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Job Crafting and Individual Management of Work-Family Balance Across Family Stages

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Job Crafting and Individual Management of Work-Family Balance Across Family Stages

by

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ABSTRACT

Past research often viewed work-family balance as static and has rarely explored how perceptions may differ across stages of life. This study adopted a family life course developmental theoretical framework to test for mean differences in work-family balance across unique family stage groups. Results indicated that mean work-family balance varied across groups, but not according to the specific patterns that were predicted. In addition, this study proposed that job crafting was a cognitive-behavioral strategy that individuals can use to alter their own levels of work-family balance. Correlational, time-lagged, and change-to-change effects provide initial support for the relationship between job crafting and work-family balance. Little evidence was found to support differences in the effect of change of job crafting on change of work-family balance across family stages, although exploratory analyses that considered family stage and gender groups suggest that the relationship between job crafting and work-family balance may not be uniform across all persons. Overall results suggest that work-family balance differs across family stage and that job crafting is related to work-family balance.

CHAPTER ONE:

INTRODUCTION

The desire to experience a balance between work and family is widespread among employees, yet the realization of this idealized state is elusive to many (Hurtado, Eagan, Pryor, Whang, & Tran, 2012). The work-family balance (WFB) literature is a subsection of the multidisciplinary work-family interface (WFI) field that broadly examines the multilevel interconnections (e.g., relationships, attitudes, and activities; Voydanoff, 2004) between individuals, families, organizations, and societies that exist as a result of individuals holding roles in multiple life domains (e.g., work and family). Although various conceptual and definitional debates are ongoing in the academic literature, WFB can generally be described as a psychological experience that is comprised of global thoughts and feelings, which results from a holistic appraisal that one is effective in and satisfied with both their work and family lives (Allen & Kiburz, 2012).

Many WFI constructs, such as work-family conflict (WFC) and work-family enrichment (WFE), link the work and family domains by explaining how the characteristics and experiences in one role positively or negatively affect the other role. Conversely, instead of representing cross-domain effects (Valcour, 2007; Greenhaus & Allen, 2011), WFB represents the gestalt that results from independent satisfaction and effectiveness appraisals of the work domain and the family domain (Wayne, Butts, Caper, & Allen, 2017). Rather than being an appraisal of one's

life circumstances concerned with objective alignment to societal standards, appraisals of WFB are more holistic and subjective in nature, and are formed with respect to the personal values one places on each role and the relative way roles are prioritized (Greenhaus & Allen, 2011). Research on *work-family role prioritization* (role prioritization; Friedman & Greenhaus, 2000) suggests that some individuals prioritize both roles equally and can be classified as *career-and-family-focused*, while others prioritize one specific role and can be classified as *career-focused* or as *family-focused* (Greenhaus & Allen, 2011). Thus, depending on the role that one typically prioritizes in conjunction with the importance placed on each role, a family and work situation that is perceived as balanced to one person could be perceived as imbalanced to another. Moreover, research indicates that there are typical patterns of role prioritization that differ across the lifespan, and it has been suggested that these patterns are related to the shifting work and family roles and responsibilities that are associated with each life stage (e.g., prioritizing work at the start of one's career; Mattessich & Hill, 1987; Demerouti, Peeters, & van der Heijden, 2012). This suggests that the average perception and appraisal of WFB may differ systematically across life stage groups, however, most research has treated WFB as static, as opposed to adopting a lifespan perspective (Baltes & Dickson, 2001; Allen & Finkelstein, 2014; Erickson, Martinengo, & Hill, 2010).

WFB merits further examination for the following four reasons. First, numerous stakeholders benefit from the study of WFB as it has been linked to a host of positive individual well-being outcomes such as job, family, and marital satisfaction (Carlson, Grzywacz & Zivnuska, 2009; Ferguson, Carlson, Zivnuska, & Whitten, 2012). WFB also relates to organizational management, recruitment, and retention efforts, as WFB has been associated with job performance (Wayne et al., 2017), organizational commitment (Carlson et al., 2009), and job

applicants have reported that expected level of WFB is a factor that is often weighed carefully when job offers are being considered (Sturges, 2012).

Second, qualitative studies have reported anecdotal employee descriptions of the individual strategies that are commonly enacted as attempts to enhance WFI management, yet little research has examined specific behavioral or cognitive strategies and their efficacy to alter WFB (Morganson, Culbertson, & Matthews, 2013). WFI management strategies can be conceptualized as "any action that people can take in order to reduce conflict, enhance facilitation or maintain balance between their work and non-work domains" (Morganson et al., 2013), and examples of these strategies include altering sleep schedules and seeking social support (e.g., Damiano-Teixeira, 2006; Acker & Armenti, 2004; Cannizzo & Osbaldiston, 2016). However, in this limited literature, much of the research conducted thus far has examined associations between WFI management strategies and WFC, as opposed to WFB. Calls for further examination of the relationship between individual strategies and WFB have been made (e.g., Bianchi & Milkie, 2010), and a greater understanding of these relationships are especially warranted when considering that many employees lack access to formal WFB benefits entirely (Obama & Furman, 2015), or report that they do not take advantage of available work-family benefits out of fear that doing so would lead to negative career repercussions (Wayne & Cordeiro, 2003) or being stigmatized as a lazy and uncommitted employee (Brannen & Lewis, 2000).

Third, research indicates a growing proportion of people around the world struggle to balance work and family. For example, a recent professional survey found that 33% of full-time employees across 8 nations (United States, United Kingdom, India, Japan, China, Germany, Mexico, and Brazil) reported that over the last 5 years "managing work-life has become more

difficult" (Twaronite, 2015). Fourth, research indicates that balancing work and family is a concern for employees of all backgrounds, regardless of gender, age, or career stage (Darcy, McCarthy, Hill, & Grady, 2012; Panisoara & Serban, 2013; Waumsley, Houston, & Marks, 2010). Thus, WFB is a topic that is relevant to a large body of people of various backgrounds, and the variety of issues surrounding the WFI are likely to increase as the family characteristics of the American workforce become increasingly diverse. For instance, compared to the 1970s, the average American is now 3.5 years older before becoming a first-time parent (Matthews & Hamilton, 2009), the rate of total childbirths to parents over the age of 40 years old has doubled (Khandwala, Zhang, Lu, & Eisenberg, 2017), and the rate of employed mothers with children under the age of 18 years old has risen 24% (Aumann & Galinksy, 2011). From an organizational standpoint, as employees' family characteristics and associated needs become increasingly heterogeneous, attempts to facilitate and support employee WFB are likely to become more complex and typical "one size fits all" approaches to work-family management are likely to become progressively less effective (Darcy et al., 2012). As such, both individuals and organizations would benefit from a more detailed understanding of the ways employees experience, manage, and influence their own level of WFB across all stages of life.

The current study has four primary purposes. The first is to gain clarity on the average level of WFB that employees report across different periods of life by examining mean group differences on WFB by family stage. In order to examine this issue, this project will adopt an overarching family life course developmental theoretical framework (FLCD; White, Klein, & Martin, 2014) that originated in the fields of developmental psychology and sociology. *Family stage* is an individual-level FLCD demographic variable that is used to demarcate unique phases of the family life course (e.g., when youngest child is in preschool or high school) that are

"distinctive enough from those that precede and follow it to constitute a separate period" (Erickson et al., 2010; Mattessich & Hill, 1987). FLCD asserts that the system of tasks, roles, and responsibilities, that are associated with normative family life change in a relatively systematic and predictable way as families develop, and that similarities in experiences can be captured and compared using family stage. Here I argued that because levels of family demand and role responsibilities differ across family stage, perceptions of WFB should also differ by family stage, such that mean reported WFB is lowest in the most demanding stages.

The second purpose is to offer theoretical support to the idea that job crafting is one behavioral-cognitive strategy individuals may use to influence their own level of WFB and to provide initial empirical evidence of this relationship. Job crafting captures the proactive "physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzesniewski & Dutton, 2001). I argue that increased job crafting is directly associated with enhanced workplace experiences and indirectly associated with enhanced family experiences via a spillover process. This project will provide an initial test of this proposition by assessing baseline correlations, if baseline job crafting predicts future WFB, and if changes in levels of job crafting (ΔJC) predict changes in WFB (ΔWFB) after one year.

The third purpose is to examine if the proposed relationships between job crafting and WFB are moderated by role prioritization. I argue that because role prioritization captures the relative contribution that the work- and family-domain components have on global WFB and because job crafting should be more strongly associated with enhancement of the work-domain components of WFB, the association between job crafting and WFB should be greater for career-focused individuals whose WFB perceptions are based more on appraisals of the work domain. The fourth purpose is to examine if and how these predicted relationships differ by family stage.

This study makes three key contributions to the literature. First, this study contributes to WFB theory by expanding our understanding of the varied ways diverse groups of employees experience and report WFB across the lifespan. Demographic variables commonly used to define family stage (e.g., employee or dependent child age), have previously been recognized as influential in the work-family literature, yet have generally been treated as control variables (Barnes-Farrell & Matthews, 2007; Erickson et al., 2010; Demerouti et al., 2012) in studies using predominately cross-sectional designs (Greenhaus, 2008). Thus, much of the WFI research treats work-family phenomena as static and fails to incorporate the reality that personal values, as well as the demands, tasks, and priorities associated with work and family roles, differ across the lifespan (Demerouti et al., 2012). This research guards against the potential pitfalls of oversimplifying relationships and masking importance differences through statistical control (Allen & Shockley, 2012; Allen & Finkelstein, 2014; Becker, Atinc, Breaugh, Carlson, Edwards, & Spector, 2016) by directly examining WFB differences associated with family stage and by adopting the FLCD framework, which recognizes that many of the characteristics and experiences that form the basis of work-family perceptions are complex and dynamic. Given that the workforce is changing in terms of rates of parental employment and the average age of parents during childbirth, thereby increasing variance of employee-child age ratios, it is more important than ever that the experiences of employees of all family stages are studied and compared in order to gain a more complete understanding of how WFB is perceived across the lifespan. The examination of family stage group differences strengthens this contribution by underscoring the importance of considering a wider range of demographic and family characteristics when designing WFB studies or interventions. Further, demonstrating if subgroup WFB differences exist serves as a practical contribution that could inform organizational policies

by highlighting which employee groups may be the most vulnerable to low WFB, and therefore, may stand to gain from WFB-enhancing initiatives.

Second, this study contributes to the burgeoning literature on proactive individual WFI management strategies by examining the relationship between job crafting and WFB. Despite the suggestion that job crafting may be related to work-family phenomena (Demerouti, 2014), this proposition has scantly been inspected (e.g., Rastogi & Chaudhary, 2018; Akkermans & Tims, 2017). This project bolsters this literature by offering a conceptual link between job crafting and WFB, and by being the first to frame job crafting as a strategy individuals use in attempts to alter their own WFB perceptions. In addition, this study provides an initial test of this proposition by directly investigating baseline correlations, how baseline job crafting predicts WFB after one year, and how ΔJC positively predicts ΔWFB over a one year period. Results supporting that job crafting predicts baseline and time-lagged WFB, and that ΔJC is associated with ΔWFB, provide a practical contribution to individual employees via the tentative suggestion that job crafting behaviors show promise as a way to enhance one's own WFB that is available to all employees, regardless of occupational prestige, organizational benefits, and job characteristics (Wrzesniewski & Dutton, 2001; Berg, Wrzesniewski, & Dutton, 2010).

Third, this project contributes to the WFB and job crafting literatures by examining how role prioritization moderates the effects of job crafting on WFB. Additionally, the hypothesized relationships were modeled separately for each family stage, which illuminates how the effects of the proposed relationships differ for employees in different family stages. It was deemed important to look for unique associations across family stage, because it has been suggested that complex work-family phenomena, such as relationships that are more accurately captured by curvilinear relationships across the lifespan, may be masked if family stage is omitted from

analyses, which could lead to erroneous conclusions that such relationships are simple, linear, or non-significant (Allen & Finkelstein, 2014). Results that indicate when role prioritization moderates these relationships suggest that the efficacy of job crafting as a strategy to alter WFB may not be universally equivalent, and that job crafting may be a particularly beneficial or ineffective strategy depending on one's orientation to work and family roles.

The following sections begin with a brief review of the WFB and job crafting literatures, followed by a discussion on the FLCD framework that highlights the importance of adopting a lifespan perspective and examining associations with family stage in WFI research. From there, formal hypotheses are stated, and as a theoretical argument, grounded in existing empirical work, that links WFB, job crafting, family stage, and role prioritization is offered. Next, study methods and analytical strategy are described. Finally, results are presented, interpreted, and placed within the context of the larger WFI field.

Work-Family Balance

Research on WFB was preceded by research on WFC and WFE. WFC is theoretically aligned with the scarcity hypothesis (Marks, 1977), a perspective that proposes personal resources, like time and energy, have an inherent limit, and that all roles compete for these resources in a zero-sum game. WFC was originally defined as "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" and it was proposed that any role pressure from one domain "that affects a person's time involvement, strain, or behavior within a role can produce conflict between that role and another role" (Greenhaus & Beutell, 1985). In contrast, WFE, defined as "the extent to which experiences in one role improve the quality of life in the other role" (Greenhaus & Powell, 2006), is rooted in the expansionist theory (Barnett & Baruch, 1985), a perspective that suggests

engagement in multiple roles can generate additional personal resources (e.g., time management skills or increased energy) that have the power to outweigh any of the negative consequences that stem from holding more than one role. Research on WFC and WFE has demonstrated that the affect, behaviors, skills, and events originating in one domain can positively or negatively influence the other domain in a *spillover* process (Crouter, 1984). Further, these constructs have been found to be bi-directional, meaning the ways the work domain interferes/enriches the family domain (WIF/WEF), and the ways the family domain interferes/enriches the work domain (FWI/FEW) are recognized as independent processes that have unique antecedents and effects.

In recent years, WFB has become a frequent topic of conversation in the general public, where balance is often discussed in terms of time or energy allocated between work and family roles. Yet despite the concept's widespread recognition among lay audiences, the formal academic study of WFB is relatively young and rife with conceptual and definitional debates (for a recent review, see Casper, Vaziri, Wayne, DeHauw, & Greenhaus, 2018). Early researchers conceptualized WFB as the state that resulted from the absence or WFC (Buffardi, Smith, O'Brien, & Erdwins, 1999; Wayne et al., 2017), or as the result of low WFC paired with high WFE (Frone, 2003). However, more recent research has demonstrated that WFB is empirically distinguishable from WFC and WFE (Carlson et al., 2009). It was also suggested that WFB arose from equal satisfaction with, and equal time spent engaging in work and family roles (Clark, 2000; Greenhaus, Collins, & Shaw, 2003). Valcour (2007) invoked a resource-demand framework to suggest that people were satisfied with WFB when they experienced a positive emotional state that was coupled with the appraisal of successfully meeting work and role family demands. More recently, Greenhaus and Allen (2011) suggested that WFB was comprised of affective (satisfaction) and behavioral (effectiveness) appraisals, and their conceptualization of

WFB emphasized the importance of subjective perceptions. Specifically, they suggested WFB was derived from perceptions that one's level of work and family effectiveness and satisfaction were consistent with currently held *individualized* work-life values and priorities, as opposed to being consistent with *societal* norms surrounding expected role involvement and valuation.

The extent of scholarly disagreement on fundamental aspects of balance are exemplified in a recent review of the literature that examined the meaning and measurement of the more inclusive *work-nonwork balance* umbrella construct. Casper et al., (2018) identified 94 distinct conceptual definitions of balance, and found that levels of disagreement on conceptual and operational definitions have significantly increased in the published literature over the last two decades (from 1999 to 2017). However, when analyses were restricted to studies published in high quality outlets (based on impact factor) from 2012 to 2016, results indicated that among the vast majority, balance was (1) conceptualized as a psychological and (2) unidimensional variable that was distinct from WFC and WFE, and (3) perceptions of satisfaction and effectiveness were central components of operational and conceptual definitions.

With these recent trends in mind, and as differences in subjective perceptions of balance are a central focus of this study, here WFB was conceptualized as an interrole psychological perception comprised of global thoughts and feelings, and it was operationalized as an "overall appraisal regarding one's effectiveness and satisfaction with work and family life" (Allen & Kiburz, 2012). This conceptualization is aligned with Greenhaus and Allen's (2011) model of WFB, and evokes the proposition that individuals appraise levels of global WFB by perceiving levels of satisfaction and effectiveness within work and family domains, and holistically compare them to a subjective internal standard that is associated with role prioritization. Because individuals differ in role prioritization (career-focused, family-focused, or career-and-family-

focused), the exact levels of domain-specific satisfaction and effectiveness that equate to an optimal sense of global WFB vary from person to person. This indicates that because career-and-family-focused individuals value both work and family roles, they must appraise high levels of family and work satisfaction and effectiveness in order to feel balanced. Alternatively, work- or family-focused people may feel balanced as long as they perceive that levels of satisfaction and effectiveness in the role that they prioritize most are positive.

In addition, Greenhaus and Allen (2011) proposed that WFB represents more than one's levels of WFC and WFE, and that "feelings of balance can be produced by any factor that promotes effectiveness and satisfaction in a highly valued role and are not solely a product of cross-role relationships" (Greenhaus & Allen, 2011). This proposition has similarities with the bottom-up spillover theory of life satisfaction (Andrews & Withey 1976; Lee & Sirgy, 2018), which, when adapted to WFB, would suggests that global WFB is a higher-order factor that is comprised of four second-order factors (work satisfaction, family satisfaction, work effectiveness and family effectiveness). It also suggests that when a positive resource is generated in a specific domain, for example, if an employee experiences increased social support at work, the resource gain contributes directly to domain-specific satisfaction and indirectly to enhancement of the general WFB factor.

With regard to additional theoretical antecedents of WFB, research indicates that factors related to job control (Valcour, 2007; Grawitch, Maloney, Barber, & Mooshegian, 2013; Beham & Drobnič, 2010) and social support in both the home and work domains are associated with increased WFB (Ferguson et al., 2012; Abendroth & den Dulk, 2011). Outcomes of WFB are also being uncovered, and it has been shown that higher WFB was associated with greater general quality of life (Greenhaus et al., 2003), reduced couple-level stress (Ferguson, Carlson,

Kacmar & Halbesleben, 2015), and decreased turnover intentions (Deery, 2008). Recognizing its importance, many organizations now offer family-friendly benefits that aim to facilitate employee WFB management, such as paid parental leave, onsite childcare, and flexible work arrangements like telecommuting or flextime (Kossek, Lautsch, & Eaton, 2006). However, many employees do not have access to WFB benefits; in 2011, only 12% of employees in the United States reported that their employer would have allowed them to alter the location or hours that they were expected/scheduled to work, compared to that of the previous week (Obama & Furman, 2015). Further, many of these programs have displayed modest and/or mixed effects (Allen, Johnson, Kiburz, & Shockley, 2013). The variety of family characteristics and needs among employees, and the inherently subjective nature of WFB perceptions likely contribute to the difficulties that organizations face when trying to facilitate WFB through "one size fits all" approaches, which have been criticized as generally ineffective to meet the needs of diverse pools of employees (Darcy et al., 2012).

Given that organizational benefits are unlikely to provide a panacea for WFI management, it is important that researchers seek to understand and support the ways that individuals manage their own WFB. Morganson et al. (2013) reviewed several common techniques that employees have reported using to manage WFC, such as traditional and positive coping strategies (e.g., taking direct action to resolve a problem, seeking advice or social support) and boundary management techniques (e.g., refraining from checking work emails at home). Unfortunately, the efficacy and temporal dynamics of many of these strategies have been scarcely researched. Further, Morganson et al. (2013) noted that the empirical investigation of individual strategies that employees enact specifically to influence WFB is in its infancy. However, there have been qualitative studies that have detailed various behavioral and cognitive WFB management

strategies individuals enact, such as sacrificing leisure time and reconsidering personal definitions of balance that are perceived as more achievable (e.g., Sturges, 2012; Cannizzo & Osbaldiston, 2016). This study answers calls from researchers (Bianchi & Milkie, 2010; Morganson et al., 2013) to examine WFB-focused individual strategies through an examination of the relationship between job crafting and WFB.

Job Crafting

Job crafting has been conceptualized as a proactive job re-design strategy that is comprised of a set of self-directed actions and thoughts, originally defined as, "the physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzesniewski & Dutton, 2001). Grounded in a social constructivism perspective (Gergen, 1994) job crafting theory emphasizes the importance of interactions with others on individuals' psychological interpretation of job definitions (Wrzesniewski & Dutton, 2001). Traditional perspectives have viewed managerial agents as the exclusive source of job design, which was conceived as static, unless altered via formal organizationally-sponsored job re-design initiatives (Hackman, 1980; Hackman & Oldham, 1975). However, job crafting theory (e.g., Wrzesniewski & Dutton, 2001; Wrzesniewski, LoBuglio, Dutton, & Berg, 2013; Berg et al., 2010), proposes that job definitions are subjective and are being continually re-designed through an interactive process. In this process, initial perceptions of definitional work boundaries (e.g., tasks and social interactions that comprise a job) are informed by organizationally-offered formal job definitions, and once organizational bounds are perceived, employees then engage in job crafting behaviors to re-design jobs so they are better aligned with personal needs and desires. Organizational sensemaking theories (Wrzesniewski, Dutton, & Debebe, 2003), suggest that such changes evoke, explicit or implicit, reactionary interpersonal cue display from workplace peers, clients, or

managers. If the job crafter notices these signals and interprets them as meaningful, then the social information conveyed by the cue serves as feedback to the job crafter that indicates if the change is appreciated, tolerated, or viewed unacceptable; in all cases, the subjective conceptualization of the tasks within the purview of a job and its social environment are holistically altered as a result of enacted job crafting behaviors (Wrzesniewski & Dutton, 2001). Job crafting is supported by role theory (Sarbin & Allen, 1954), which suggests that employees make individualized changes to their work, and acknowledges that even within the same position, employees generally do not perform their jobs in exactly the same way.

Job crafting is unique from other proactive work behaviors in that individuals engage in acts of job crafting without the permission of, and often without the knowledge of supervisors (Wrzesniewski & Dutton, 2001). In addition, job crafting behaviors target enhancement of individual outcomes, as opposed to improving organizational processes or resolving organizational problems (Tims & Bakker, 2010). Job crafting theory (Wrzesniewski & Dutton, 2001) proposes that employees are motivated to craft their jobs in order to satisfy three basic human needs: (1) the need to increase and maintain control over one's environment (Braverman, 1974), (2) to create a positive self-image in the eyes of oneself and of others (Steele, 1988; Baumeister, 1982), and (3) to experience positive social interactions (Baumeister & Leary, 1995). Wrzesniewski and Dutton (2001) suggested that individuals could satisfy these needs through three distinct forms of job crafting. The first is *task crafting* (JCT), which involves changing task boundaries by altering or increasing the number, scope, or type of job tasks engaged in at work. The second is *relational crafting* (JCR), which involves altering the quality and/or amount of interaction one has with others on the job. The third form of job crafting is *cognitive crafting* (JCC), which involves altering the mental perceptions one has about their job,

such as viewing work tasks as a series of unrelated activities, as opposed to considering how tasks fit together to contribute to an overarching organizational mission.

