic Community Service**

American Red Cross, Louisville, Kentucky, *Volunteer* 2012

Fort Polk Child and Youth Services, *Youth Soccer Coach* 2009

Fort Carson Child and Youth Services, *Youth Soccer Coach* 2003-2004

#### **Professional Affiliations**

Academy of Human Resource Development 2011-Present



American Educational Research Association	2011-2015
Society of Human Resource Management Professionals	2011-2013
United States Chess Federation	2009-Present
Veterans of Foreign Wars	2005-Present
Alpha Tau Omega Fraternity	2000-Present