Numerous positive outcomes related to WFB have been associated with job crafting, like increased work engagement, job satisfaction, and contextual and objective job performance (for recent meta-analysis see Rudolph, Katz, Lavigne, & Zacher, 2017). It has been proposed that job crafting behaviors lead to actual changes in job designs, and that these changes are likely associated with the level of significance or meaningfulness employees attribute to their work. When job designs are altered, individuals have the opportunity to reframe the purpose of their work in a sustainable and idiosyncratically meaningful way (Wrzesniewski & Dutton, 2001; Hackman, 1980; Berg, Dutton, & Wrzesniewski, 2013), and Tims, Derks, and Bakker (2016) found that job crafting predicted job meaningfulness through person-job fit. In addition, it was theorized that work role identities can be altered as a result of job crafting via changes in patterns of interactions with others at work and work-related cognitions, like the perceived purpose of one's work. Establishing and maintaining a work identity is described as a dynamic process, where "people strive to create environments, in both their own minds and the real world, that support, validate and elicit desirable identity images. Thus, employees selectively encounter, perceive and influence the situations and audiences with which they deal" (Schlenker, 1985). Hence, the foundations of work identities are offered by the basic job description, but each individual shapes, maintains, and embraces their own unique work identity through interactions with a fastidious collection of others, and they can alter this identity through job crafting behaviors.

An alternative framework placed job crafting within the job demands-resources model (JD-R; Tims & Bakker, 2010; Tims, Bakker, & Derks, 2012) and operationalized job crafting as

"the self-initiated changes that employees make in their own job demands and job resources to attain and/or optimize their personal [work] goals." This framework proposed that individuals are motivated to engage in crafting behaviors when they experience an imbalance of job resources and demands. It was suggested that actual changes in levels of job demands and resources result when individuals perceive an imbalance and subsequently engage in job crafting behaviors. The most widely used general purpose job crafting scale (JCS; Tims et al., 2012) was developed under the JD-R conceptualization and it offers four dimension of job crafting: increasing structural resources, increasing social resources, increasing challenging demands, and reducing hindrance demands.

While there is some overlap between these two conceptualizations, such as the basic assertion that job crafting consists of individually-driven proactive work behaviors that alter job design, and that job crafting predicts increases in person-job fit (Tims et al., 2016), there are also distinct differences with respect to the actions classified as job crafting, the proposed motives that spur these behaviors, and their effects. Despite its popularity, job crafting as conceptualized under the JD-R framework has been criticized as not truly representing the job crafting construct, but rather describing the behavioral mechanisms that drive the changes in levels of job resources and demands that are central to the JD-R model (Slemp & Vella-Brodrick, 2013). For these reasons, job crafting was conceptualized and operationalized based on the original job crafting framework (Wrzesniewski & Dutton, 2001).

Family Life Course Developmental Theoretical Framework

The FLCD (White et al., 2014) is informed by three complementary theories that are all concerned with the ways that family factors relate to individual development: (1) "*individual lifespan theory*, which focuses mainly on ontogenetic development", (2) *family development*

theory, which "focuses on the systematic and patterned changes experienced over time by families as they move through stages and events of their families' journey or experience", and (3) *life course theory*, which "examines the event history of an individual and how earlier life events influence later life outcomes" (White et al., 2014). Family stage, "an interval of time in which the structure and interactions of role relationships in the family are noticeably and qualitatively distinct from other periods of time" (Aldous, 1996; White et al., 2014), is a central FLCD concept. The FLCD proposes each family stage is characterized by unique role responsibilities, such as constant childcare in stages with young children, or attending extracurricular activities in the teenage stage. The FLCD recognizes that within the same stage, discrete families have unique experiences, and that all families do not develop in a perfectly standardized manner. However, because the majority of families develop in fairly universal ways and largely experience similar types of role expectations and demands, comparing data across family stages provides useful information about the normative experiences of individuals across different periods of the family life course.

Each family stage can be defined by three general elements, (1) a transitional event that marks the beginning of a new stage, (2) a transitional event that marks the end of the current stage and beginning of the next stage, and (3) the duration elapsed between the two transitional events (White et al., 2014). Various transition parameter sets have been used to demarcate each family stage and it has been suggested that no ideal operationalization of family stages exists; this led Rodgers (1973) to advise researchers to choose parameter sets that "adequately [meet] the needs of the specific problem" (Kapinus & Johnson, 2003). WFI researchers (e.g., Erickson et al., 2010; Allen & Finkelstein, 2014; Bennett, Beehr, & Ivanitskaya, 2017) have suggested that when research questions involve examining work-family experiences across family stages, it is

most logical to demarcate each stage in accordance with age-based transitions of a family's youngest child (e.g., beginning preschool) that powerfully affect the family system (e.g., altered roles and identities).

The present study examined individuals with established families (those married or in committed relationships), and family stage membership was operationalized based on the following criteria that has been used by past researchers studying WFC across family stage (Erickson et al., 2010; Allen & Finkelstein, 2014): (1) *establishment* stage: individuals aged 45 years old or less with no dependent children at home, (2) *very young child* stage: individuals with youngest child less than 3 years old, (3) *preschool* stage: individuals with youngest child aged between 3 and 5 years old, (4) *school* stage: individuals with youngest child aged between 6 and 12 years old, (5) *teenage* stage: individuals with youngest child aged between 13 and 18 years old, and the (6) *empty nest* stage: individuals over 54 years old that do not have dependent children living at home. Dependent children were operationalized as children without special needs that lived at home and were under the age of 19 years old.

Family Stage and Work-Family Balance

To the author's knowledge, only one published study has previously examined any form of balance across family stages (Wepfer, Brauchli, Jenny, Hämmig, & Bauer, 2015). This study found that individuals in the empty nest stage reported having more work-life balance (WLB) than members of all other family stages. However, additional research that specifically examines WFB across family stage is still needed, as Wepfer et al., (2015) focused predominately on patterns of work and home demands, and the two-item WLB measure they used was not grounded in the holistic conceptualization of WFB used here.

The FLCD and general WFI literature suggests there are a number of reasons that perceptions of WFB are likely to differ across family stage. First, multiple studies have shown that levels of family demands differ across family stage. For example, Wepfer et al., (2015) found that reported home demands were highest in the preschool and school stages and lowest in the establishment and empty nest stages. Showing a similar pattern, Erickson et al., (2010) found family demands differed significantly between the establishment and very young child stages, and between the very young child and preschool stages. In addition, researchers have proposed that as a family's youngest child passes specific developmental milestones, the child becomes more independent and imposes successively fewer childcare demands on the family-system (Higgins, Duxbury, & Lee, 1994). Generally, these results suggest a curvilinear relationship, such that family demands are highest in the stages associated with young children, and lowest in the establishment and empty nest stages.

Second, it has been suggested that some family stages are more vulnerable to WFC (Allen & Finkelstein, 2014), and empirical results support this claim. For example, Erickson et al. (2010) found that WIF peaked in the school stage, while FIW peaked in the preschool stage. Allen and Finkelstein (2014) found the those in the preschool stage reported significantly more WIF than those in the establishment and teenage stages, while the very young child stage reported more FIW than the school and teenage stages. In addition, both of these researchers found that individuals in the empty nest stage reported significantly less WIF and FIW than all other stages. Taken together, the literature generally supports that WFC has a curvilinear relationship, similar to that of family demands, across family stage, such that levels of conflict are lowest in the empty nest and establishment stages and highest in the stages with young children.

It has also been suggested that as children age, parents have more opportunities to acquire time and family management skills, which should facilitate increasingly proficient WFI management, and if they learn to compartmentalize work stress, they should experience fewer negative WIF spillover events (Erickson et al., 2010). This claim is partially supported by Grzywacz, Almeida, and McDonald (2002), who found compared to individuals without children, those in family stages with children under six years old, and those with children between six and 18, reported significantly higher levels of negative FIW spillover.

Taken together, the literature suggests that levels of WFC, family demands, and spillover differ across family stage in a curvilinear pattern, such that conflict, demands, and negative spillover are higher in the family stages that are associated with young children, and are lower in the stages that come before and after having dependent children. Given these findings and that past research that has suggested these factors are antecedents to WFB (Wayne et al., 2017), I propose that mean WFB differs by family stage in a similar curvilinear pattern.

> *Hypothesis 1: There are mean differences in WFB across family stage. Specifically, mean WFB is expected to be highest in the stages not associated with children (establishment and empty nest), next highest in the stages associated with older children (school-age and teenage), and lowest in the stages associated with young children (very young child and preschool).*

Job Crafting and Work-Family Balance

Past researchers have suggested that job crafting may be one relatively unexplored individual strategy that can help employees with WFI management (Wrzesniewski & Dutton, 2001; Morganson et al., 2013). Here, I propose that there is a positive association between job crafting and WFB, a relationship which no published study has yet investigated. However, a

dissertation that has recently become available to the public (Wan, 2016) examined the relationship between WFB and JCT and JCR (conceptualized and labeled under the original job crafting framework, but operationalized under JD-R framework), in a moderated mediation model using a daily diary method. Wan (2016) found that two of the job crafting interactions she proposed were significant, but in the direction opposite of what was hypothesized. First, when baseline tendency to reduce hindrance demands (labeled task crafting) was high, the strength of the positive relationship between daily work task overload and daily negative affect was greater. Second, when baseline tendency to increase social demands (labeled relational crafting) was high, the strength of the positive relationship between daily negative affect and daily interpersonal conflict was greater.

A few methodological factors make the results of this study difficult to interpret. First, there is a clear misalignment between construct conceptualization and measurement. The increasing social resources facet of job crafting represents behaviors like asking for coaching, advice, or feedback, while JCR reflects more social behaviors like being friendly with or trying to get to know coworkers. Likewise, the reduction of hindrance demands facet reflects a restrictive set of behaviors, like trying to avoid the experience of negative affect, that differ greatly from more expansive set of JCT activities like focusing on tasks that are perceived as personally enjoyable or learning a new work skill. In addition, WFB was operationalized as global satisfaction with the work and home domain. However, the author proposed WFB measured in this way also captured perceptions of effectiveness that related to successfully allocating time or energy between domains.

Second, much of the research on the reduction of the hindrance demands crafting facet suggests that reducing hindrances is a maladaptive work-avoidance behavior that is associated

with burnout (Tims, Bakker, Derks, & van Rhenen, 2013) and is frequently found to be related to outcomes in the opposite direction of the other three job crafting facets of the JD-R model (Rudolph et al., 2017). With that in mind, the interactions Wan (2016) reported can be explained logically. For example, it is reasonable to assume that individuals that tend to withdraw from work more frequently may attempt to reduce daily hindrances demands in the face of task overload, and then experience more negative work-related rumination as a result of their maladaptive behavior that failed to effectively resolve the task overload; it is also reasonable to expect that without the catalyst of high task overload, those same people may be less likely to withdraw from work, and as a result, the maladaptive hindrance reduction behaviors associated with increased rumination would be less likely to occur in the first place.

Third, job crafting was conceptualized and measured as a static "positive personal resource" (Wan, 2016) and was treated similarly to the relatively time-invariant proactive personality construct. However, most job crafting research indicates that job crafting behaviors are motivated either by unmet personal desires and needs, or a misalignment between job resources and demands, as opposed to being a stable trait-like individual difference. This suggests that levels of job crafting should fluctuate in accordance with the current state of these personal needs or work resources and demands. This idea has been supported by repeated measures job crafting studies, such as a five-day daily diary study (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012) that found that there was considerable within-person variance on daily job crafting frequency across the study, and that daily crafting was associated with daily work characteristics like work pressure and autonomy. Therefore, given all of these methodological and conceptual considerations, and the fact that Wan (2016) did not hypothesize or analyze the direct relationship between job crafting and WFB, additional research on the topic

is merited before initial indications of the relationship between WFB and job crafting can be interpreted with confidence.

To the best of the author's knowledge, there have only been three published studies that have examined the relationship between crafting behaviors and any balance construct, and they all suggested that employees proactively alter work behaviors in accordance with personal needs in pursuit of an increased sense of balance. The first was a qualitative study by Sturges (2012), who proposed that there was a conceptual link between job crafting and the proactive behaviors that she termed *work-life balance crafting*, defined as "the unofficial techniques and activities that individuals use to shape their own work-life balance" (Sturges, 2012). Using Wrzesniewski and Dutton's (2001) three-facet job crafting model (JCR, JCC, and JCT) as a framework for interpreting qualitative semi-structured interview data, Sturges found that individuals reported engaging in strategies that changed how they completed tasks (e.g., altered the times and locations where they worked) and the ways they interacted with others (e.g., actively managed work and non-work relationships and expectations) in efforts to increase balance. Participants also reported strategies that affected work-related cognitions, such as forming idiosyncratic definitions of balance that fit their personal preferences, and considering factors they perceived as being influential on balance, such as commute time, when deciding which job offer to accept. Another common behavior was the mental weighing of the relative costs and benefits of accepting a position that was likely to offer enhanced future career prospects at the cost of poor balance in the present. Further, while Sturges (2012) was the first researcher to explicitly couple the job crafting construct with balance, other qualitative WFI investigations have documented anecdotal participant reports that balance-seeking behaviors, which could easily be conceptualized as job crafting behaviors (e.g., pondering the effect that one's work has on the

community, or considering the economic benefits work provides for one's family; Evans & Young, 2017), helped to achieve an increased sense of balance.

Although Sturges (2012) did not empirically test if those crafting behaviors predicted balance, in the second published study on the topic, researchers (Gravador & Teng-Calleja, 2018) filled this gap by developing a six factor WLB crafting scale (*protecting private time*, *working efficiently*, *fostering friendship with family*, *limiting work demands*, *using technology*, and *working away from the office*) based on Sturges' (2012) data. Using this new scale, they then examined if any of these factors predicted satisfaction with work-life balance (SWLB). Though all facets showed significant correlations (ranging from $r = .14$ to $r = .45$), only protecting private time and working efficiently predicted SWLB, accounting for 41% of its variance. These results support that employees engage in proactive behavioral and cognitive WFI management strategies that are associated with their perceived sense of balance. The third and final study (Mihelič & Aleksić, 2017) extended these findings by specifically examining the relationship between one facet of job crafting, as opposed to WLB crafting, and found that among undergraduate students aged 18 to 25 years old, crafting of school-work tasks was positively correlated ($r = .23$) with, and predicted satisfaction with "study-personal/family" balance. This study indicates that making general adjustments to one's work, as opposed to those that are specifically targeting work-family management, are also related to an enhanced sense of balance.

While none of these studies directly examined the relationship between job crafting and employee WFB, they generally support the idea that increasing WFB is a commonly held employee goal, that individuals proactively alter the ways that they work in pursuit of this goal, and that they often perceive some ability to attain their goal of increasing balance through these actions. However, research has shown that employees report engaging in job crafting behaviors

with different frequencies (Petrou et al., 2012; Berg et al., 2010). Moreover, job crafting has been associated with a number of individual difference variables (e.g., proactive personality, self-efficacy, promotion regulatory focus; Rudolph et al., 2017) that the broader field of research on proactive work behaviors has shown are associated with increased rates of personal goal attainment (e.g., Parker, Williams, & Turner, 2006). This suggests that compared to those high in job crafting, employees that craft less may be less likely to experience WFB, because they are not enacting as many attempts to customize their job in accordance with their personal needs. Considering all of this together suggests that many people set a personal goal to increase their level of WFB, and in general, individuals that have the tendency to alter their jobs according to personal preferences and desires may be more likely to attain their personal goals, thus, I proposed that job crafting behaviors and WFB are positively correlated.

Hypothesis 2: Baseline job crafting is positively correlated with baseline WFB.

Additionally, in the following section, I proposed that job crafting behaviors predict future perceptions of WFB, and support this proposition by arguing that job crafting enhances workplace experiences directly, and enhances family experiences via positive spillover from work to family. The conceptualization of WFB invoked here assumes that any factor that enhances work or home experiences and promotes increased satisfaction or effectiveness in the work or home domain should promote increased perceptions of future global WFB (Greenhaus & Allen, 2011). Job crafting theory suggests that many experiential aspects of work, such as perceived "positive meaning and sense of self, engagement, commitment…and performance" (Wrzesniewski et al., 2013), should be directly enhanced when individuals proactively alter the design of their work-related tasks, thoughts, and social interactions, in accordance with their subjective needs and desires. Many empirical investigations support that job crafting is

associated with improved workplace attitudes, for example Ghitulescu (2006) found job crafting was related to enhanced job satisfaction, and commitment; Tims et al., (2016) found that job crafting predicted increased job meaningfulness after two weeks via increased person-job fit after one week. Numerous studies have demonstrated links between job crafting and enhanced aspects of effectiveness at work (e.g., Tims et al., 2012; Petrou et al., 2012), one of which showed that baseline job crafting was associated with increased levels of engagement and job satisfaction, and decreased burnout one year later (Nielsen & Abildgaard, 2012), and another found job crafting predicted job performance via engagement (Tims et al., 2013). Taken together, past research suggests that job crafting is associated with many different forms of positive workplace outcomes that contribute to enhanced overall work experiences and promote increased perceptions of work satisfaction and effectiveness, all of which should bolster more favorable appraisals of global WFB (Greenhaus & Allen, 2011).

In addition, while the positive outcomes just discussed were all associated with the work role, spillover theory suggests that these same job crafting benefits may also indirectly enhance perceptions of satisfaction and effectiveness in the family domain. Spillover theory argues that positive experiences that occur in one role are associated with increased availability of personal resources (affect, events, behaviors, and skills) in that domain, and those gained resources can be transferred and utilized in other roles. This is relevant to the relationship between job crafting and WFB, because for example, if an employee engages in JCR and has a positive social experience at work (e.g., pleasant interaction with manager), that act of crafting relates to increases in personal resources (e.g., social support, self-efficacy, positive affect; van den Heuvel, Demerouti, & Peeters, 2015), and later, those same resources can spillover into the family domain, thereby facilitating an increased ability to perform in, and attain satisfaction from

the family role, both of which relate to global WFB perceptions. This line of logic is supported by Slemp and Vella-Brodrick (2014), who argued that job crafting is related to global satisfaction across all roles, as well as the actualization of human potential, and found that JCT, JCR, and JCC predicted subjective and psychological well-being via the satisfaction of basic psychological needs (competence, autonomy, relatedness).

Taken together, when considering the many ways job crafting directly enhances perceptions of work effectiveness and satisfaction, and the likelihood that the effects of job crafting may spillover into the family domain, thereby indirectly effecting family satisfaction and effectiveness, the literature supports that job crafting enhances all domain-specific components of WFB, which in conjunction, should promote increased perceptions of global WFB.

Hypothesis 3: Baseline job crafting positively predicts WFB one year later.

In addition, because the argument supporting the proposition that job crafting predicts future WFB is based in part on the idea that job crafting should be directly related to enhanced work experiences, and indirectly related to enhanced home experiences, the relationships between spillover and domain-specific satisfaction must be considered. There are two competing hypotheses, the domain specificity hypothesis (Bellavia & Frone, 2005) and the source attribution hypothesis (Grandey, Cordeiro, & Crouter, 2005), that have been invoked to explain whether the outcomes of cross-domain spillover are more strongly related to the domain in which the spillover originated, or the domain in which the spillover was received. The domain specificity hypothesis argues that the stronger association is with the receiving end (e.g., high positive spillover from *work to family* is more strongly associated with higher *family* satisfaction), while the source attribution hypothesis argues that the stronger association is with the originating domain (e.g., high positive spillover from *work to family* is more strongly

associated with higher *work* satisfaction). A meta-analysis (Shockley & Singla, 2011) examined the WFE literature in order to examine how well each of these hypotheses were supported. The researchers found evidence that conflict and enrichment were associated with outcomes in both the receiving and originating domains, but the effects were much larger for the source attribution path estimates. For example, FEW was related more strongly to family satisfaction (β = .31), though it still predicted job satisfaction (β = .02) significantly. The same pattern was found between WEF and job (β =.34) and family satisfaction (β =.06).

These results suggest that positive spillover from work to family predicts the work domain components of WFB much more strongly than the family domain components. This is important for the relationship between job crafting and global WFB, because it suggests that job crafting should have a stronger proximal impact on positive work experiences, and a weaker distal impact on family experiences. In addition, as stated previously, the exact mix of work and family satisfaction and effectiveness that constitute an appraisal of WFB for each person differs based on the relative values they place on their work and family identities. Because career-focused individuals value their work role more strongly than their family role, their global sense of WFB should be more strongly associated with appraisals of satisfaction and effectiveness in the work domain, while the global WFB of family-focused individuals should be more strongly related to the family domain components of WFB. Taken together, if job crafting is more strongly associated with enhancements of the work domain components of WFB, and the work domain components are more strongly linked to the global WFB perceptions of career-focused individuals, I propose that role prioritization should moderate the relationship between job crafting and global WFB (see Figure 1).

Hypothesis 4: Role prioritization moderates the relationship between job crafting and future WFB, such that the positive effect of job crafting on WFB is strongest for individuals that prioritize work, and the effect is weakest for individuals that prioritize family.

Changes in Job Crafting and Work-Family Balance Over Time

In the following section I argue that job crafting goes beyond predicting only baseline and time-lagged WFB, and that there are two reasons to expect that ΔJC predicts ΔWFB. The first is that, as suggested previously, increased levels of job crafting behaviors have been associated with increases in work resources, and an increased level of work resources should help to facilitate increased global WFB. However, researchers have suggested that because job crafting has an iterative nature and is best described as an "ongoing, dynamic process rather than a single time event" (Berg et al., 2013), there will likely be a significant time-lag between the point at which changes in levels of job crafting are initiated and the point at which changes in levels of WFB manifest (Wang, Demerouti, & Bakker, 2017). For example, qualitative research has shown that first attempts at job crafting are not always immediately successful, and sometimes they create only minor changes; but even small changes can motivate additional crafting behaviors that may eventually engender more significant workplace changes and impactful outcomes (Berg et al., 2010). It has also been shown that in some instances, employees perceive that their job, in its current form, does not allow them to job craft in the ways they desire most (e.g., perceive lack of autonomy to start a new pet project). However, when hampered, employees can enact *adaptive moves* (e.g., engage in JCR with manager to build trust; Berg et al., 2010) that eventually allow them to overcome the barriers that prevented their initial crafting attempts from being successful. Engaging in multiple acts of job crafting and adaptive moves

take time, and this reiterates the important of examining the outcomes of job crafting longitudinally.

The second reason, is that positive affect at work is one of the resources that job crafting has been suggested to predict, and the broaden-and-build theory (BBT; Fredrickson, 1998) of positive emotions supports that increased levels of positive affect should be related to time-lagged increases in levels of WFB. Briefly, BBT, rooted in evolutionary and positive psychological disciplines, has three central hypotheses. The first is that when individuals experience a discrete emotion (e.g., fear) they react to it with a behavioral response that is chosen from a mental catalogue of typical action tendencies (e.g., fight or flight), called momentary thought-action repertoires. Research indicates that the momentary thought-action repertoires of negative emotions generally consist of few action options that generally manifest as urges that are directly linked to a specific action, which is thought to allow for the enactment of rapid responses to life-threatening situations. However, positive emotions are not typically associated with such dire situations, and research on BBT suggests that the momentary thought-action repertoires of positive emotions generally contain many more response action options than the repertoires of negative emotions. In addition to being more numerous, the response action options associated with positive emotions are more ambiguous in nature and distally related to specific behavioral responses. The second central hypothesis of BBT is that positive emotions "broaden people's momentary thought-action repertoires, widening the array of thoughts and actions that come to mind" (Fredrickson, 2001). Fredrickson (2001) explained this broadening effect through examples, including how joy can "[broaden] by creating the urge to play, push the limits, and be creative" and how contentment can "[broaden] by creating the urge to savor current life circumstances into new views of the self and of the world". This leads to the thirds

central hypothesis of BBT, which states that as positive emotions are experienced more frequently and thought-action repertoires continue to change, individuals begin to develop "habitual modes of thinking or acting" that are more expansive and positive, and this helps to "build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources" (Fredrickson, 2001), the benefits of which can accrue and lead to a positive upward spiral that is associated with enhanced resilience and emotional well-being.

BBT, in the context of the relationship between job crafting and WFB over time, suggests that when individuals increase their level of job crafting, they should experience episodes of positive affect at work more frequently, which should lead to more positive and expansive momentary thought-action repertoires, as well as additional personal resources, such as psychological resilience. In addition, it has been suggested that having larger positive momentary thought-action repertoires may actually help reduce the strains associated with negative affect. This suggests that increased positive affect may help reduce the negative workplace spillover that is associated with decreased global WFB.

Taken together, when individuals alter their level of job crafting, this should lead to increased work resources, including positive affect, that relate to domain-specific and global WFB. In addition, as individuals engage in job crafting and shape their job to their needs, they should experience positive affect more frequently, which can lead to additional personal resources that are associated with increased positive spillover and decreased negative spillover. All of this suggests that increases in levels of job crafting should predict increases in WFB, but that these relationships will only become apparent if they are examined over a sufficiently long period of

time due to the iterative nature of job crafting and the time it takes to increase one's momentary thought-action repertoires (see Figure 2).

Hypothesis 5: Changes in job crafting positively predict changes in WFB across one year.

In addition, as with the static prediction of WFB, due to the association with increases in workplace resources, the effect of the change prediction should also be strongest for individuals that prioritize work over family.

Hypothesis 6: Role prioritization moderates the relationship between changes in job crafting and changes in WFB after one year, such that the positive effect of changes in job crafting is strongest for individuals that prioritize work and weakest for individuals that prioritize family.

Job Crafting, Family Stage, and Work-Family Balance

In this section, I propose that the hypothesized effects of job crafting on future WFB should differ for employees in different family stages. As stated previously, I expect that mean levels of WFB differ by family stage, such that WFB is highest in the family stages not associated with children and lowest in the family stages associated with young children. That proposition is based on the argument that individuals in the family stages associated with young children face extremely high family demands and are particularly vulnerable to experiencing increased levels of WFC. With these propositions in mind, I argue there are two reasons to expect that the effect of ΔJC on ΔWFB should be stronger for individuals in family stages with young children and weakest for individuals in stages without children.

First, job crafting theory suggests motivation to craft may have a bi-directional nature, in that when individuals are satisfied in the home domain, they may be less motivated to job craft in the

work domain (Wrzesniewski & Dutton, 2001). It also suggests that when an unsatisfying aspect of work is difficult or impossible to change, being unable to enhance their experience by crafting it, employees may compensate by seeking to enhance their overall work experience by crafting an aspect of work that is more malleable. These two assertions suggest that when individuals are not being fully satisfied in one role domain, they may seek compensation in the other domain. This proposition is supported by past work-family research on supplemental domain compensation that suggests that employees may "respond to dissatisfaction in one domain by pursuing rewards in another" (Edwards & Rothbard, 2000). Following this logic, individuals in the family stages with young children are more likely to experience decreased family domain satisfaction due to the high levels of demands and WFC that are associated with that family stage. In addition, when considering that family demands, such as large time and energy requirements for childcare, may be very difficult to change, it suggests that individuals in those stages may be more likely to adopt a work domain compensation strategy, such as job crafting.

Second, tenants of many organizational theories, including conservation of resources (Hobfoll, 1989) and JD-R, propose that when individuals are in particularly demanding positions, efforts to enhance one's situation are even more impactful than they would have been under more normal situations. This suggests that the beneficial effects of job crafting on WFB should have an even stronger effect for individuals in the stages with young children. For these reasons, I argue that the effects of ΔJC on ΔWFB should differ for employees in different family stages.

Hypothesis 7: The strength of the path coefficient from changes in job crafting to changes in WFB across one year differs by family stage. Specifically, the relationship is strongest

during the very young and preschool family stages, and weakest during the establishment and empty nest family stages.

CHAPTER TWO:

METHOD

Procedure

The basis for the present study was data sourced from a larger study intended to examine faculty work design (supported by the National Science Foundation under Grant #1461617). Once a year, over a three-year period, university faculty were sent invitations via email that requested participation in an online survey study that took approximately 20 to 30 minutes to complete (see Appendix A for emails). Two reminder invitation emails were sent approximately two and four weeks after the launch of each wave of data collection.

The larger study initially recruited faculty members exclusively from the University of South Florida (USF) and was later expanded to include all public institutions in the State of Florida University System (with the exception of University of West Florida, which requested to be excluded). During the first wave of data collection at USF, a portion of the invitation emails were distributed by university administrators and it is therefore impossible to calculate exact response rates for the USF recruitment pool at wave 1. For the remainder of the study, all invitations were sent directly from the researchers, so response rates can be calculated. The wave one response rate (excluding USF participants) was 16.5%, the wave two response rate was 13.3%, and the wave three response rate was 8.37%.

Sample Size and Inclusion Criteria

Data Source. Eligibility to participate in any wave of data collection in the larger study was not contingent on participation in a past wave, and participant recruitment pools were updated before each new wave of data collection began. As a result, the complete dataset included 1,343 wave one responses, 1,195 wave two responses, and 922 wave three responses, that were provided by 2,529 unique participants. Of the 2,529 participants, 70.5% participated in a single wave, 18.9% participated in two waves with a one-year lag, 4.4% participated in two waves with a two-year lag, and 6.2% participated in all three waves.

In order to maximize sample size in the present study, each participant's Time 1 (T1) data was sourced from the earliest data collection wave in which responses were provided to role prioritization, job crafting, and WFB survey items. When available, Time 2 (T2) data was sourced from responses that were provided in the data collection wave immediately following T1 (after a one-year lag). Under this method of classification, the study sample contained 1,980 participants with 1,980 T1 responses and 454 T2 responses.

Analysis Sample. The analysis sample was formed based on three inclusion criteria applied to T1 responses. First, reported demographic information (e.g., age, parental status, age of youngest child) needed to conform to one of the six family stage classifications. Second, participants needed to report that they were married or in a committed relationship. Third, due to the unique caregiving demands, participants needed to report that they did not live with any children under the age of 19 years old that had special needs.

A total of 601 participants who did not meet these criteria based on T1 responses were excluded; 238 did not conform to family stage demographics, 276 were not married or in a committed relationship, and 87 had children with special needs. All T2 and Time 3 (T3) responses of these 601 participants were examined, and 32 participants that met inclusion criteria

based on responses provided after T1 were identified. The most common reasons that these 32 participants became eligible for inclusion based on T2 or T3 responses were that they reported entering marriages or committed relationships (N = 12) or turning 55 years old and qualifying for the empty nest family stage (N = 10). Thus, these 32 participants were included in the sample and the first wave of data collection in which they provided responses to role prioritization, job crafting, and WFB survey items, and met inclusion criteria was treated as T1 data. When available, T2 data was sourced from responses that were provided in the data collection wave immediately following the re-classified T1 (after a one-year lag).

As a result, a total 1,411 participants were eligible for analyses and 569 were ineligible. The cross-sectional analyses included all 1,411 participants and the longitudinal analyses included 355 participants (25.2%) that provided T1 and T2 data.

Participants

Participants included in the analysis sample (N = 1,411) had a mean age of 50.0 years old (*SD* = 12.2), 59.2% were male, 80.9% were white, 73.4% were part of a dual-income household, and 47.8% reported living with at least one child under the age of 19 years old. Among those living with children, participants had a mean of 1.7 children (*SD* = .8) and the mean age of children per participant was 8.5 years old (*SD* = 5.2). Participants had a mean organizational tenure of 14.0 years (*SD* = 10.2) and they worked in a variety of different colleges (e.g., 21.2% from Arts and Sciences, 7.8% from Engineering, 7.2% from Education), with 50.6% reporting that they worked in a science, technology, engineering or mathematics (STEM) discipline. With regard to job classifications, 26.3% were full professors, 20.2% were assistant professors, 20.0% were associate professors, and the remaining 33.5% held various academic positions (e.g., instructor, teaching faculty, administrator). Regarding family stage distribution, the empty nest

stage was the most populated (36.8%) and the preschool stage was the least populated (8.4%). Table 1 displays the complete participant family stage distribution for the cross-sectional and longitudinal analysis samples.

Measures

A list containing all measures referenced below is displayed in Appendix B.

Demographics. Participants were asked to report demographic variables, including age, ethnicity, job classification, organizational tenure, college of employment, STEM classification, marital status, partner's employment status, number of dependent children living at home under the age of 19 years old, the specific ages of dependent children, and if any of those children had special needs. Analyses used demographic responses provided at T1.

Family Stage. Family stage classification was determined primarily by the age of the participants' youngest child at T1. For participants that reported living with no children under the age of 19 years old, family stage was determined by participant age at T1. Specifically, family stage was operationalized based on the following criteria, (1) *establishment*: individuals aged 45 years old or less who did not report having dependent children under the age of 19 years old living at home, (2) *very young child*: individuals with youngest child aged less than 3 years old, (3) *preschool*: individuals with youngest child aged between 3 and 5 years old, (4) *school-age*: individuals with youngest child aged between 6 and 12 years old, (5) *teenage*: individuals with youngest child aged between 13 and 18 years old, and the (6) *empty nest*: individuals over 54 years old who did not report having dependent children under the age of 19 years old living at home.

The choice of family stage classification criteria was guided by past research examining WFC across family stage (Erickson et al., 2010; Allen & Finkelstein, 2014). In a deviation from

past research, the upper age limit of the establishment stage was set at 45 years old. This deviation was made because the establishment stage is intended to capture younger individuals in relationships that may be likely to have children in the near future. In past research the establishment stage has had an upper age limit, commonly set at 35 years old, that was intended to distinguish individuals who are unlikely to ever have children from those that who more likely to have children in the future. However, because the participant sample used here was comprised of university employees, the upper age limit was increased to 45 years old to reflect the common occupational norm in academia of delaying childbirth due to early career pressures (Kemkes-Grottenthaler, 2003).

Two publically available datasets that contain a general sample of adults from the United States (Ryff, 2016) and a sample of recipients of doctoral degrees that were employed in academia (National Science Foundation Survey of Doctoral Recipients, Public, 2015) help illustrate how norms surrounding parental age at childbirth among academics differ from norms in the general population. Analyses that follow included only participants that reported being married, and from the academic sample, only participants that reported being currently employed as an instructor, lecturer or tenure-track professor were included. In the general sample, 11.5% of participants aged 35 to 39 years old and 4.9% of participants aged 40 to 44 years old reported having a child under two years old. However, among the faculty sample, 24.4% of participants aged 35 to 39 years old and 10.5% of participants aged 40 to 44 years old reported having a child under two years old (See Table 2 for the complete comparison of within-age group percentage distribution by age of youngest child). This supports the claim that academics have children well into their forties, meaning that using 35 years old as an indicator that a person is unlikely to have a child in the near future is not appropriate for an academic sample. However, placing an upper

age limit on the establishment stage remains a useful way to distinguish those that are unlikely to ever have children from those that may intend to, but have not yet had children. Thus, an upper age limit of 45 years old was chosen, as data from the faculty sample indicated that only 3% of faculty participants aged 45 to 49 years old had children under the age of two years old, meaning that by age 43, 97% of the sampled faculty members added no new children to their families. Therefore, it seems reasonable to extrapolate that after age 45, faculty members that do not already have children are unlikely to ever have children, and should thus be excluded from the establishment stage.

Work-Family Balance. WFB was measured at T1 and at T2, using a five-item scale (Allen & Kiburz, 2012) that was designed to capture global WFB perceptions conceptualized as a psychological experience comprised of the global thoughts and feelings that result from a holistic appraisal that one is effective in and satisfied with both their work and family lives. Participants provided ratings using a Likert scale that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item included, "I am satisfied with the balance I have achieved between my work life and my family life." WFB scores were formed by calculating the mean of all items, after one negatively worded item was reverse coded. This scale demonstrated high reliability in past research (α = .88; Allen & Kiburz, 2012) and in the present study (T1 α = .92; T2 α = .93).

Job Crafting. Job crafting was measured at T1 and at T2, with the Job Crafting Questionnaire (JCQ; Slemp & Vella-Brodrick, 2013). The JCQ was designed to capture job crafting as it was originally conceptualized by Wrzesniewski and Dutton (2001). The scale is comprised of 12 items, with 4 items corresponding to each facet of job crafting (JCC, JCR, and JCT). Participants were instructed to indicate the frequency with which they typically engaged in

job crafting behaviors using a five-item Likert-type scale that ranged from 1 (*hardly ever*) to 5 (*very often*). The scale instructions provided a definition of the construct, examples of job crafting, and informed participants that job crafting could be enacted in jobs with both high and low levels of autonomy. An example item included, "[You] think about the ways in which your work positively impacts your life." A general job crafting score was formed by calculating the mean of all items. Facet scores were formed by calculating means of the four items that corresponded to each facet. The JCQ demonstrated good reliability at the scale (α = .91; Slemp & Vella-Brodrick, 2013) and at the facet levels (from α = .83 to .87; Slemp & Vella-Brodrick, 2013) in past research and in the present study (scale: T1 α = .86, T2 α = .85; facet: T1 and T2 from α = .82 to .84).

Role Prioritization. Work-family role prioritization was measured using the following single item, sourced from Lobel and Clair's (1992) five-item career identity salience scale: "Select one response that best describes you and your day-to-day priorities." The item uses a five-point Likert scale, with the following response options: 1 (*I am primarily a family person*), 2 *(I am a family and career person but lean a bit more towards family*), 3 (*I am a career and family person*), 4 (*I am a family and career person but lean a bit more towards work*), and 5 (*I am primarily a work person*). Thus, higher scores indicated the tendency to prioritize work over family and lower scores indicated the tendency to prioritize family over work. As a single item measure, Cronbach's alpha reliability cannot be calculated for role prioritization. However, in the present study there was a correlation of r = .63 between T1 and T2 measures of role prioritization. This indicates adequate test-retest reliability that is equivalent to the uncorrected meta-analytic estimate of test-retest reliability (r = .63) found for single item measures of job satisfaction (Wanous, Reichers, & Hudy, 1997) that are commonly used in the literature.

Analyses

Descriptive statistics, correlations, analysis of variance (ANOVA), and moderated regression analyses were conducted using the statistical software program SPSS 24 (IBM Corp., 2016). Tests of measurement invariance and confirmatory factor analyses (CFA) were analyzed with the statistical software program R (R Core Team, 2018) using the lavaan (Rossell, 2012) and semTools (Jorgensen, Pornprasertmanit, Schoemann, & Rosseel, 2018) packages. All other structural equation models (SEM) were conducted using the statistical software Mplus 7.4 (Muthén & Muthén, 1998-2017).

Model Fit Criteria. Several indices were examined to judge the fit of CFAs, tests of measurement invariance, and structural equation models. The chi-squared goodness of fit test uses the χ^2 value to test the null hypothesis that there is no difference between the covariance matrix implied by a proposed model and the covariance matrix observed in the data. The χ^2 value is then compared to a critical value based on the degrees of freedom (df) of the proposed model given a statistical significance level of .05. If the χ^2 value of the proposed model was less than the critical value, the null hypothesis cannot be rejected, and the proposed model is said to fit the data well. Likelihood ratio tests (LRT) were used to compare the relative fit of nested models by computing the change in df (Δdf) and χ^2 ($\Delta\chi^2$) values. In such comparisons, a significant LRT result [p ($>\chi^2$) < .05] indicated the relaxed model fit better and a non-significant LRT results [p ($>\chi^2$) > .05] indicated that the constrained model fit the data better. However, because χ^2 is sensitive to large sample sizes, additional alternative fit indices were considered in conjunction with χ^2 testing to assess overall model fit, including the comparative fit index (*CFI*), root mean square error of approximation (*RMSEA*), and Akaike (*AIC*) and Bayesian (*BIC*) information criteria.

Along with the chi-square goodness of fit test, *RMSEA* is an absolute fit index that determines how well a proposed model fits the observed data. *RMSEA* estimates the extent to which a proposed model deviates from a model that fits perfectly based on observed data, and it favors more parsimonious models (Kenny, 2015). For *RMSEA*, values ≤ .10 indicate acceptable model fit and ≤ .05 indicate good model fit (Browne & Cudeck, 1993; Hooper, Coughlan, & Mullen, 2008).

CFI is an incremental fit index that indicates the extent to which a proposed model improves model fit compared to an alternative or null model, in which variables are allowed to vary but not correlate. *CFI* penalizes model complexity, and values ≥ .90 indicate acceptable model fit and ≥ .95 indicate good model fit. *AIC* and *BIC* are comparative fit indices that have no inherent meaning in isolation and are only useful when fit is compared amongst multiple models, with smaller values indicating better fit. *BIC* penalizes model complexity more harshly than *AIC*, and *BIC* is more sensitive to larger sample sizes, as the penalty for model complexity is based on the natural log of sample size.

Preliminary Analyses. First, T1 responses of groups of individuals that participated in a different number of waves of data collection were examined to determine if there were any meaningful differences that indicate these responses should not be combined for analyses. Next, the data was examined for outliers and violations of statistical assumptions, and CFAs using T1 data were conducted to verify that models of job crafting and WFB fit the data well.

In order to make meaningful comparisons of changes across time (T1 to T2) and across groups (family stages), it was important to establish that the relationships between latent constructs of interest and the survey items (indicators) used to measure them were equivalent.

Thus, change variables used in hypothesis testing were examined for measurement invariance across family stage groups as a preliminary measure.

In order to investigate measurement invariance, the following four-step CFA approach was adopted, in which an additional equality constraint was modeled at each step. In the first step, invariance was assessed based on model fit (χ^2 values and alternative fit statistics). For steps two through four, invariance was assessed via LRT and the values of alternative fit statistics in comparison with values obtained in the previous step, such that a non-significant LRT, smaller *AIC* and *BIC* values, and change values of *CFI* (ΔCFI) and *RMSEA* ($\Delta RMSEA$) $\leq$ .01 indicated that measurement invariance was established (Cheung & Rensvold, 2002).

In the first step, *configural* invariance was assessed by constraining the pattern of relations between latent factors and its indicators to be equal across groups and/or time. When configural invariance is established, it indicates that participants across time and/or groups conceptualized the construct being measured in the same way. In the second step, *metric* invariance was assessed by adding the constraint that the latent factor loadings of all indicators were modeled to be equal across groups and/or time. When metric invariance is established, it indicates that the relationships between the construct of interest and its measured indicators are equal across time and/or groups. In the third step, *scalar* invariance was assessed by adding the constraint that the intercepts of all indicators be equal across groups and/or time. In order to make comparisons across time and/or groups with confidence, scalar invariance must be established, as this suggests that individuals who are equivalent on the latent construct of interest can be expected to respond to indicators in the same way and obtain the same observed scores. In the fourth step, *strict* invariance was assessed by adding the constraint that residuals be equal

across groups and/or time. If strict invariance is established, it indicates that item-level measurement error is equal across time and/or groups.

In cases when scalar invariance does not hold, partial invariance was assessed by identifying the item intercept that displayed the greatest variance across time and/or groups and then re-conducting the scalar invariance test by allowing the intercept of the selected item to vary across time and/or groups. Fit statistics are then compared to the fit statistics obtained in the previous model, and if they indicate that invariance is supported once the intercept has been freed, then partial scalar invariance is established. In such cases, analyses were conducted first as planned, and were then re-conducted in accordance with the results of partial invariance testing (e.g., allowing the incepts of the identified item to be freely estimated across groups). Results of secondary testing are compared with the results of primary testing, and when results are consistent, this provides additional confidence that analyses are testing meaningful time and/or group differences. Comparisons of models are discussed in the Results section, and secondary model fit statistics and model comparisons are displayed in the Appendix.

Hypothesis 1 was tested with an ANOVA with planned comparisons. *Hypotheses 2* and *3* were tested with bivariate correlation. *Hypothesis 4* was tested with a mean-centered moderated regression analysis. *Hypotheses 5* and *6* were tested with SEM models. *Hypothesis 7* was tested with a series of SEM models which allowed for comparisons of path coefficient strength across family stage groups. First a baseline model was estimated in which all parameters were constrained to be equal across groups. Then a series of models with increasingly relaxed parameters were estimated, and the fit of each model was compared to the fit of the previous model to determine the significance of the relaxed parameters. All SEM models used a maximum likelihood estimator, with the exception of analyses conducted for *Hypothesis 7*,

which included a latent interaction variable and was estimated with the quasi-maximum likelihood method.

Hypotheses 5, *6*, and *7* included variables that captured changes in values from T1 to T2. Changes in JCT (ΔJTC), JCC (ΔJCC), JCR (ΔJRC), ΔJC, and ΔWFB were estimated using the two-wave latent change score SEM method (2-WLCS; Henk & Castro-Schilo, 2016; see Figure 2). The 2-WLCS method has numerous advantages for modeling change over traditional difference score and other latent change score approaches. Historically simple difference scores have been estimated by subtracting an observed score X_{i2} from X_{i1}. However, this method has been criticized because it does not account for measurement error. Another alternative for measuring change is using residual change scores. With that approach, X_{i1} scores are regressed on X_{i2}, residual values are calculated, and residual values are treated as independent variables representing change in other analyses. However, this method has also been criticized as not truly measuring within-person change over time, but rather measuring the extent to which a person's observed score at X_{i2} differs from the score that would be expected based on observed scores obtained at X_{i1} (Henk & Castro-Schilo, 2016). Latent change score approaches were developed as a method to separate meaningful change variance from variance derived from measurement error when estimating changes from X_{i1} to X_{i2}. One popular latent change method is the latent change score mediation model (Selig & Preacher, 2009) and while it has many strengths, it has been designed to estimate change using more than two observed measurement occasions.

This study adopted the 2-WLCS method, as it has been optimized to purge measurement error when capturing latent changes from X_{i1} to X_{i2}. With this approach, change is modeled by treating X_{i1} to X_{i2} observed scores as indicators of a latent factor. First, latent variables are estimated for X_{i1} and X_{i2} by constraining factor loadings, measurement errors, and intercepts of

each indicator to be invariant over time. The intercepts of these latent variables are constrained to zero, and all indicators are allowed to correlate with each other at X_{i1} and X_{i2}. Variance of the X_{i1} latent variable is estimated, but it is constrained to zero for the X_{i2} latent variable. The regression of the X_{i2} latent variable on X_{i1} is constrained to one, and the X_{i2} latent variable is constrained at one and then treated as an indicator of a latent difference score variable. The mean and variance of the latent difference variable is estimated, and the X_{i1} latent variable is correlated with the latent difference variable. In order to model change-to-change relationships, correlations between latent difference scores and cross-construct X_{i1} latent values are constrained to zero, cross-construct X_{i1} latent values are allowed to correlate, and then difference scores can be regressed on one another.

CHAPTER THREE:

RESULTS

Preliminary Analyses

Participation Rate Group Comparisons. Survey responses were sourced from three annual waves of data collection from the larger study. Of the analysis sample, 63.0% of individuals participated in a single wave of data collection and 37.0% participated in more than one wave of data collection. Because T1 data was sourced from single- and multiple-wave participant groups, and all responses were treated as equivalent in cross-sectional analyses, it was important to examine if there were any meaningful T1 differences between these participant groups on demographic or study variable responses. In addition, while 37.0% of the analysis sample provided consent to participate in multiple waves of data collection, only 23.7% of the sample provided responses to study variables at T1 and T2. The difference between the rates of consent and completion can likely be attributed to the time commitment required to complete the entire survey (20 to 30 minutes), survey fatigue, and the placement of study variables germane to the current study near the end of the survey. However, there could be meaningful differences between the group of participants that provided complete responses at T1 and T2, and the group that consented to participate in multiple waves of data collection but provided incomplete sets of responses at T1 or T2. These groups were also examined for any meaningful T1 group differences.

First, the group that participated in a single wave of data collection was compared to the group that participated in multiple waves of data collection. Participants were classified into the multiple wave group if they initiated the online surveys by providing informed consent in more than one wave of data collection, regardless of whether or not they provided responses to study variables at T2. A series of t-tests were conducted to compare the continuous variables across groups. Levene's test statistics indicated that the assumption of equality of variances was not violated in any of the t-tests. Results revealed one significant group difference, such that participants of the single wave group reported a JCC mean that was .10 higher than the mean of participants in the multiple waves group [$t(1,408) = 2.03$, $p < .05$]. This difference was investigated further with regards to *Hypothesis 2*, as it was the only proposed JCC analysis that was conducted using responses from participants in both groups. The correlation between JCC and WFB at T1 was $r = .11$ for the single wave group, $r = .13$ for the multiple wave group, and $r = .12$ when the groups were combined. Thus, while the T1 group difference on JCC was significant, the difference was minimal. Next, a series of χ^2 analyses were conducted to compare responses on categorical demographic variables. Three significant demographic differences were identified, such that the groups had significantly different distributions of participant ethnicities [$\chi^2(4) = 11.94$, $p < .05$], job titles [$\chi^2(3) = 26.13$, $p < .01$], and participants of dual-income households [$\chi^2(1) = 8.23$, $p < .01$]. As there was no reason to suspect that different distributions of the three demographic variables would have affected the relationships examined in this study, and because the group mean difference on JCC was small and groups displayed similar correlations with WFB, participants of single and multiple waves of data collection were treated equally and both were included in cross-sectional analyses. Full results of group comparisons are displayed in Table 3.

Second, among the portion of the sample that participated in multiple waves of data collection, the subgroup that only provided responses to study variables at T1 was compared to the subgroup that provided responses at T1 and T2[1]. A series of t-tests were conducted to compare continuous variables across groups. Levene's test statistics indicated that the assumption of equality of variances was not violated in any of the t-tests. Results revealed no significant group differences. Next, a series of χ^2 analyses were conducted on categorical demographic variables. One significant demographic difference was identified, such that the groups had significantly different distributions of participant job titles [$\chi^2(3) = 9.44$, $p < .05$]. However, because no differences were identified on main study variables and there was no reason to suspect that different distributions of job titles would affect the relationships examined in this study, all participants that consented to participate in multiple waves of data collection were treated equally and were used in cross-sectional analyses. Full results of group comparisons are displayed in Table 4.

Assumptions and Outliers. Study variables were examined to determine if any statistical assumptions of correlation or multiple regression were violated. All study variables were continuous measures and no responses were missing, which satisfied the level of measurement and related pairs assumptions of correlation. Study variables were screened for potential outliers by examining observations three standard deviations above or below the mean. Using this method, seven potential job crafting outliers (6 at T1 and 1 at T2) and 17 potential JCT outliers (17 at T1) were identified. Responses to all job crafting items were examined for participants of

[1] The 32 participants that only met inclusion criteria after their T1 responses were re-classified (see Analysis Sample for classification method) were excluded from these analyses. After data wave re-classification, 23 participants had only T1 responses and 9 had T1 and T2 responses. However, all 32 provided responses to study variables at more than one wave of data collection and would have been classified into the T1 and T2 group if they had met the inclusion criteria based on their initial wave of responses. Thus, the reason that 23 of these participants have only T1 data is conceptually distinct from any potential unidentified differences between groups of participants of multiple waves that provided complete and incomplete responses that were being tested for here. `

the group identified as potential outliers. Observed job crafting item values for the potential job crafting outliers group ranged from 1 to 3 and from 1 to 5 for the potential JCT outliers group. After examination, all job crafting and JCT responses were retained as all item values could be considered plausible responses to the job crafting measure. Next, study variables were screened for normality by examining skewness and kurtosis values above or below two. All skewness and kurtosis values fell within reasonable limits, ranging from -.82 to .26, which indicated that variables met the normal distribution assumption (see Table 5). Scatterplots of job crafting and WFB at T1 and T2 indicated that the assumption of linearity was met (see Figure 3).

Confirmatory Factor Analyses. CFAs were modeled using maximum likelihood estimation. Overall, the CFA of a one-factor WFB model fit the data well at T1 [χ^2 (5) = 75.98, p < .01, *CFI* = .99, *RMSEA* = .10], despite the significant χ^2 test value and a slightly elevated *RMSEA*. However, all fit statistics estimated in the CFA of a one-factor job crafting model indicated poor model fit at T1 [χ^2 (54) = 2999.42, p < .01, *CFI* = .59, *RMSEA* = .20, *AIC* = 46791.98, *BIC* = 46917.93]. A second set of job crafting CFAs were estimated in which the job crafting subscales (JCT, JCR, JCC) were modeled as three independent factors. When modeled separately as one-factor latent models, JCT [χ^2 (2) = 18.47, p < .01, *CFI* = .99, *RMSEA* = .08, *AIC* = 14235.41, *BIC* = 14277.41], JCC [χ^2 (2) = 57.21, p < .01, *CFI* = .97, *RMSEA* = .14, *AIC* = 15338.61, *BIC* = 15380.60], and JCR [χ^2 (2) = 63.95, p < .01, *CFI* = .97, *RMSEA* = .15, *AIC* = 15250.07, *BIC* = 15292.07] models all displayed acceptable fit, despite significant χ^2 values and slightly elevated *RMSEA* values. Given the poor fit of the one-factor job crafting model, all job crafting analyses were first conducted using the overall one-factor job crafting model that was initially proposed, and were then separately re-conducted using the one-factor JCT, JCC, and JCR models. Graphic depictions of all CFAs are presented in Figures 4-6.

Measurement Invariance. Models of ΔJC, ΔJCT, and ΔJCR failed to converge when tested for measurement invariance across the six family stages groups. Small group sizes, particularly the preschool (N = 22) and teenage (N = 35) stages, likely contributed to model convergence problems. For this reason, a set of four *condensed family stages* were used in all longitudinal analyses and measurement invariance tests involving family stages. The condensed family stages consisted of the unaltered establishment and empty nest stages, and the newly formed *younger child* (combination of very young and preschool stages) and *older child* (combination of school-age and teenage stages) family stages. Participant condensed family stage distributions for cross-sectional and longitudinal analysis samples are displayed in Appendix D1. Participation rate group comparisons on T1 variables discussed previously were conducted on the condensed family stage distribution and indicated there were no significant differences among groups (see Appendix D2 and D3).

All change variables were tested for measurement invariance across condensed family stage groups using the four-step process previously described. Results indicated ΔJCT [χ^2 (133) = 133.72, p ($>\chi^2$) = .26, Δ*CFI* = .00, Δ*RMSEA* = .01] and ΔJCC [χ^2 (133) = 177.45, p ($>\chi^2$) = .33, Δ*CFI* = .00, Δ*RMSEA* = .00] held through to strict invariance, while ΔWFB [χ^2 (180) = 285.89, p ($>\chi^2$) = .07, Δ*CFI* = .00, Δ*RMSEA* = .00], ΔJC [χ^2 (1125) = 2675.42, p ($>\chi^2$) = .25, Δ*CFI* = .00, Δ*RMSEA* = .00], and ΔJCR [χ^2 (109) = 137.68 , p ($>\chi^2$) = .10, Δ*CFI* = .00, Δ*RMSEA* = .00] failed the step of scalar invariance. Results indicated that partial scalar invariance of ΔWFB held when the intercept of WFB item 1 was freed to vary across groups [χ^2 (192) = 302.66, p ($>\chi^2$) = .16, Δ*CFI* = .00, Δ*RMSEA* = .00]. The same procedure was conducted for ΔJC (intercept of job crafting item 6 freed) and ΔJCR (intercept of job crafting item 12 freed). Results indicated that strict partial measurement invariance held for ΔJC [χ^2 (1194) = 2738.38, p ($>\chi^2$) =

.99, Δ*CFI* = .00, Δ*RMSEA* = .00] and ΔJCR [χ^2 (130) = 169.83, *p* (>χ^2) = .06, Δ*CFI* = .00, Δ*RMSEA* = .00].

Taken together, results indicated that meaningful comparisons of change variables could be made across condensed family stages groups because all scales met or exceeded the requirements for scalar invariance or for partial scalar invariance. Due to the partial scalar invariance found for ΔWFB, ΔJC, and ΔJCR, after primary multi-group analyses that included these variables were conducted, a secondary set of analyses were conducted in which the intercept of WFB item 1 (for ΔWFB), job crafting item 6 (for ΔJC), and job crafting item 12 (for ΔJCT) were freed to vary across condensed family stage groups. In secondary analyses, item residual variances were also allowed to vary across groups for ΔWFB, as strict partial invariance did not hold. Full results of multi-group measurement invariance tests of change variables are presented in Table 6.

Descriptive Statistics. Observed study variable means, standard deviations, scale reliabilities, and intercorrelations are presented in Table 10. All scales at T1 and T2 displayed moderate to high reliability, with Cronbach's alpha values ranging from α = .82 to .93. The complete set of intercorrelations between observed and latent variables (estimated in *Hypothesis 5*) for the longitudinal analysis sample are displayed in Table 10. Means and standard deviations of study variables by family stage are presented in Table 11 (see Appendix D4 for means and standard deviations by condensed family stage).

Hypothesis Testing

Hypothesis 1 predicted that WFB would differ across family stage, such that WFB would be highest in the stages associated with no children (establishment and empty nest), next highest in the stages associated with older children (school-age and teenage), and lowest in the stages

associated with younger children (very young child and preschool). A one-way ANOVA was conducted [$F(5, 1405) = 89.80$, $p < .01$] and Levene's test indicated that the assumption of homogeneity was not violated [$F(5, 1405) = 2.09$, $p = .06$]. Results indicated that family stage had a significant main effect on WFB. Three planned contrasts were conducted to test for specific differences between groups. Results of planned contrasts indicated that the no children stages had higher WFB than all other stages [$t(1405) = 3.00$, $p < .01$], that the older child stages had higher WFB than the younger child stages [$t(1405) = 2.32$, $p < .05$], and that the younger child stages had lower WFB than all other stages [$t(1405) = 3.28$, $p < .01$]. The results of the ANOVA and planned comparisons provided support for *Hypothesis 1*.

Upon examination of WFB means by family stage (displayed in Table 9) in conjunction with results of the planned contrasts, four post-hoc comparisons were conducted to further clarify the nature of WFB differences by family stage groups. The first post-hoc indicated that the teenage and empty nest stages (N = 660, $M = 3.52$, $SD = .93$) had significantly higher WFB [$t(1,405) = 7.24$, $p < .01$] than the four preceding stages (N = 751, $M = 3.03$, $SD = .97$). The second post-hoc indicated that the empty nest stage (N = 519, $M = 3.56$, $SD = .95$) had significantly higher WFB [$t(1,405) = 8.77$, $p < .01$] than all other stages (N = 892, $M = 3.08$, $SD = .96$). The third post-hoc indicated that the teenage stage (N = 141, $M = 3.34$, $SD = .86$) had significantly higher WFB [$t(1,405) = 3.51$, $p < .01$] than the four preceding stages (N = 751, $M = 3.03$, $SD = .97$). The fourth post-hoc indicated that the empty nest stage had significantly higher WFB than the teenage stage $t(1,405) = 2.44$, $p < .01$]. The results of post-hoc group comparisons indicated that WFB was higher in the final two family stages, highest in the final stage, and equal among the first four stages (these relationships are depicted in Figure 7).

Because progression into later family stages is conceptually related to aging and WFB T1 is correlated with age (r = .25, p < .01), it was possible that group differences on WFB seen here were driven by age, as opposed to family stage. If that were the case, it would be expected that the correlation between age and WFB would remain significant across all family stages. However, in the present study, a significant correlation between age and WFB was only present in the teen (r = .17, p <.05) and empty nest (r = .26, p <.01) family stages. This suggested that the family stage group differences on WFB were independent of the effects of age on WFB. In addition, all *Hypothesis 1* planned comparisons and post-hoc analyses were re-conducted using the condensed family stages and results did not differ from those that used all six family stages (see Appendices D5 and D6), with the exception that age was negatively correlated with WFB within the younger child family stage (r = -.13, p < .01) and the correlation was no longer significant within the older child stage (r = .08, p = .10). These analyses were also re-computed using an upper age limit of 35 years old for the establishment family stage and results did not differ from results found using an upper age limit of 45 years old. However, when analyses were re-conducted using condensed family stages and an establishment upper age limit of 35 years old, one difference was identified. Specifically, the empty nest stage had significantly higher WFB than all other groups, and the younger child stage had lower WFB than the older child stage, however the establishment stage did not significantly differ from either the older or younger child stages (see graphical depiction in Appendix D7).

Hypothesis 2 predicted that T1 WFB was positively correlated with T1 job crafting. Results of correlation analyses supported that WFB was positively correlated with job crafting overall (r = .14, p < .01) and with the facets (ranging from r = .14 to .16, p < .05). *Hypothesis 3* predicted that T1 job crafting would remain positively correlated with WFB after one year at T2.

Results of time-lagged correlation analyses supported that overall job crafting (r = .17, p < .01), and the JCC (r = .11, p < .05), and the JCR (r = .19, p < .01) facets were positively correlated with WFB one year later. However, the correlation between T1 JCT and T2 WFB was not significant (r = .08, p = .16).

Hypothesis 4 proposed that T1 role prioritization moderated the relationship between T1 job crafting and T2 WFB, such that the association between job crafting and WFB was stronger for individuals who reported higher levels of work prioritization. This hypothesis was tested with a two-step hierarchical moderated regression with T2 WFB as the dependent variable. T1 job crafting and role prioritization were entered in Step 1, and the interaction between T1 job crafting and role prioritization was entered in Step 2. When the regression was initially estimated, tolerance values (ranging from .02 to .08) and variance inflation factor (VIF) values (ranging from 11.46 to 23.61), indicated that multicollinearity may have affected the results, as tolerance values < .10 and VIF values > 10 indicate the threat of multicollinearity. Multicollinearity can produce moderated regression results that are inaccurate or difficult to interpret. In order to reduce multicollinearity and estimate more accurate beta weights, predictor variables were mean centered and regressions were re-estimated. After centering, tolerance (ranging from .97 to .99) and VIF (ranging from 1.00 to 1.02) values indicated multicollinearity was reduced. A Q-Q plot of unstandardized residuals indicated that residuals were normally distributed. Results indicated that the regression was significant at Step 1 [F(2, 332) = 12.21, p < .01] and Step 2 [F(3, 331) = 8.26, p < .01]. In Step 2, T1 role prioritization (B = -.22, p < .01) and job crafting (B = .27, p < .01) significantly predicted 7% of the variance in WFB T2. However, *Hypothesis 4* was not supported, because the interaction effect between T1 job crafting

and role prioritization on T2 WFB was non-significant (B = .06, p = .52), and because Step 2 was not statistically significant from Step 1 (ΔF = .41, p = .52).

The mean-centered moderated regression analysis was then estimated separately for each facet of job crafting. For JCC, Step 1 [$F(2, 332) = 9.00$, $p < .01$] and Step 2 [$F(3, 331) = 6.03$, $p < .01$] were significant, but models were not significantly different (ΔF = .14, p = .71). At Step 2, results mirrored the relationship of the job crafting scale and WFB, such that T1 role prioritization (B = -.22, $p < .01$) and T1 JCC (B = .13, $p < .01$) significantly predicted 5% of the variance in WFB T2, but the interaction between them was non-significant (B = .02, p = .71). For JCT, Step 1 [$F(2, 332) = 7.92$, $p < .01$] and Step 2 [$F(3, 331) = 5.44$, $p < .01$] were significant. However, models did not differ significantly (ΔF = .49, p = .48), and neither T1 JCT (B = .10, p = .12) nor the interaction between T1 JCT and T1 role prioritization (B = -.05, p = .48) significantly predicted WFB T2.

For JCR, Step 1 [$F(2, 332) = 12.21$, p < .01] and Step 2 [$F(3, 331) = 9.26$, $p < .01$] were significant, and models differed significantly (ΔF = 3.92, $p < .05$), indicating that the addition of role prioritization as a moderator significantly improved the prediction of WFB T2 by accounting for an additional 1% of variance. Step 2 results indicated that T1 JCR (B = .22, $p <$ .01), T1 role prioritization (B = -.19, $p < .01$), and the interaction (B = .13, $p < .05$) between them significantly predicted 9% of the total variance in WFB T2. The interaction was in the predicted direction, such that when JCR was low, individuals that prioritized work over family and individuals that prioritized roles equally had lower WFB than those that prioritized family over work. When JCR was high WFB did not vary by role prioritization. In addition, conditional effects estimated using the SPSS PROCESS macro (model 1; Hayes, 2017), indicated that the effect of JCR on WFB was significant for participants who prioritized work over family (B = .35,

$p < .01$) and those that prioritized roles equally (B = .22, $p < .01$), but not for those that prioritized family over work (B = .10, $p = .23$).

Overall, hierarchical results provided support for *Hypothesis 4* with regards to JCR only. Full results of all moderated regressions are presented in Table 10; Figure 8 depicts a graphic representation of all models, and Figure 9 depicts the effect of JCR on WFB moderated by role prioritization. In addition, while only one significant interaction with role prioritization was identified, post-hoc analyses, in which job crafting was entered in Step 1, role prioritization in Step 2, and the interaction variable in Step 3, highlighted the unique importance of role prioritization on WFB, as Steps 1 and 2 differed significantly for job crafting ($\Delta F = 14.32$, $\Delta R^2 = .04$, $p < .01$), JCR ($\Delta F = 13.98$, $\Delta R^2 = .04$, $p < .01$), and JCC ($\Delta F = 13.86$, $\Delta R^2 = .04$, $p < .01$).

Hypothesis 5 predicted that ΔJC would be associated with ΔWFB. This prediction was tested by comparing the fit of a baseline Model (M_0; see Appendix E for a description of all study Models), in which change variables were estimated and the predictive path from ΔJC on ΔWFB was constrained to zero, to the fit of Model 1 (M_1) in which the predictive path was freely estimated. Due to the centrality of estimates of changes over time in focal analyses, a clear understanding of the nature of each change variable was needed in order to properly assess the meaning of change-to-change effects. Thus, before analyses involving change variables estimated with the 2W-LCS method were conducted, individual univariate latent change score models were fitted for ΔJC, ΔJCT, ΔJCC, ΔJCR, and ΔWFB in order to obtain estimates of the mean and variance of each change variable. Estimates of variance and mean must be obtained in univariate analyses, because variance of latent change variables are treated as residual variance in multivariate 2-WLCS models and cannot be clearly interpreted. Henk and Castro-Schilo (2016) suggest that the means and variances of each latent change factor can be estimated by

modeling, "all factor loadings and intercept [to be] equal across time, [with] the mean and variance of the latent variable at Time 1…fixed to 0 and 1" and "the mean and variance of the latent variable at Time 2 were fixed to 0".

Using this method, the univariate model of ΔWFB was estimated and was found to fit the data well [χ^2 (43) = 125.64, $p < .01$, *RMSEA* = .08, *CFI* = .98]. The mean of ΔWFB was found to be non-significant, $\mu^2_{\Delta\ WFB}$ = -.08, $p = .06$, but the variance was significant, $\sigma^2_{\Delta\ WFB}$ = .52, $p <$ .01. The univariate model of ΔJC did not fit the data well [χ^2 (274) = 1554.35, $p < .01$, *RMSEA* = .12, *CFI* = .67]. The unstandardized mean of ΔJC was non-significant, $\mu^2_{\Delta\ JC}$ = -.04, $p = .40$, but the unstandardized variance was significant, $\sigma^2_{\Delta\ JC}$ = .53, $p < .01$. A non-significant mean indicated that the sample did not uniformly increase or decrease on WFB or job crafting from T1 to T2. However, because variance was significant, this indicated that within-person changes did take place and that there was enough longitudinal variance among these variables to merit an examination of the multivariate latent change score models even though no clear patterns of mean increases or decreases were identified.

This pattern of non-significant means and significant variance was mirrored for all change variables for the facets of job crafting. The univariate ΔJCT [χ^2 (26) = 54.66, $p < .01$, *RMSEA* = .06, *CFI* = .98], ΔJCC [χ^2 (26) = 59.39, $p < .01$, *SRMSEA* = .06, *CFI* = .97], and ΔJCR [χ^2 (26) = 61.19, $p < .01$, *RMSEA* = .06, *CFI* = .97] all fit the data well. The means of ΔJCT ($\mu^2_{\Delta\ JCT}$ = -.01, $p = .70$), ΔJCT ($\mu^2_{\Delta\ JCC}$ = -.03, $p = .60$), and ΔJCR ($\mu^2_{\Delta\ JCR}$ = -.05, $p = .20$) were all non-significant, while their respective variances were significant ($\sigma^2_{\Delta\ JCT}$ = .67, $p < .01$; $\sigma^2_{\Delta\ JCC}$ = .75, $p < .01$; $\sigma^2_{\Delta\ JCR}$ = .52, $p < .01$). A summary of the means and variances for each univariate latent change variable is presented in Table 11.

Next, M_0 and M_1 were estimated for ΔJC, ΔJCT, ΔJCC, and ΔJCR. $M1_{\Delta JC}$ fit the data poorly [χ^2 (553) = 1960.34, $p < .01$, *RMSEA* = .09, *CFI* = .81], while $M1_{\Delta JCT}$ [χ^2 (145) = 241.96, $p < .01$, *RMSEA* = .05, *CFI* = .98], $M1_{\Delta JCC}$ [χ^2 (145) = 270.02, $p < .01$, *RMSEA* = .05, *CFI* = .97], and $M1_{\Delta JCR}$ all fit the data well [χ^2 (145) = 287.12, $p < .01$, *RMSEA* = .05, *CFI* = .97]. With the exception of the $M_{1\Delta JCT}$ [$\Delta\chi^2$ (1) = 0.153, $p = .70$, ΔRMSEA =.00, ΔCFI =.00], comparisons of M_0 and M_1 were all significant, which indicated that the addition of the predictive paths of ΔJC [($\Delta\chi^2$ (1) = 5.549, $p < .01$, ΔRMSEA =.00, ΔCFI =.00] , ΔJCC [($\Delta\chi^2$ (1) = 10.59, $p < .01$, ΔRMSEA =.00, ΔCFI =.00)], and ΔJCR [($\Delta\chi^2$ (1) = 6.49, $p < .01$, ΔRMSEA =.00 , ΔCFI =.00] on ΔWFB enhanced prediction of ΔWFB and overall model fit. Results supported *Hypothesis 5*, as ΔJC significantly predicted 2.3% of the variance in ΔWFB (B = .19, $p < .05$). This suggested that a one SD increase on job crafting (.53) was associated with a .15 SD increase on WFB (.11). In addition, while ΔJCT on ΔWFB was non-significant (B = -.03, $p = .70$), ΔJCC significantly predicted 4.5% of the variance of ΔWFB (B = .20, $p < .01$), and ΔJCR significantly predicted 3.5% of the variance in ΔWFB (B = .26, $p < .01$). Thus, a one SD increase on JCC (.87) or JCR (.52) was associated with a .21 or .19 SD increase on WFB (.15 or .19). Full M_0 and M_1 fit statistics and model comparison results are presented in Table 12 and estimates of M_1 are depicted in Figure 8.

Hypothesis 6 predicted that T1 role prioritization would moderate the relationship between ΔJC and ΔWFB, such that the relationship would be stronger for individuals that reported more prioritization of work. This hypothesis was tested by including a latent interaction variable in the 2-WLCS model. The latent interaction variable (ΔJC*role prioritization) was modeled using the quasi-maximum likelihood method (Klein & Moosbrugger, 2000) via the

"XWITH" command in Mplus. Fit statistics have not yet been developed for the quasi-maximum likelihood method, so the following two-step process suggested by researchers was used to assess relative fit of interaction models estimated using the quasi-maximum likelihood method. In the first step (M_2), maximum likelihood estimation was used to estimate the independent variables and the interaction term was excluded from the model. In the second step (M_3), quasi-maximum likelihood estimation was used to model the interaction variable and a predictive path from the interaction variable on the dependent variable. M_2 provided conventional and alternative fit statistics that were used to assess general model fit and for comparisons with competing models, while M_3 only provided log-likelihood, *AIC*, and *BIC* values. Then, the *D* statistic was calculated [D = -2(log-likelihood$_{M2}$ - log-likelihood$_{M3}$) and was used to perform an LRT to determine if the more parsimonious M_2 "represents a significant loss in fit relative to the more complex model" (Maslowsky, Jager, & Hemken, 2015; Klein & Moosbrugger, 2000). *D* closely approximates the χ^2 distribution and significance of an LRT based on *D* is assessed based on critical values along the χ^2 distribution and differences in free parameters between M_2 and M_3. If the LRT between M_2 and M_3 was significant, and M_2 indicated good model fit, this indicated that M_3 was also a well-fitting model, although, a conclusion about the comparative fit between M_2 and M_3 cannot be drawn (Maslowsky et al., 2015). Thus, in order to test *Hypothesis 6*, first a baseline model (M_{0RP}), in which the predictive paths on ΔWFB were constrained to zero for role prioritization, was estimated and model fit was compared to M_2, and then the fit of M_2 was compared to the fit of M_3. Support was provided for the inclusion of the interaction effect if both the LRTs between M_3 and M_2, and M_2 and M_{0RP} were significant.

Fit statistics from $M_{2\Delta JC}$ indicated the model fit the data fairly poorly [χ^2 (586) = 2013.09, $p < .05$, *RMSEA* = .09, *CFI* = .80], while $M_{2\Delta JCT}$ [χ^2 (162) = 269.03, $p < .01$, *RMSEA* = .04, *CFI*

= .98], $M_{2\Delta JCC}$ [χ^2 (162) = 304.54, p < .01, *RMSEA* = .05, *CFI* = .97], and $M_{2\Delta JCR}$ [χ^2 (162) = 316.42, p < .01, *RMSEA* = .05, *CFI* = .97] were found to fit the data well. The paths of role prioritization on ΔWFB were significant in $M_{2\Delta JC}$ (B = -.09, p < .05), $M_{2\Delta JCT}$ (B = -.10, p < .05), and $M_{2\Delta JCR}$ (B = -.09, p < .05), but not in $M_{2\Delta JCC}$ (B = -.08, p = .06). With the exception of the $M_{2\Delta JCC}$ [$\Delta\chi^2$ (1) = 3.65, p = .06, ΔRMSEA =.00, ΔCFI =.00], comparisons of M_{0RP} and M_2 were all significant, which indicated that the addition of the predictive paths of role prioritization on ΔWFB enhanced the fit of models of $M_{2\Delta JC}$ [($\Delta\chi^2$ (1) = 4.28, p < .05, ΔRMSEA =.00, ΔCFI =.00], $M_{2\Delta JCT}$ [($\Delta\chi^2$ (1) = 5.02, p < .05, ΔRMSEA =.00, ΔCFI =.00)], and $M_{2\Delta JCR}$ [($\Delta\chi^2$ (1) = 4.91, p < .05, ΔRMSEA =.00 , ΔCFI =.00]. Next, the interaction term was modeled, and model fit was compared between M_2 and M_3. Results indicated that excluding the interaction between role prioritization and changes in job crafting did not represent a significant loss of information and therefore its inclusion was not supported in $M_{3\Delta JC}$ [*D* (1) = -.01, p cannot be calculated as *D* is negative], $M_{3\Delta JCT}$ [*D* (1) =.26, p = .61], $M_{3\Delta JCC}$ [*D* (1) = .00, p = 1.0], nor $M_{3\Delta JCR}$ [*D* (1) = .03, p = .86]. Overall, results provided no support for *Hypothesis 6*, but did suggest that the inclusion of role prioritization as an additional independent variable significantly increased prediction of ΔWFB. Full results are presented in Table 12.

Hypothesis 7 predicted that the strength of the path coefficient of ΔJC on ΔWFB would differ for employees in different family stages, such that the relationship would be strongest for the very young and preschool family stages, and weakest for the establishment and empty nest family stages. In order to examine if the strength of the path coefficient of ΔJC on ΔWFB varied by family stage, first univariate models of all change variables were estimated for each of the condensed family stages. Across all condensed family stages, all change variables had significant variances (*M* = .48, *SD* = .13) and all variables had non-significant means (*M* = -.06, *SD* = .08).

This suggests that there was significant within-person variance on change variables and that examination of the multivariate 2-WLCS models was merited. See Table 11 for estimates of means and variances by condensed family stage.

In order to test if path coefficient strength varied across condensed family stages, 2-WLCS models with various path constraints were estimated and compared in a two-step process. First, fit statistics previously estimated in M_1 indicated that, with the exception of $M_{1\Delta JC}$, models displayed good fit for the entire sample when not segregated by family stage groups. In addition, tests of full and partial measurement invariance indicated that meaningful differences on change variables could be estimated with confidence across family stage groups. With those assurances, M_4, in which all parameters except predictive paths from ΔJC on ΔWFB were constrained to be equal across groups, and M_5, in which all parameters were constrained to be equal across groups, were estimated. Next the fit of M_4 and M_5 was compared with an LRT. If the LRT was non-significant, it would suggest that the more relaxed M_5 model, in which predictive paths were constrained to be equal, was favored. However, if the LRT was significant, it would suggest that the more constrained, M_4, was preferred, thus providing support for *Hypothesis 7*, which predicted that the strength of predictive paths of ΔJC on ΔWFB varied significantly by family stage.

Next, $M_{4\Delta JC}$ [χ^2 (2437) = 4602.86, $p < .01$, *RMSEA* = .10, *CFI* = .73, *AIC* = 29136.04, *BIC* =29437.35] and $M_{5\Delta JC}$ [χ^2 (2440) = 4605.12, $p < .01$, *RMSEA* = .10, *CFI* = .73, *AIC* = 29132.29, *BIC* = 29422.17] were estimated, successfully converged, and were found to display poor model fit. A non-significant LRT [$\Delta\chi^2$ (3) = 2.26, $p = .52$, Δ*RMSEA* = .00, Δ*CFI* = .00] indicated that $M_{5\Delta JC}$ was preferred over $M_{4\Delta JC}$. This suggested that the effect of ΔJC on ΔWFB (B = .20, $p < .05$) did not differ across family stage groups, providing no support for *Hypothesis 7*.

M_4 and M_5 were then estimated ΔJCT, ΔJCC, and ΔJCR. All models converged and fit the data well, with *RMSEA* values ranging from .05 to .08 (*M* = .06, *SD* = .01) and *CFI* values ranging from .93 to .97 (*M* = .94, *SD* = .01) across models. See Table 12 for complete details on M_4 and M_5 model fits. A series of LRTs comparing $M_{4\Delta JCT}$ and $M_{5\Delta JCT}$ [$\Delta\chi^2$ (3) = .34, *p* = .95, Δ*RMSEA* = .00, Δ*CFI* = .00], $M_{4\Delta JCC}$ and $M_{5\Delta JCC}$ [$\Delta\chi^2$ (3) = 4.97, *p* = .17, Δ*RMSEA* = .00, Δ*CFI* = .00], and $M_{4\Delta JCR}$ and $M_{5\Delta JCR}$ [$\Delta\chi^2$ (3) = 7.22, *p* = .07, Δ*RMSEA* = .00, Δ*CFI* = .00] all indicated that M_5 was preferred over M_4. These results suggested that the strength of the predictive path coefficients from ΔJCT (B = -.02, *p* = .73), ΔJCC (B = .20, *p* < .01), and ΔJCR (B = .26, *p* < .05) ΔWFB did not vary significantly across condensed family stage groups, providing no support for *Hypothesis 7*.

In addition, measurement invariance tests across condensed family stages and comparisons of M_4 and M_5 made using an establishment upper age limit of 35 years old were conducted, and no differences in results from primary analyses were identified (see Appendices D8 and D9). Secondary M_4 and M_5 estimations and model fit comparisons were also conducted in accordance with results of partial measurement invariance tests, and all results were consistent with primary analyses (see Appendix D10).

Exploratory Analyses

Next a series of exploratory analyses were conducted. First, the strength of path coefficients from ΔJC to ΔWFB were examined across gender. Second, the strength of path coefficients from ΔJC to ΔWFB were examined across condensed family stage and gender groups. Third, the effects of change in role prioritization (ΔRP) as moderator on the effect of ΔJC on ΔWFB was tested.

As an initial step, measurement invariance of change variables was assessed across gender. ΔJCR held for strict invariance [χ^2 (61) = 100.99, p = .28, Δ*CFI* = .00, Δ*RMSEA* = .00], while ΔWFB [χ^2 (93) = 191.17, p = .25, Δ*CFI* = .00, Δ*RMSEA* = .00] and ΔJCT [χ^2 (57) = 63.33, p = .21, Δ*CFI* = .00, Δ*RMSEA* = .00] held at the scalar level, all of which satisfied the requirements to confidently compare models across gender. ΔJC [χ^2 (557) = 1901.02, p = .16, Δ*CFI* = .00, Δ*RMSEA* = .00] and ΔJCC [χ^2 (53) = 70.58, p = .94, Δ*CFI* = .00, Δ*RMSEA* = .00] only held at the metric level. Partial measurement invariance was examined for those variables, and when the intercept of job crafting item 12 was freed to vary across gender groups, partial scalar invariance was established for ΔJC [χ^2 (568) = 1918.08, p = .11, Δ*CFI* = .00, Δ*RMSEA* = .00]. However, ΔJCC still failed to meet the standards for partial scalar invariance [χ^2 (56) = 78.75, p = .04, Δ*CFI* = .00, Δ*RMSEA* = .00] after two of the JCC items that displayed the largest deviations across gender (job crafting items 5 and 8) were freed to vary across groups. For these reasons, analyses of ΔJCC across gender were not conducted and secondary analyses were conducted in accordance with partial invariance results. See Table 13 for complete results of measurement invariance tests across gender.

Next tests of measurement invariance across gender and family stage were conducted. Models of ΔJC did not converge across groups, so analyses examining family stage and gender groups were conducted exclusively on the subscales of job crafting. Measurement invariance tests revealed that ΔWFB [$\Delta\chi^2$ (35) = 43.35, p = .16, Δ*CFI* = .00, Δ*RMSEA* = .00] and ΔJCT [$\Delta\chi^2$ (28) = 27.88, p = .47, Δ*CFI* = -.02, Δ*RMSEA* = .01] met the requirements for scalar invariance, but ΔJCC [$\Delta\chi^2$ (21) = 26.65, p = .00, Δ*CFI* = -.02, Δ*RMSEA* = .01] and ΔJCR [$\Delta\chi^2$ (28) = 52.01, p = .01, Δ*CFI* = -.02, Δ*RMSEA* = .01] only met the requirements for metric invariance. However, both ΔJCC and ΔJCR met the requirements for partial scalar invariance

after the intercepts of job crafting items 5 and 6 were freed to vary across groups for ΔJCC [$\Delta\chi^2$ (14) = 22.49, p = .07, Δ*CFI* = -.01, Δ*RMSEA* = .00] and items 9 and 12 were freed for ΔJCR [$\Delta\chi^2$ (14) = 14.52, p = .41, Δ*CFI* = .00, Δ*RMSEA* = .00]. This suggested that meaningful analyses could be conducted across family stage and gender groups with confidence. Secondary analyses were conducted in accordance with the results of partial invariance findings to determine if results differed when the respective intercepts were freed to vary across groups. Full measurement invariance results across family stage and gender groups are presented in Table 14.

In the first set of exploratory analyses, path coefficients of ΔJC on ΔWFB were then tested across gender. Analyses were conducted using the two-step method previously described, in which the fit of a baseline model (M_6), in which all parameters except the predictive paths from ΔJC on ΔWFB were constrained across gender, was compared to the fit of a second model (M_7), in which all paths were constrained across gender. $M_{6\Delta JC}$ [χ^2 (1181) = 2802.79, p < .01, *RMSEA* = .09, *CFI* = .78, *AIC* = 29024.28, *BIC* =28317.75] and $M_{7\Delta JC}$ [χ^2 (1182) = 2806.82, p < .01, *RMSEA* = .09, *CFI* = .78, *AIC* = 29026.32, *BIC* = 28315.97] were estimated, successfully converged, and were found to display poor model fit. M_6 and M_7 were also estimated ΔJCT and ΔJCR, and all models converged and fit the data moderately well, with *RMSEA* values ranging from .05 to .06 (*M* = .05, *SD* = .01) across models, and *CFI* values ranging from .96 to .97 (*M* = .96, *SD* = .00). See Table 15 for full fit statistics.

Results of a series of LRTs comparing $M_{6\Delta JC}$ and $M_{7\Delta JC}$ [$\Delta\chi^2$ (1) = 4.03, p < .05, Δ*CFI* = .00, Δ*RMSEA* = .00] and $M_{6\Delta JCR}$ and $M_{7\Delta JCR}$ [$\Delta\chi^2$ (1) = 4.20, p < .05, Δ*CFI* = .00, Δ*RMSEA* = .00] were significant, but the comparison of $M_{6\Delta JCT}$ and $M_{7\Delta JCT}$ [$\Delta\chi^2$ (1) = .68, p = .41, Δ*CFI* = .00, Δ*RMSEA* = .00] was non-significant. However, when secondary analyses were conducted in accordance with results of partial measurement analyses, the LRT comparing $M_{6\Delta JC}$ and $M_{7\Delta JC}$

was no longer significant [$\Delta\chi^2$ (1) = 3.71, p = .05, ΔCFI = .00, $\Delta RMSEA$ = .00]. Taken together, results suggested that the strength of the path coefficient of ΔJCR on ΔWFB varied significantly by gender, such that the effect was significant for women (B = .57, p < .01) but not for men (B =.14, p = .26). When the predictive path was constrained across gender, ΔJCR predicted 4.1% of the variance in ΔWFB, and when the path was freely estimated, ΔJCR predicted an additional 10.8% of variance in in ΔWFB. The same pattern of results, in which the coefficient of ΔJC on ΔWFB was significant for women (B = .46, p < .01) but not men (B = .11, p = .26) was found in $M_{7\Delta JC}$, and an additional 9.4% of variance in ΔWFB was accounted for when ΔJC was freely estimated across gender (total of 12.3%). However, this result should be interpreted with caution as the difference between $M_{6\Delta JC}$ and $M_{7\Delta JC}$ was not significant when the results of partial invariance testing were included, indicating that comparisons of ΔJC across gender may be unreliable. Full results of M_6 and M_7 comparisons displayed in Table 15.

In the second series of exploratory analyses, the strength of path coefficients from ΔJCT, ΔJCC, and ΔJCR on ΔWFB were tested across family stage and gender by extending the previously used two-step method into a four-step method. The four-step method included a baseline model (M_8), in which all parameters were free to vary across family stage and gender groups. Each of the other three models varied slightly, such that predictive paths were either constrained across family stage groups (M_9), gender groups (M_{10}), or across both gender and family stage groups (M_{11}). A series of LRTs were then conducted, in which M_8 was compared to M_9, M_{10}, and M_{11}. If all three LRTs were significant, or if only the comparison of M_8 and M_{11} were significant, that would indicate that M_8 was preferred and that the strength of path coefficients on ΔWFB varied by family stage and gender groups. However, if the comparison of M_8 to M_{11} was significant, but only one of the comparisons of M_8 to M_9 or M_{10} were significant,

it would indicate that freeing the predictive paths across either gender (if LRT of M_8 to M_{10} non-significant and M_8 to M_9 significant) or family stage groups (if LRT of M_8 to M_{10} significant and M_8 to M_9 non-significant) was what was driving the difference between M_8 and M_{11} and that the strength of path coefficients on ΔWFB did not vary by family stage and gender groups.

Models 8 through 11 were estimated for ΔJCT, ΔJCC, and ΔJCR (though M_9 was not estimated for ΔJCC as it did not show measurement invariance across gender groups), and all models converged and displayed relatively poor fit, with *RMSEA* values ranging from .11 to .12 (*M* = .11, *SD* = .00) across models, and *CFI* values ranging from .83 to .86 (*M* = .85, *SD* = .01). See Table 15 for full fit statistics.

Results of a series of LRTs that compared $M_{8\Delta JCT}$ with $M_{11\Delta JCT}$ [$\Delta\chi^2$ (7) = 4.39, p = .73, Δ*CFI* = .00, Δ*RMSEA* = .00], $M_{9\Delta JCT}$ [$\Delta\chi^2$ (6) = 3.74, p = .71, Δ*CFI* = .00, Δ*RMSEA* = .00], and $M_{10\Delta JCT}$ [$\Delta\chi^2$ (4) = 4.12, p = .39, Δ*CFI* = .00, Δ*RMSEA* = .00] were non-significant. In general, results suggested ΔJCT was not a very good predictor of ΔWFB. Results of a series of LRTs that compared $M_{8\Delta JCR}$ with $M_{11\Delta JCR}$ [$\Delta\chi^2$ (7) = 15.84, p < .05, Δ*CFI* = .00, Δ*RMSEA* = .00] was significant, but comparisons of $M_{8\Delta JCR}$ with $M_{9\Delta JCR}$ [$\Delta\chi^2$ (7) = 11.10, p = .09, Δ*CFI* = .00, Δ*RMSEA* = .00] and $M_{10\Delta JCR}$ [$\Delta\chi^2$ (4) = 9.34, p = .05, Δ*CFI* = .00, Δ*RMSEA* = .00] were both non-significant. This suggested that for ΔJCR, the strength of path coefficients differed by family stage and gender groups, and differences were only detected when groups were split by family stage and gender. With regards to specific differences, $M_{8\Delta JCR}$ indicated that the path coefficients of ΔJCR on ΔWFB were non-significant for all men and only significant for women in the older child family stages (B = 1.11, p < .01).

Results of a series of LRTs that compared $M_{8\Delta JCC}$ with $M_{11\Delta JCC}$ [$\Delta\chi^2$ (7) = 21.24, p < .01, Δ*CFI* = .00, Δ*RMSEA* = .00] and $M_{10\Delta JCC}$ [$\Delta\chi^2$ (4) = 14.84, p < .01, Δ*CFI* = .00, Δ*RMSEA* = .00]

were both significant, and a comparison of $M_{8\Delta JCC}$ with $M_{9\Delta JCC}$ could not be conducted due to measurement invariance issues. Taken together, results indicated that $M_{8\Delta JCC}$, in which the strength of path coefficients from ΔJCC on ΔWFB was free to vary across gender and family stage groups was preferred to a model in which paths were only free to vary across family stage groups and a model in which paths were constrained to be equal across family stage and gender. With regards to group differences in $M_{8\Delta JCC}$, predictive path coefficients on ΔWFB were non-significant for men of all stages and only significant for women in the establishment (B = .83, $p < .01$), younger child (B = .51, $p < .01$) and older child (B = .55, $p < .01$) family stages. Results of M_8, M_9, M_{10}, and M_{11} comparisons were consistent across secondary analyses and full model comparisons are presented in Table 15. Figures 11 and 12 contain depictions of $M_{8\Delta JCC}$ and Figures 13 and 14 contain depictions of $M_{8\Delta JCR}$.

When examining the pattern of coefficient strengths by gender and family stage groups modeled in $M_{8\Delta JCC}$, it appeared plausible that the improvements in model fit seen when compared to $M_{11\Delta JCC}$ could have been accounted for by estimating coefficient strength differences by gender alone, as opposed to estimating by family stage groups or by an interaction between gender and family stage groups. However, because measurement invariance issues did not allow for coefficient strength differences by gender to be modeled ($M_{9\Delta JCC}$), changes in model fit that occurred after freeing predictive paths to vary across gender could not be compared to changes that occurred after freeing family stage groups, and this proposition could not be directly tested. However, when men were excluded from analyses in a post-hoc LRT, results indicated that among women, a model that included coefficient strength differences by family stage was preferred over a model that did not consider family stage [$\Delta\chi^2$ (3) = 12.74, p = .00, ΔCFI = .00, $\Delta RMSEA$ = .00]. Within the women-only preferred model that included family

stage differences, the pattern of coefficient strengths of ΔJCC on ΔWFB remained consistent with $M_{8\Delta JCC}$, in that predictive paths were significant among the establishment (B = .61, $p < .01$), younger child (B = .43, $p < .01$), and older child (B = .50, $p < .01$) family stages.

In the third and final set of exploratory analyses, ΔRP was considered as a possible moderator on the predictive relationship of ΔJC on ΔWFB. Because the role prioritization measure used here consisted of a single item, it was not possible to estimate ΔRP using the 2-WLCS method. For this reason, ΔRP was estimated using the residual change score method, in which the unstandardized residual of a regression of role prioritization T1 on role prioritization T2 was estimated and used as a proxy indicator of change over time (McArdle, 2009). The interaction between ΔRP and ΔJC on ΔWFB was tested in the same three-step process used in comparisons of M_{0RP}, M_2, and M_3. However, in this instance, the baseline model ($M_{0\Delta RP}$) included ΔJC and ΔRP as independent variables and the path of ΔRP on ΔWFB was constrained to zero and the path of ΔJC on ΔWFB was estimated. In $M_{12,}$ the predictive paths of ΔJC and ΔRP on ΔWFB were both estimated, and in M_{13} the interaction between ΔRP and ΔJC was estimated using the quasi-maximum likelihood method.

Fit statistics from $M_{12\Delta JC}$ indicated the model fit the data fairly poorly [χ^2 (586) = 2014.67, $p < .05$, *RMSEA* = .09, *CFI* = .80], while $M_{12\Delta JCT}$ [χ^2 (162) = 257.56, $p < .01$, *RMSEA* = .04, *CFI* = .98], $M_{12\Delta JCC}$ [χ^2 (162) = 294.42, $p < .01$, *RMSEA* = .05, *CFI* = .97], and $M_{12\Delta JCR}$ [χ^2 (162) = 312.02, $p < .01$, *RMSEA* = .05, *CFI* = .97] were found to fit the data well. Comparisons of $M_{0\Delta RP}$ and M_{12} were all significant, which indicated that the addition of the predictive paths of ΔRP on ΔWFB enhanced the fit of models of $M_{12\Delta JC}$ [($\Delta\chi^2$ (1) = 6.79, $p < .01$, ΔRMSEA =.00, ΔCFI =.00], $M_{12\Delta JCT}$ [($\Delta\chi^2$ (1) = 5.93, $p < .05$, ΔRMSEA =.00, ΔCFI =.00)], $M_{12\Delta JCC}$ [($\Delta\chi^2$ (1) = 7.55 $p < .01$, ΔRMSEA =.00, ΔCFI =.00)], and $M_{12\Delta JCR}$ [($\Delta\chi^2$ (1) = 7.53, $p < .01$, ΔRMSEA =.00,

ΔCFI =.00]. In addition, the paths of ΔRP on ΔWFB were significant in $M_{12\Delta JC}$ (B = -.14, p < .05), $M_{12\Delta JCT}$ (B = -.13, p < .05), $M_{12\Delta JCC}$ (B = -.15, p < .01), and $M_{12\Delta JCR}$ (B = -.15, p < .01). Next, the interaction term was modeled, and model fit was compared between M_{12} and M_{13}. Results indicated that excluding the interaction between ΔRP and ΔJC did not represent a significant loss of information and therefore its inclusion was not supported for $M_{13\Delta JC}$ [D (1) = 2.31, p =.13], $M_{13\Delta JCT}$ [D (1) = .24, p = .62], nor $M_{13\Delta JCR}$ [D (1) = 1.08, p = .30], but it was significant and supported for $M_{13\Delta JCC}$ [D (1) = 5.84, p < .05]. Thus, including the interaction term (B = -.21, p < .05) in the model with ΔJCC (B = .23, p < .01) and ΔRP (B = -.16, p < .01) accounted for an additional 4.2% of the variance in ΔWFB (for a total of 11.2%). Results indicated that increased JCC was associated with increased WFB when individuals increased prioritization of the home role (negative ΔRP); however, when individuals increased prioritization of the work role (positive ΔRP), the association between increased JCC and increased WFB was no longer significant. Fit statistics and model comparisons for M_{0RP}, M_2, and M_3 are presented in Table 16, and the moderated effects estimated in $M_{13\Delta JCC}$ are depicted with 95% confidence bands in Figure 15.

CHAPTER FOUR:

DISCUSSION

Historically, much of the research examining the WFI has viewed work-family phenomena through a static lens and has either overlooked or controlled for associations with specific family contextual variables. The primary purpose of this study was to contribute to the budding literature that conceptualizes perceptions of WFB as dynamic across the lifespan by directly investigating how mean levels of WFB varied across family stage. Results of proposed analyses found main effects of family stage on WFB in accordance with predicted patterns, supporting the claim that WFB was highest in the family stage that occurs before children are born and after children become independent adults, and that WFB was lowest in the stages associated with younger children that require higher caregiving demands. Although, post hoc analyses suggested a more complex relationship may exist; for example, individuals in the teenage family stage reported the same levels of WFB as those in the pre-child establishment family stage.

A secondary aim of the study was to propose that job crafting is a proactive strategy that individuals use to alter their own levels of WFB, and to demonstrate the soundness of this proposition with theoretical support and initial empirical tests. Significant and positive baseline, time-lagged, and change associations that supported the proposed relationship between job crafting and WFB were found. A tertiary aim of the study was to more deeply examine the nature

of the relationship between WFB and job crafting by considering associations with additional contextual variables. Proposed analyses largely failed to support that role prioritization acted as a moderator between job crafting and WFB, or that the effects of ΔJC on ΔWFB differed by family stage. However, exploratory analyses suggested that ΔRP may moderate the relationship between ΔWFB and ΔJCC, and that the effects of ΔJC on ΔWFB differed significantly across groups when gender was considered in conjunction with family stage.

Discussion of Results

WFB Across Family Stage. This study proposed that there were mean differences on WFB across family stage, such that WFB levels would vary in relative concurrence with the average levels of childcare demands associated with each stage. *Hypothesis 1* was supported, as there were significant main effects of family stage on WFB that followed the patterns predicted; specifically, the stages not associated with childcare reported higher WFB (establishment and empty nest) than all other stages, the stages associated with older children associated with moderate childcare demands (school-age and teenage) reported higher WFB than the stages associated with younger children that require the highest level of childcare demands (very young child and preschool), and the stages associated with younger children reported lower WFB than all other stages.

However, a series of post-hoc analyses clarified that mean WFB differed across the no-child stages, such that WFB was higher in the empty nest stage than in the teenage stage. These analyses suggested that the empty nest stage was significantly higher on WFB than all other groups, that the teenage stage was significantly higher on WFB than all remaining stages, but that WFB did not differ significantly among the establishment, young child, preschool, and school age stages. These results did not support the proposition that WFB would vary in accord

with the typical level of childcare demands associated with each family stage. In addition, results raise the question of the reasons why the pre-teenage, teenage, and post-teenage stages vary of WFB. One potential explanation could be that definitions of what constitutes balance differs systematically across family stages, such that it is more difficult and less common for individuals to perceive a sense of balance in early career and child rearing stages. If this were the case, as individuals across family stages referenced their peer groups when considering their subjective definitions of WFB, those in later stages may feel it is easier to achieve a sense of balance and those in the teenage and empty nest stages would be expected to experience a greater level of WFB on average.

Because WFB was highest in the last two stages, and because progression through family stages is conceptually related to aging, an alternative interpretation of results could suggest that the main effects of family stage on WFB could be attributed solely to age differences between family stages. Yet, this alternative explanation seems unlikely, as age was only significantly correlated with WFB in the teenage and empty nest stages, despite participants of each stage being significantly older on average than participants in each preceding stage [$F(5,1400) = 1078.43$, $p < .01$; with the exception of the establishment and very young child stages, which did not differ on mean age]. Further, when WFB was examined across the four condensed family stages, WFB did not differ between the establishment stage and either the younger nor older child stages despite significant differences in mean age across all groups [$F(3,1402) = 1571.23$, $p < .01$]. Thus, this mix of results seems to suggest that the family stage differences on WFB found here cannot be simply be reduced to the effects of age on WFB.

Job Crafting and WFB. Results of this study supported *Hypotheses 2* and *3*, as job crafting was positively correlated to WFB at baseline ($r = .14$) and after a one-year lag ($r = .17$).

When correlational analyses were conducted at the job crafting facet level, all results remained consistent, with the exception that the correlation between T1 JCT and T2 WFB was not significant (r = .07, p = .16). These provide initial evidence of the relationship between job crafting and WFB, and are aligned with earlier studies that found correlations of a similar magnitude between WLB crafting and SWLB (Gravador & Teng-Calleja, 2018), and between the crafting of school-work tasks and satisfaction with "study-personal/family" balance (Mihelič & Aleksić, 2017).

Hypothesis 5 predicted that ΔJC predicted ΔWFB. This hypothesis was supported, as ΔJC predicted 2.3% of the variance in ΔWFB. A similar pattern was found at the facet level, such that ΔJCC and ΔJCR predicted 3.5% and 4.5% of the variance in ΔWFB, although the relationship between ΔJCT and ΔWFB was non-significant. These results provide evidence to suggest that employees may engage in job crafting as an individual strategy to alter their own levels of WFB. While the directionality of effects between ΔJC and ΔWFB cannot be established based on this study, results do provide some empirical evidence to support that ΔJC predicts ΔWFB, as exploratory analyses found that ΔWFB did not significantly predict ΔJC. The proposed directionality is theoretically aligned with BBT, which suggests that as individuals craft their jobs they build resources which may help increase WFB via increased positive spillover and decreased negative spillover (Fredrickson, 2001).

Hypothesis 7 proposed that the relationship of ΔJC on ΔWFB varied by family stage, such that the effect was strongest for those in the family stages associated with rearing young children and weakest in the stages not associated with child rearing. However, a series of model comparisons indicated that models in which the effects of ΔJC, at the scale and facet level, on

ΔWFB was constrained across family stage were preferred. Thus, no significant differences could be identified between family stage groups and no support was found for *Hypothesis 7*.

Exploratory analyses tested if the effects of ΔJC on ΔWFB varied by gender. At the facet level, results provided no support for gender differences on the effects of ΔJCT or ΔJCC. But, for relational crafting, the preferred model allowed the path of ΔJCR on ΔWFB to vary by gender, and when gender differences were estimated, ΔJCR significantly predicted 14.9% of the variance ΔWFB for women and had a non-significant relationship for men. This pattern of relationships was mirrored by ΔJC, however statistical significance did not hold when results of partial measurement invariance were modeled and should thus be interpreted with extreme caution.

Next exploratory analyses examined if the effect of ΔJC on ΔWFB varied by gender and family stage. Again, ΔJCT was found to be a poor predictor of ΔWFB and poor model fit suggested that analyses should not be conducted at the overall scale level. However, results suggested that the effects of ΔJCC and ΔJCR differed significantly across family stage and gender groups. Specifically, the path of ΔJCC on ΔWFB was only significant for women in the establishment, younger child, and older child stages, while the path ΔJCR on ΔWFB was only significant for women in the older child family stage.

Moderating Effects of Role Prioritization. Role prioritization was predicted to moderate the effect of job crafting on WFB after one year, such that the effect would be stronger for those that prioritized work more highly than family. Results indicated that role prioritization predicted WFB after one year, however, the moderation effect was only significant for JCR, providing only minor support for *Hypothesis 4*. For JCR, results were in the expected direction, such that role prioritization had no effect on WFB when JCR was high, but when JCR was low or average,

WFB was lower for the participants that reported prioritizing work over family and the participants prioritizing roles equally.

As job crafting theory states that individuals engage in job crafting to satisfy basic needs, it would follow that employees that have more unmet social need satisfaction may turn to JCR as a way to increase their overall social need satisfaction through the work domain. Further, while most individuals engage in social interactions in multiple life domains, employees that predominately prioritize their family role may be likely to feel a greater abundance of social need satisfaction than those that focus more on their work lives, as one's family is likely to provide a greater quality and quantity of social interactions than one's colleagues. If this were the case, we would expect that with the group that prioritized work more, individuals that engaged in more JCR would be more likely to craft higher levels of social need satisfaction at work, and this may buffer against the negative effects that would have otherwise been associated with a lack of social need satisfaction, that may have led to negative spillover and ultimately to reduced WFB. However, levels of JCR would not have the same buffering effect among individuals that prioritize family over work, as they would be less likely to be facing a deficit in social need satisfaction.

Similarly, *Hypothesis 6* predicted that role prioritization moderated the relationship between ΔJC and ΔWFB, such that the effect would be stronger among those with high role prioritization (more prioritization of work). There was no support for this relationship overall or by JC facet. However, exploratory analyses showed that the addition of ΔRP in models of ΔJC on ΔWFB improved fit in all models, except those including ΔJCT. But, a significant moderation effect of ΔRP that accounted for an additional 4.2% of the variance in ΔWFB was only detected in the model that included ΔJCC. Specifically, the model showed that high positive ΔJCC was

associated with increases in WFB when ΔRP was negative (more prioritization of family), but when ΔRP was positive (more prioritization of work) the effect of high positive ΔJCC was no longer related to ΔWFB.

Job crafting theory can help explain why baseline role prioritization did not act as a moderator, but ΔRP did moderate the relationship between ΔJCC and ΔWFB; if an individual shifts their role prioritization to focus less on work and more on family, their relationship with their job is also likely to shift, and they may become less invested in and satisfied with their work, which could have negative implications for overall WFB. However, when individuals feel a lack of work meaningfulness, job crafting theory suggests that they engage in JCC to reconceptualize their work in a way that has more personal meaning. Thus, results could suggest that when individuals decrease prioritization of work, increasing JCC can help employees maintain or increase job satisfaction and overall WFB.

Theoretical and Practical Implications

This study provides theoretical and practical contributions to the WFI and proactive work literatures. First, this study expanded the WFI literature by using the FLCD framework to demonstrate experiences of WFB varied across family stages groups. While the specific pattern of predicted differences in WFB across family stage groups were not found here, results were aligned with a similar study that examined WLB across family stages (Wepfer et al., 2015) and provide additional evidence of the benefits of studying WFB phenomena more holistically.

Second, this study contributed to the job crafting literature by testing proposed claims that job crafting may be related to the WFI (e.g., Rastogi & Chaudhary, 2018; Akkermans & Tims, 2017) and providing a theoretical rational for the relationship between job crafting and WFB. Thus, this study answers calls explore the nature of individual WFB management

strategies (e.g., Bianchi & Milkie, 2010), and results demonstrated baseline associations, time-lagged associations, and change associations that provide initial evidence to suggest job crafting may be one strategy individuals use to alter their own levels of WFB. These findings make theoretical and practical contributions by suggesting job crafting may be a relatively risk-free and low-effort way to alter one's own level of WFB. In addition, while neither positive affect nor personal or work resources were measured here, results supported the theoretical argument, rooted in BBT (Frederickson, 2001), that acts of job crafting may be associated with more positive experiences at work across time, which can have distal effects on global WFB.

Third, this study provided additional contributions to the WFB and job crafting literatures by examining role prioritization as a potential moderator. While results largely did not support that role prioritization moderated the effect between job crafting and WFB, a moderating effect was found for certain facets of job crafting. Namely, for individuals that did not prioritize family over work, JCR positively predicted WFB after one year, and when individuals shifted prioritization away from work, WFB increased if JCC was also increased. These findings provide additional evidence to support the theoretical links between job crafting and need satisfaction as a motivation to craft.

Fourth, the effects of ΔJC on ΔWFB were examined across various demographic groups. Results did not support that the strength of the effect of ΔJC on ΔWFB differed by family stage. However, additional analyses that that found differences by gender, and differences by family stage and gender, contribute to the WFI literature by highlighting that family and contextual variables may play an important role in work-family experiences, and suggests that the effectiveness of individual WFB management strategies may vary across demographic groups,

although additional research is required before targeted recommendations can be made with confidence.

Strengths, Limitations, and Future Directions

One methodological weakness of the study was that all responses were self-reported. However, the topics covered in this study should not be expected to invoke desirable responding patterns, and multiple measures, that were taken over a considerable amount of time, indicated high T1 to T2 correlations (observed score correlations ranging from r = .51 to .72, and latent score correlations ranging from r = .61 to .86), which suggested a low likelihood that the data was threatened by response biases and measurement errors.

A strength of the study was examining WFI issues through the FLCD lens by looking at differences in WFB across family stages. While this provided insights into some of the differing experiences of individuals in different family stages, analyses of group differences were cross-sectional, and model fits and measurement invariance tests indicated that Ns per group were too small to conduct planned analyses across the six family stage groups that were initially proposed. In addition, there was a misalignment between the operational definition of the empty nest stage used here (individuals 55 years or older that did not live with dependent children) and the common conceptual definition (individuals with children that are now over 18 years old and are no longer dependents) because information on children over the age of 18 was not collected in the dataset. Therefore, it is possible that a portion of participants classified in the empty nest stage never had children, and if the experiences of those that did and did not have children varied significantly it would introduce less certainty in results surrounding the empty nest stage.

Additional research that captures detailed family information from a sample that reflects the diversity of modern families (e.g., single parents, homosexual couples) should be conducted

to help us better understand how individual experiences of WFB differ. Further, as Rodgers (1973) suggested the specific parameters used to define each family stage should be tailored to the variable of interest, future researchers can consider attempting to identify the family stage parameters most relevant to WFB. If a dataset that contained rich contextual information on a sample that was representative across various demographic categories, such as age, marital status, age of children, occupation, were collected, researchers could conduct a latent profile analysis to determine if age of one's youngest child was the ideal way to demarcate family stages for WFB, and if so, the usefulness of specific age range categories could be examined. Alternatively, a third variable may be identified which suggests that the age of one's youngest child plays a less important role on family stage groups relative to WFB.

Future researchers should also consider conducting a larger study that follows individuals of all family stages and takes multiple measurements over a series of years. The approach would be costly and time-consuming, but it would allow researchers to better understand the complex and dynamic nature of WFB across family stages. Such a study could also examine lifecycle variation of home and work demands in relation to WFB differences within participants longitudinally and between family stage groups. One potentially fruitful area would be to examine the changing levels of childcare and eldercare a family faces, and the relative amount that participants are responsible for that care within their family as moderators on the effect of family stage on WFB. Researchers could also capture more detail-rich aspects of family life, such as satisfaction with, effectiveness in, and prioritization of a broader number of personal roles (e.g., hobbyist, parent, manager, mentor). In addition, the multi-measure multi-year research approach would allow researchers to better understand the effects of critical events on WFB, such as having a child and transitioning from the establishment stage to the very young

stage, having a child move out and entering the empty nest stage, as well as the effects of separation or divorce on WFB and how those effects may vary by family stage.

Using the 2-WLCS method to examine change-to-change effects was an additional methodological strength. In comparison to the more commonly used difference method and residualized change method approaches, the 2-WLCS used here is ideal for minimizing measurement error while testing change-to-change effects across two measurement timepoints. Although, the 2-WLCS method is not without drawbacks, for instance, as role prioritization was captured with a single item measure and the 2-WLCS method requires a minimum of three observations to model a latent variable, ΔRP was modeled using the residualized change method.

Further, because it was measured with a single item, it was not possible to calculate a Cronbach's alpha reliability for role prioritization, however, role prioritization demonstrated considerable test-retest reliability, which provides additional confidence in results. In addition, when role prioritization and ΔRP were examined as moderators in in longitudinal latent analyses, traditional fit indices could not be used to compare model fit as latent interaction variables were estimated with the quasi-maximum likelihood method, for which no traditional fit indices have been developed. Future researchers should consider further exploring the relationships between WFB and role prioritization using a more comprehensive measure or role prioritization.

Another limitation of this study was poor SEM model fit, particularly with models that examined overall job crafting scores. As a response, analyses were conducted at both the scale and facet levels of job crafting to increase confidence in the results. A comparison of results demonstrated the importance of examining the facets of job crafting individually, as the overall scale and three facets of job crafting did not display uniform associations with other variables. While patterns of results of analyses of the overall scale, JCC, and JCR were mostly consistent,

moderation effects and group differences were found between them, and results of analyses of JCT differed frequently. While examining job crafting at the facet level is common practice for research conducted under the JD-R job crafting framework, most research conducted under the original job crafting framework models job crafting as the average of all job crafting items and ignores facet-level relationships. Future researchers should consider further examining the nomological net of job crafting at the facet level to identify under what circumstances it would be most appropriate to test for facet-specific effects. Results of such studies would contribute to job crafting theory and if consistent differences between JCT and JCR, and JCC were found, this could suggest that relational and cognitive forms of crafting were truly distinct from task crafting and should no longer be considered a single construct. In addition, while a recent meta-analysis suggested that there were minimal gender differences on job crafting, results here suggested that facet-level effects differed across gender and family stage groups. This suggests that researchers should continue to explore the relationship between gender and job crafting.

Conclusion

Taken together, the results of this study provide nascent evidence to suggest a nuanced relationship between job crafting and WFB that merits further research, and that integrating the lifespan framework more broadly into future studies of WFB by considering the effects of an expanded set of family and contextual variables can help the field gain a more holistic understanding of individual experiences of dynamic WFI process.

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FIGURES

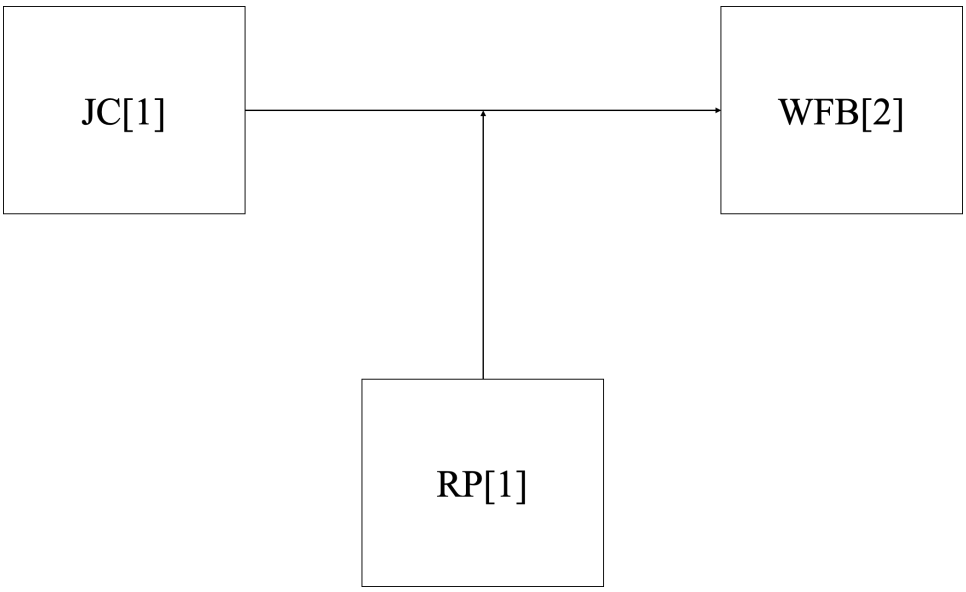


Figure 1. Proposed Model of the Time-Lagged Relationship between Job Crafting and Work-Family Balance Moderated by Role Prioritization.

Note. JC = job crafting. WFB = work-family balance. RP = role prioritization.

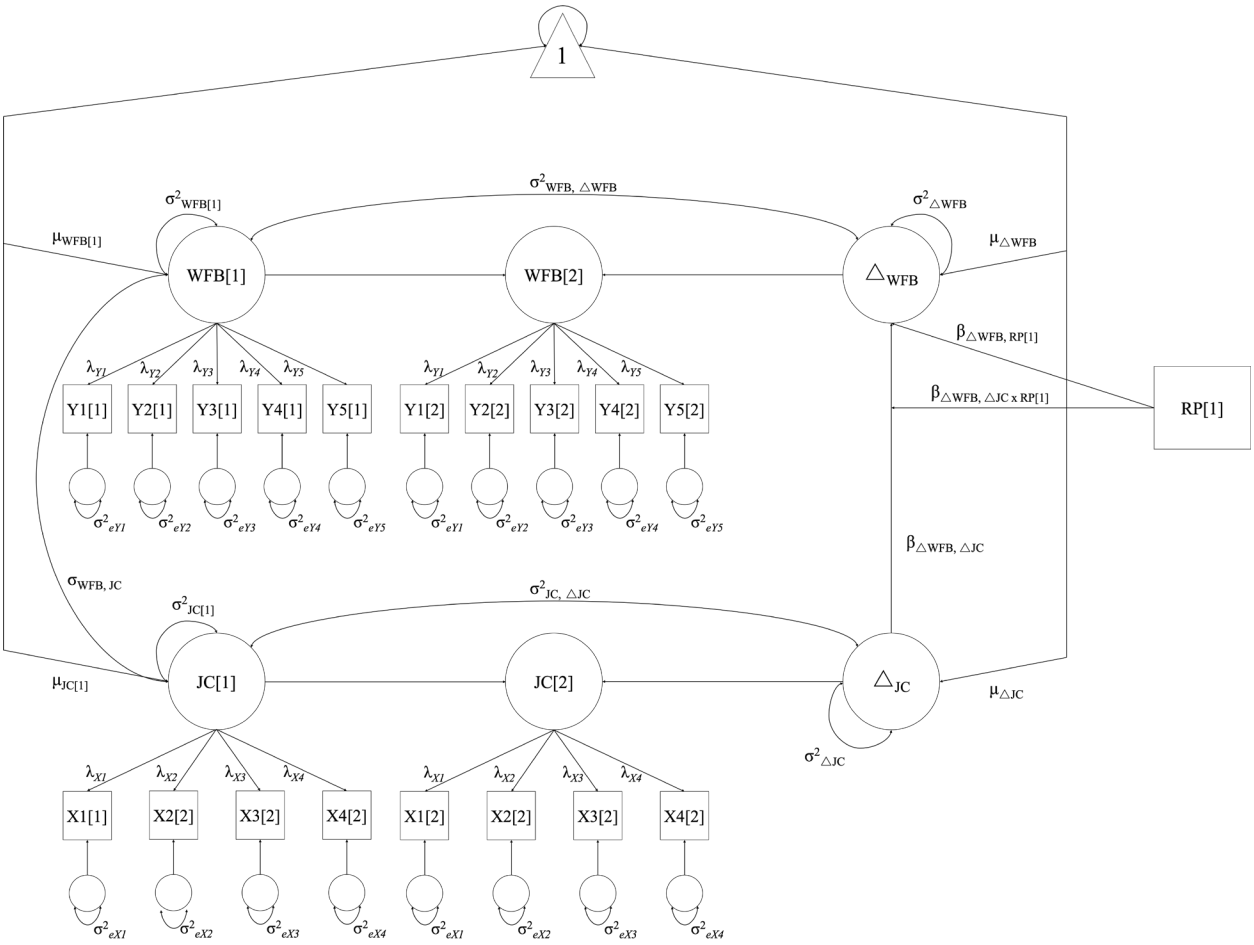


Figure 2. Proposed Model of the Relationship between Changes in Job Crafting and Changes in Work-Family Balance Moderated by Role Prioritization.

Note. Path diagram of the two-wave latent change score model adapted from Henk & Castro-Schillo (2016). WFB = work-family balance, JC = job crafting, RP = role prioritization. Deltas represent latent change scores, and unlabeled paths are constrained to 1. Means of JC and WFB factors at time 1 are fixed to zero for identification. In model, unique factor covariances among latent variables are freely estimated across time, and manifest variable intercepts (excluding RP) are estimated with equality constraints across time. For simplicity of the figure, four indicators were depicted for JC, which represents models that included a single facet of job crafting, however, in models that included the entire job crafting scale, all 12 indicators were modeled.

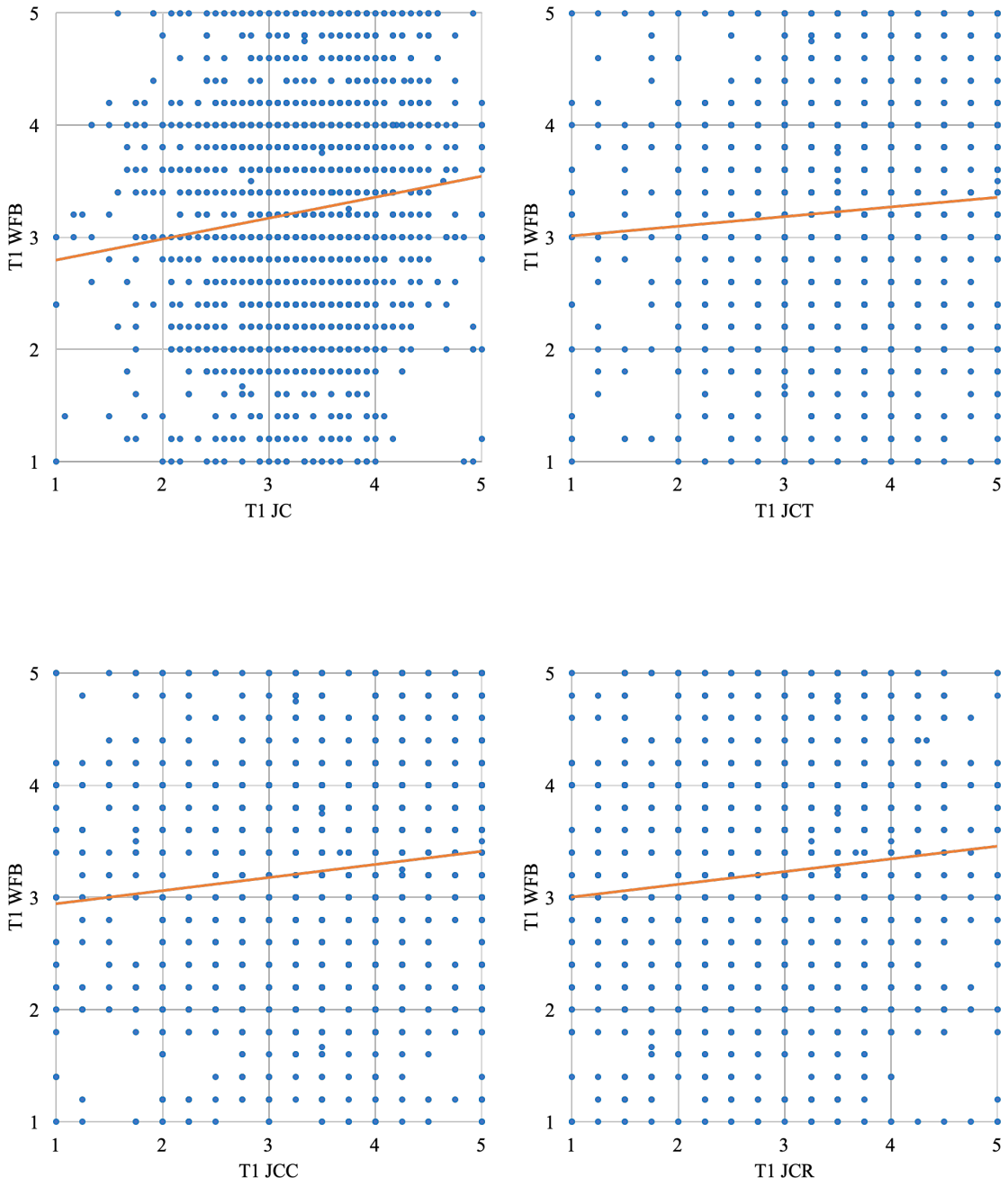


Figure 3. Scatterplots of Job Crafting by Work-Family Balance at Time 1 and Time 2.

Note. T1 = Time 1. T2 = Time 2. WFB = work-family balance. JC = job crafting. JCT = task crafting. JCC = cognitive crafting. JCR = relational crafting. N at T1 = 1980. N at T2 = 335.

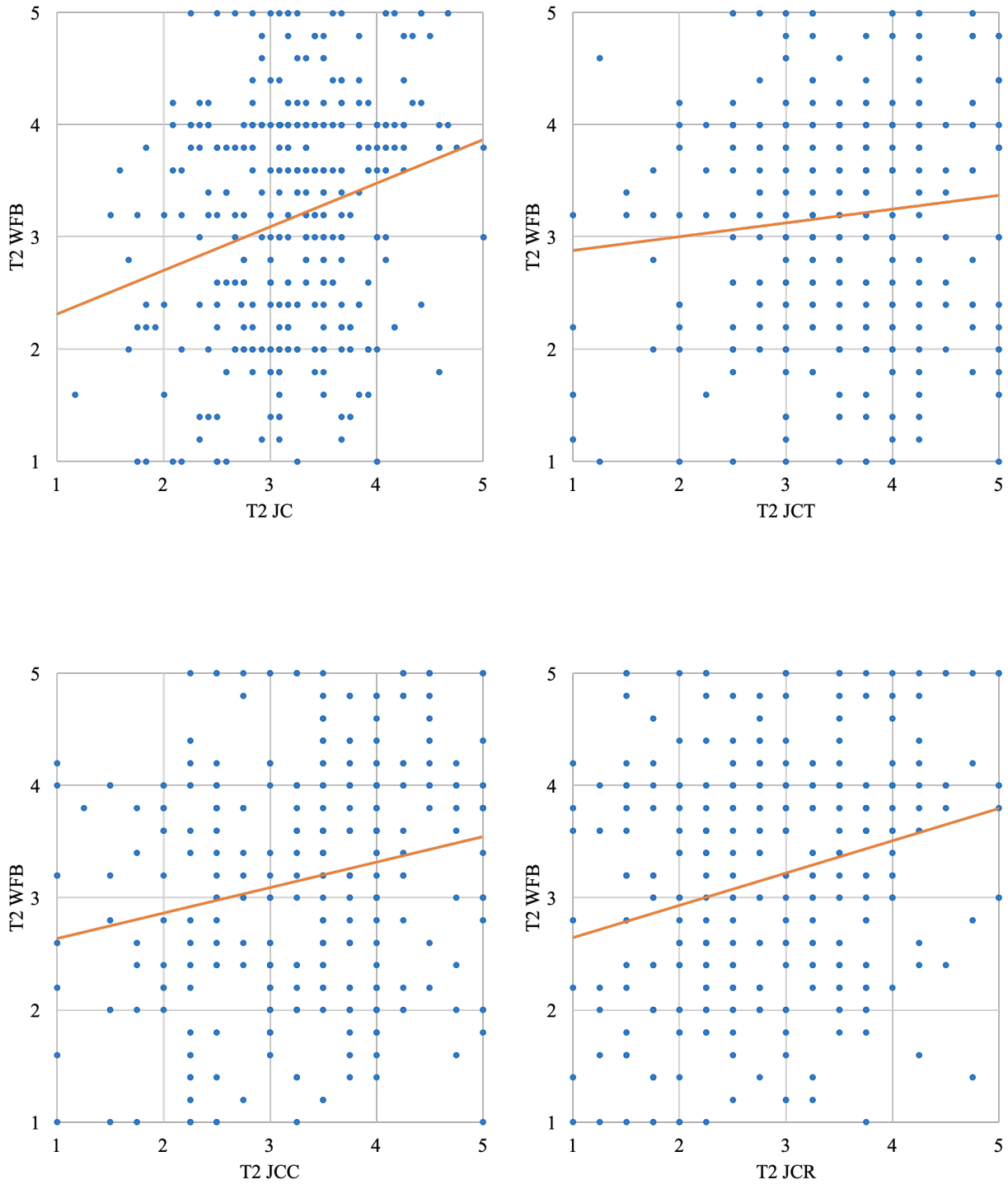


Figure 3. Scatterplots of Job Crafting by Work-Family Balance at Time 1 and Time 2 (continued).

Note. T1 = Time 1. T2 = Time 2. WFB = work-family balance. JC = job crafting. JCT = task crafting. JCC = cognitive crafting. JCR = relational crafting. N at T1 = 1980. N at T2 = 335

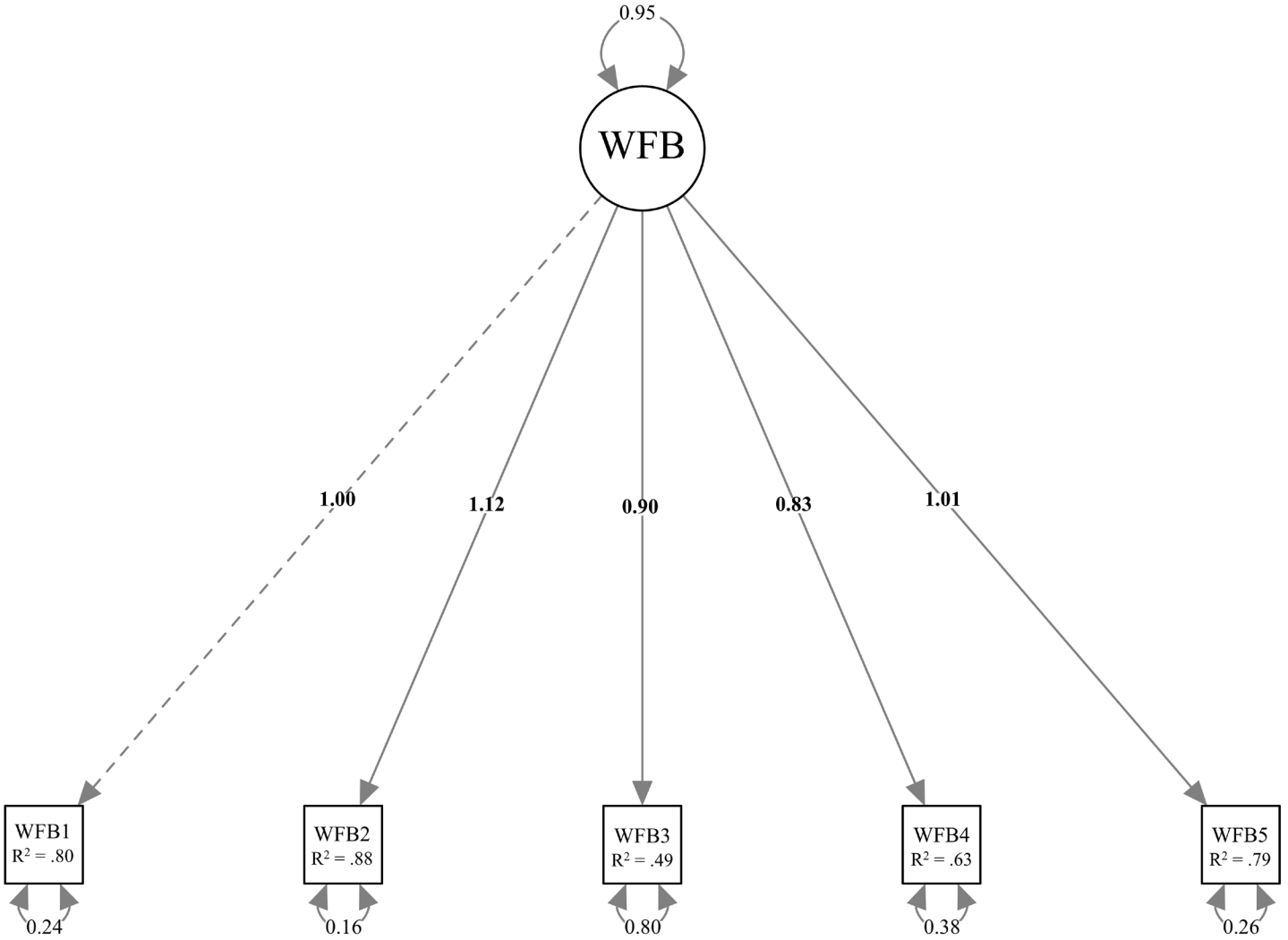


Figure 4. Single-Factor Confirmatory Factor Analysis of Work-Family Balance with Unstandardized Model at Time 1.

Note. WFB = work-family balance.

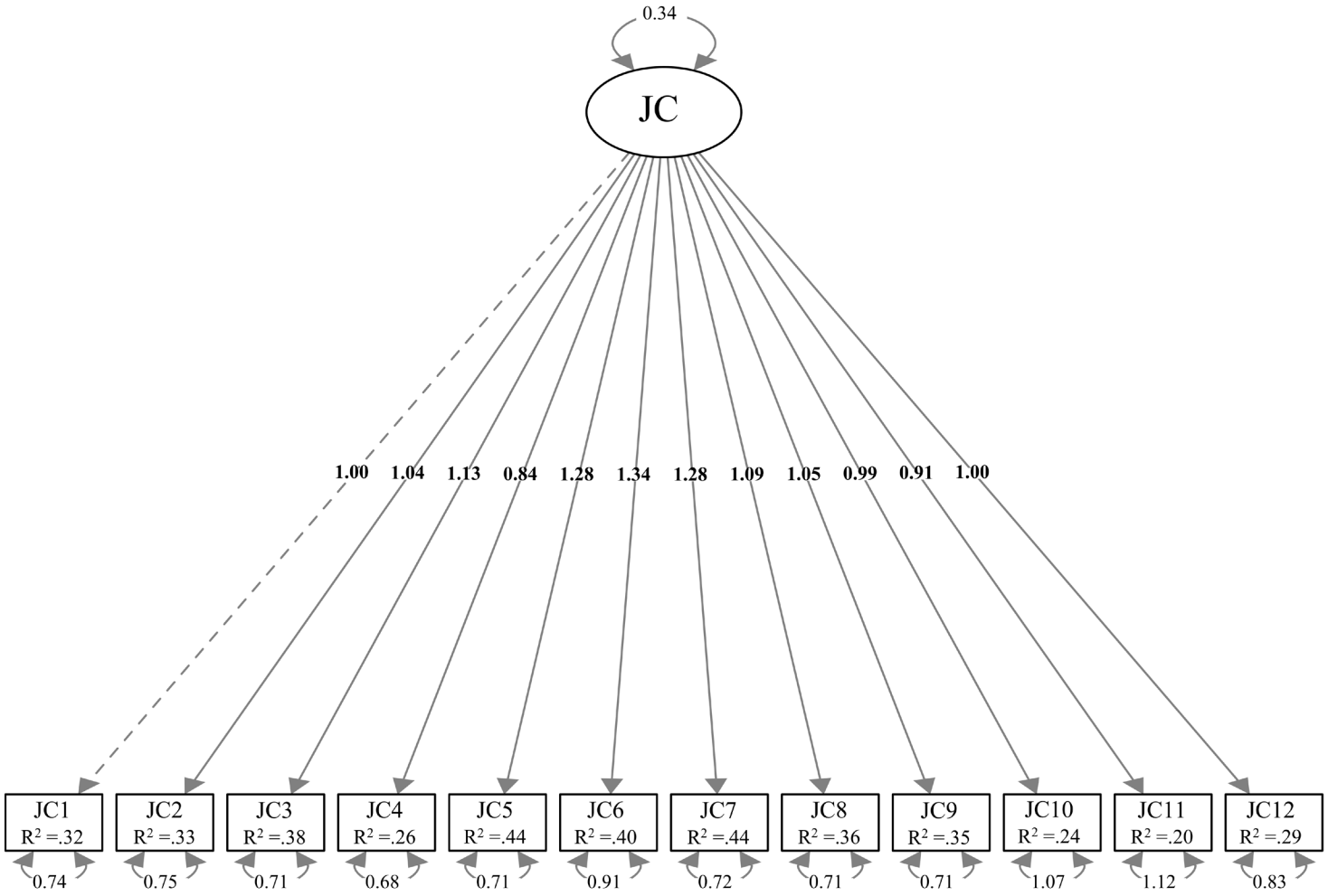


Figure 5. Single-Factor Confirmatory Factor Analysis of Job Crafting with Unstandardized Model at Time 1.

Note. JC = job crafting.

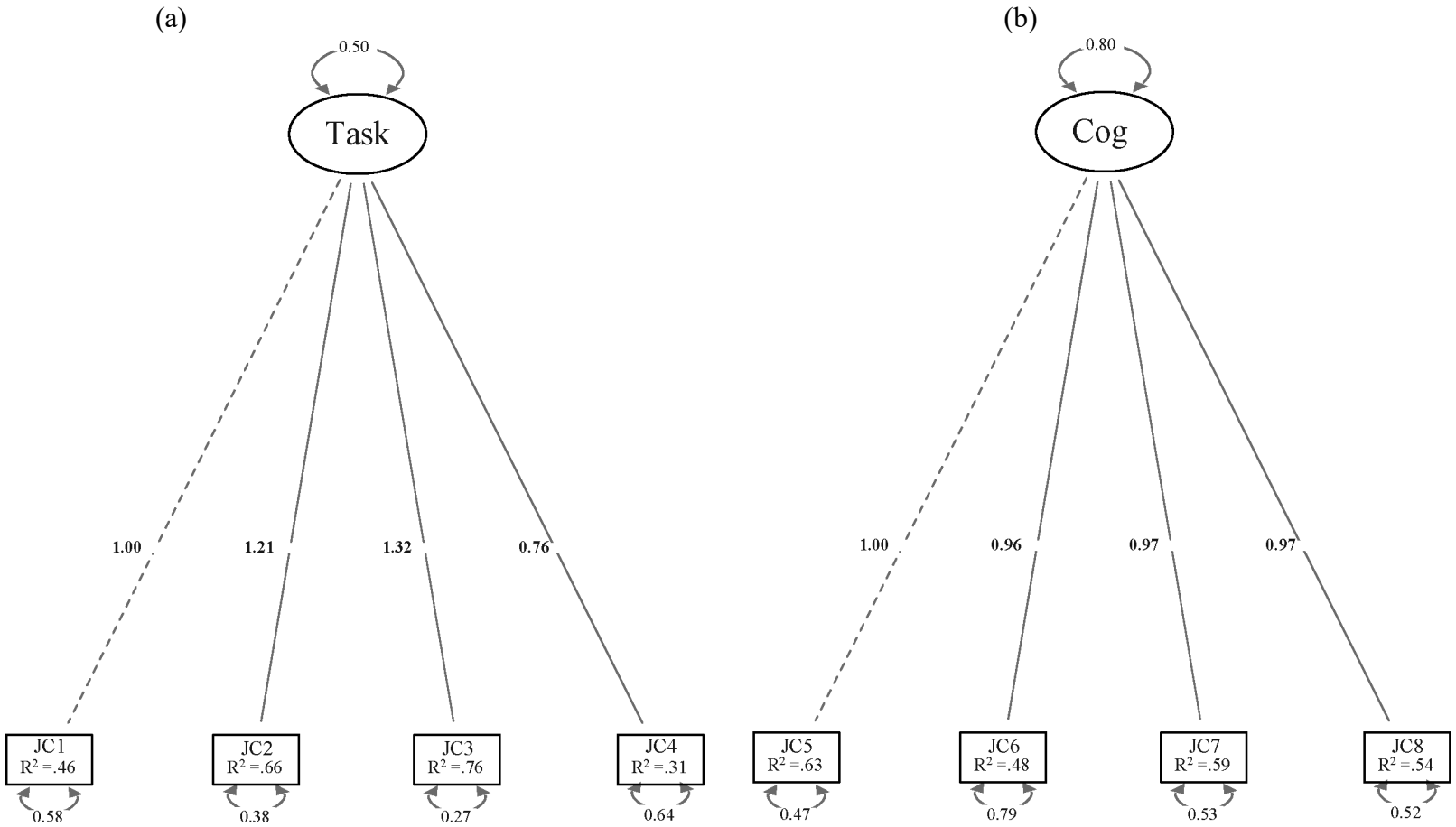


Figure 6. Individual Single-Factor Confirmatory Factor Analyses of the Three Facets of Job Crafting with Unstandardized Models at Time 1.

Note: (a) CFA of task crafting. (b) CFA of cognitive crafting. (c) CFA of relational crafting.

(c)

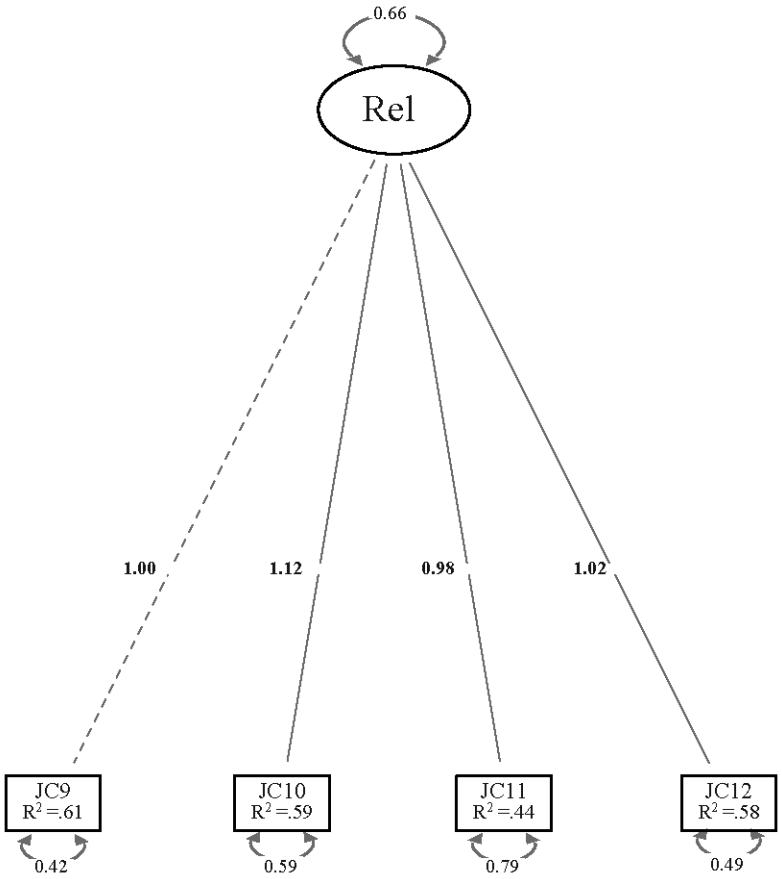


Figure 6. Individual Single-Factor Confirmatory Factor Analyses of the Three Facets of Job Crafting with Unstandardized Models at Time 1 (continued).

Note: (a) CFA of task crafting. (b) CFA of cognitive crafting. (c) CFA of relational crafting.

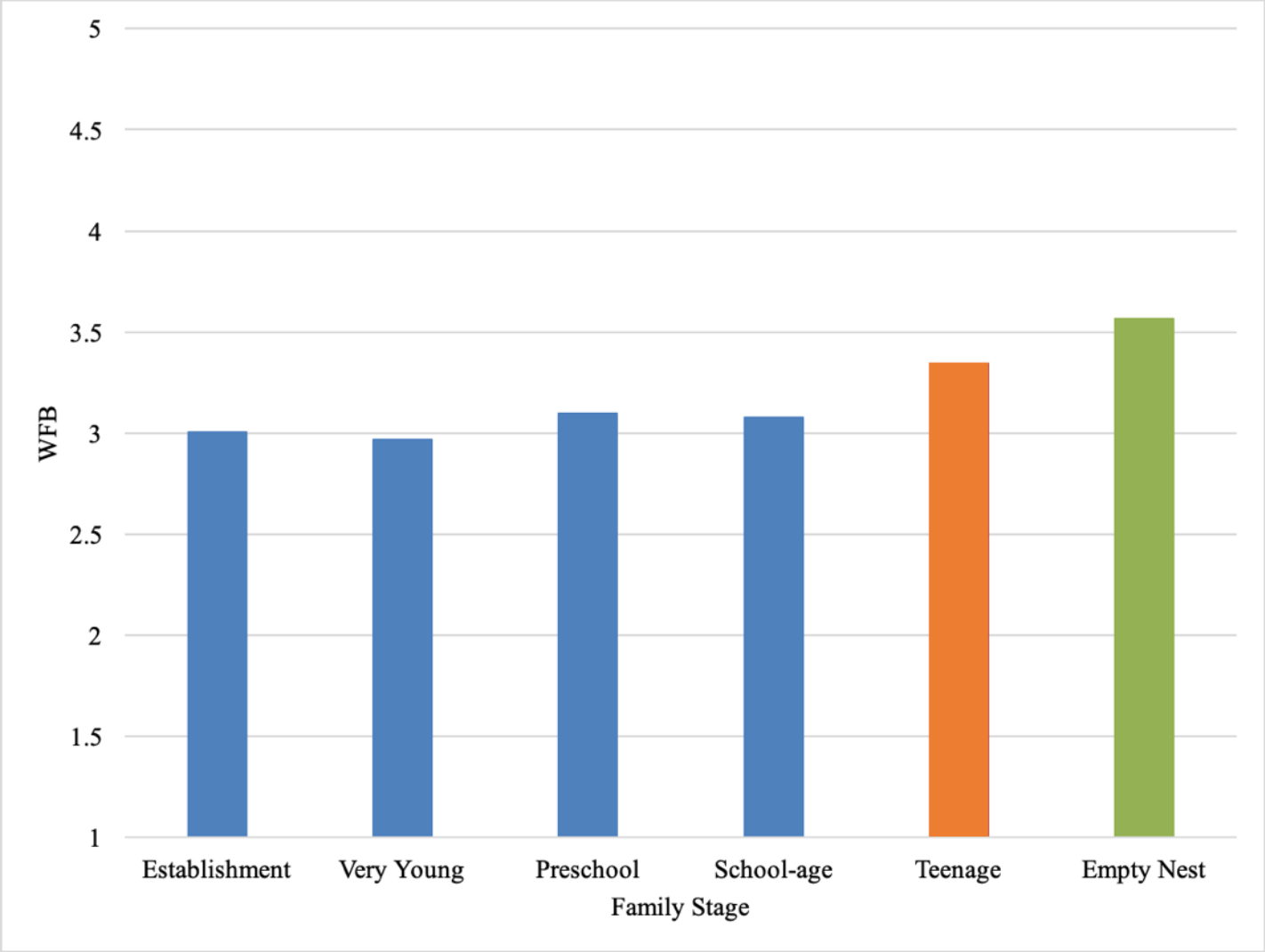


Figure 7. Mean Work-Family Balance by Family Stage at Time 1.

Note. WFB = work-family balance. Group means filled with the same color do not differ significantly from one another ($p > .05$).

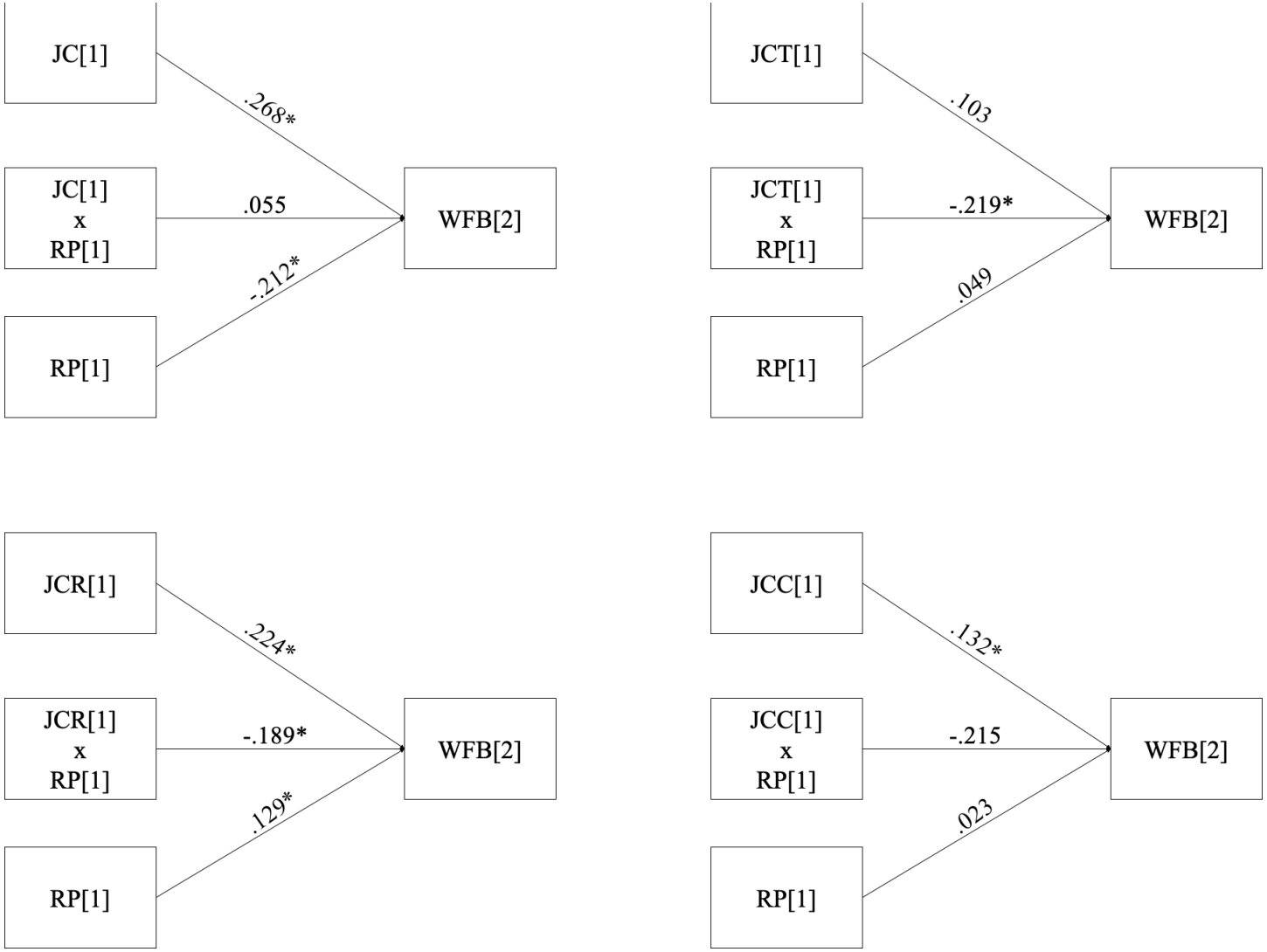


Figure 8. Models of the Unstandardized Effect of Job Crafting T1 on T2 Work-Family Balance Moderated by Role Prioritization Time 1.

Note. *p <.05. WFB = work-family balance. JC = job crafting. JCT = task crafting. JCR = relational crafting. JCC = cognitive crafting.

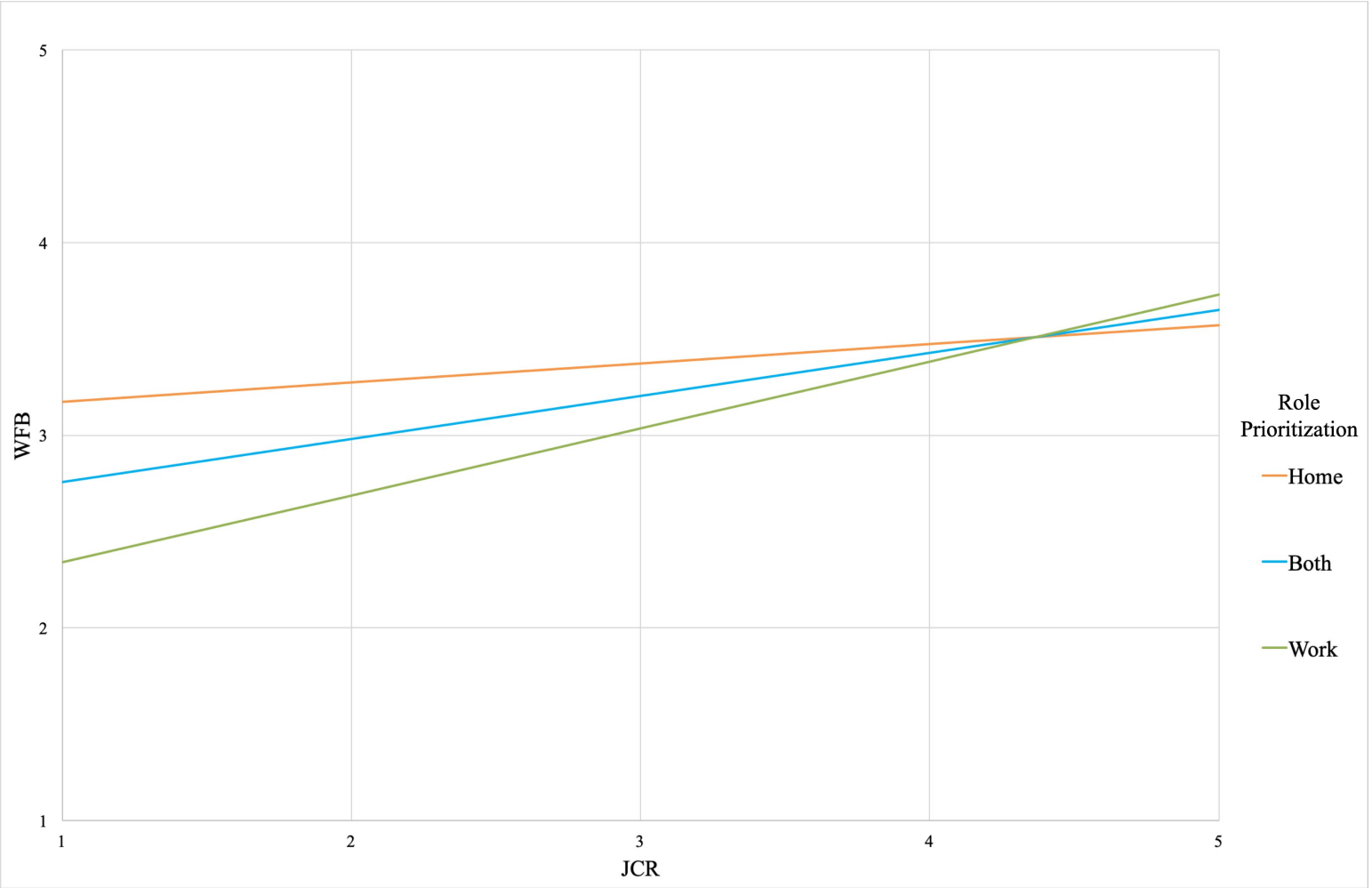


Figure 9. Interaction Between Time 1 Relational Crafting and Role Prioritization on Time 2 Work-Family Balance.

Note. WFB = work-family balance Time 2. JCR = relational crafting Time 1. Role prioritization group cutoffs: -1SD < 2.11 < Within 1 SD < 4.02 < +1SD. Thus, Home represents participants that endorsed "I am primarily a family person" and "I am a family and career person but lean a bit more towards family"; Both represents participants that endorsed "I am a career and family person", and Work represents participants that endorsed "I am primarily a career person" and "I am a family and career person but lean a bit more towards career".

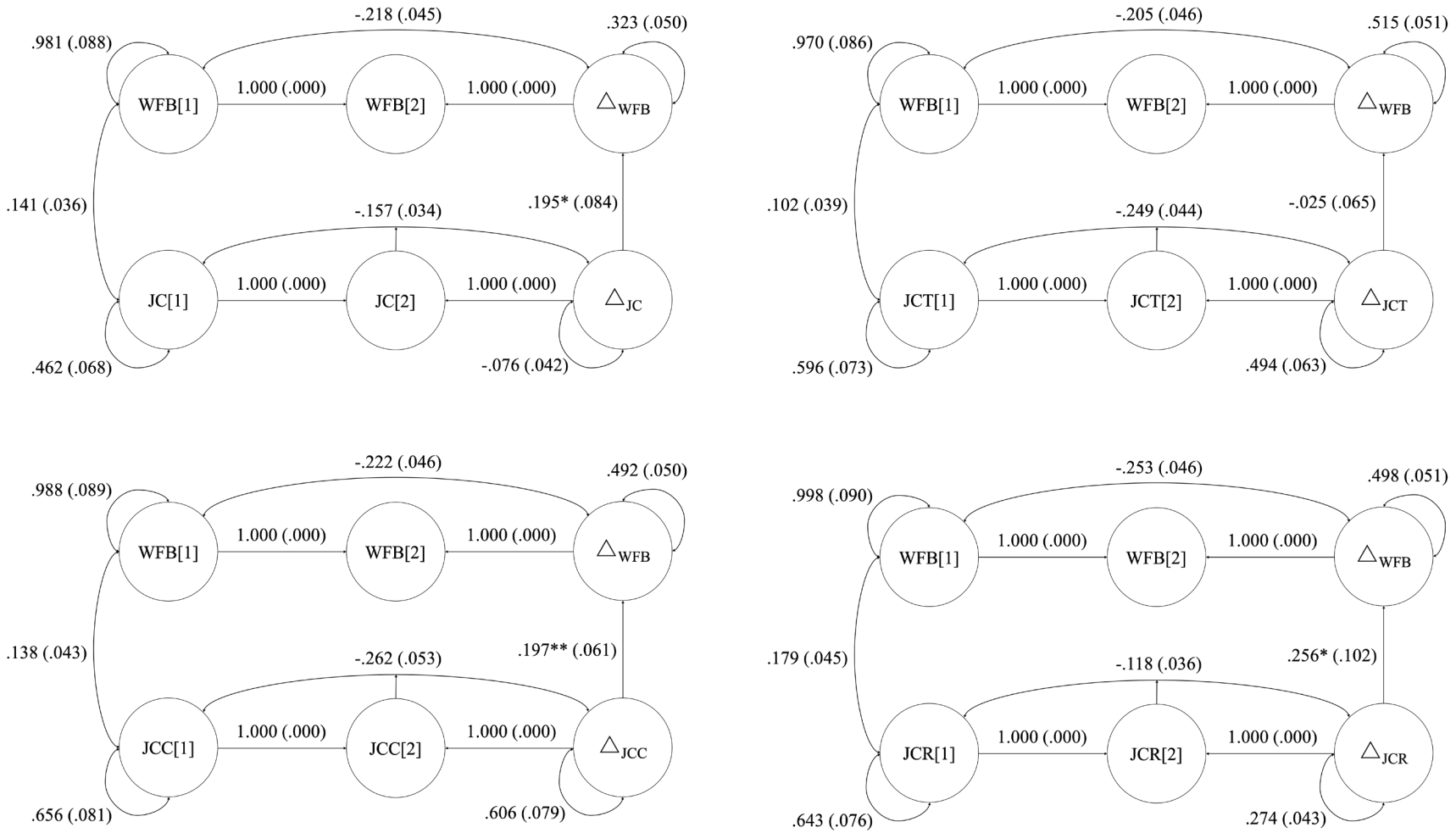
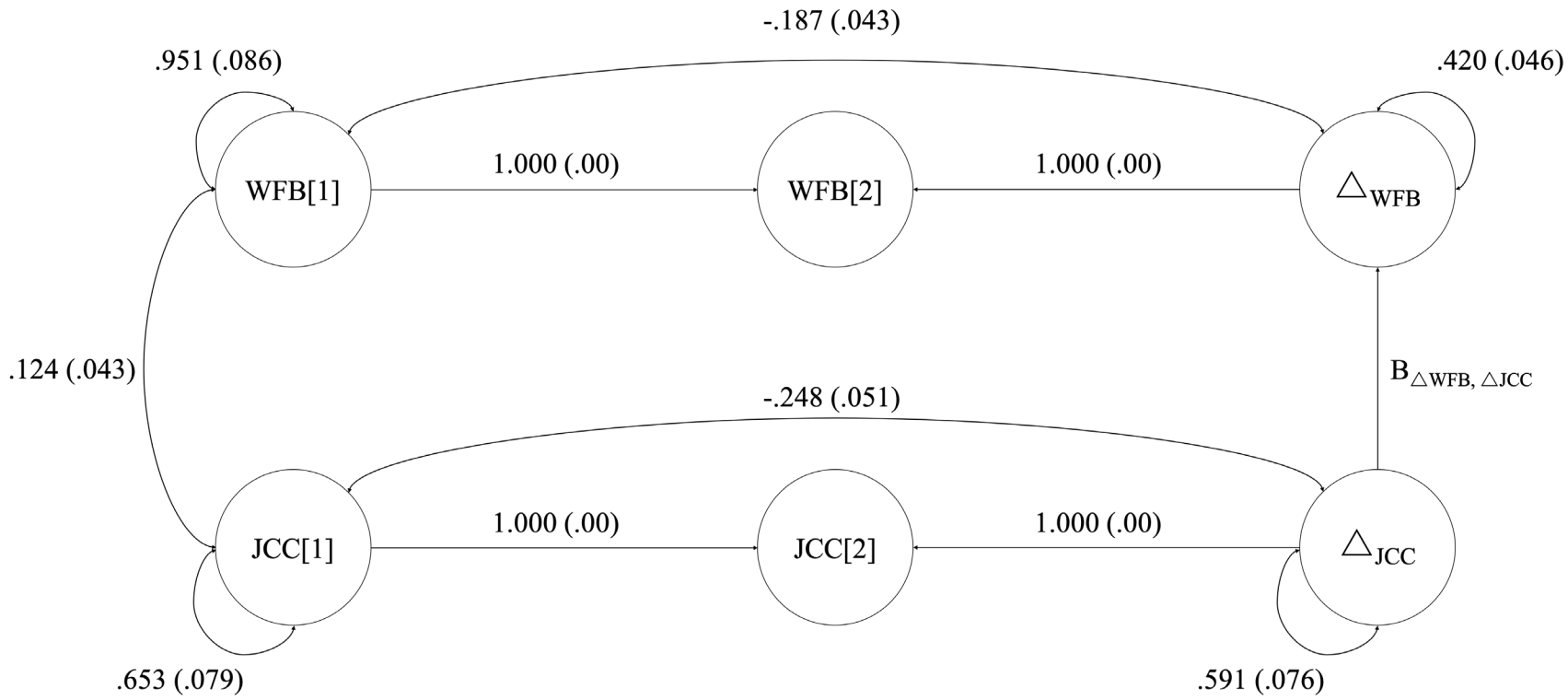


Figure 10. Models of the Unstandardized Effect of Changes in Job Crafting on Changes in Work-Family Balance.

Note. *p <.05. **p <.01. Standard errors displayed in parentheses. WFB = work-family balance. JC = job crafting. JCT = task crafting. JCR = relational crafting. JCC = cognitive crafting. Deltas represent latent change scores.



	$B_{\Delta WFB, \Delta JCC}$	
Family Stage	Men	Women
Establishment	.096 (.262)	.830** (.254)
Younger Child	.313 (.179)	.507** (.194)
Older Child	.055 (.117)	.552** (.184)
Empty Nest	.205 (.074)	-.270 (.162)

Figure 11. Model of Changes in Cognitive Crafting on Changes in Work-Family Balance by Condensed Family Stage and Gender Groups.

Note. *p <.05. **p <.01. WFB = work-family balance. JCC = cognitive crafting. Deltas represent latent change scores. Standard errors displayed in parentheses. B values represent unstandardized beta regression coefficients.

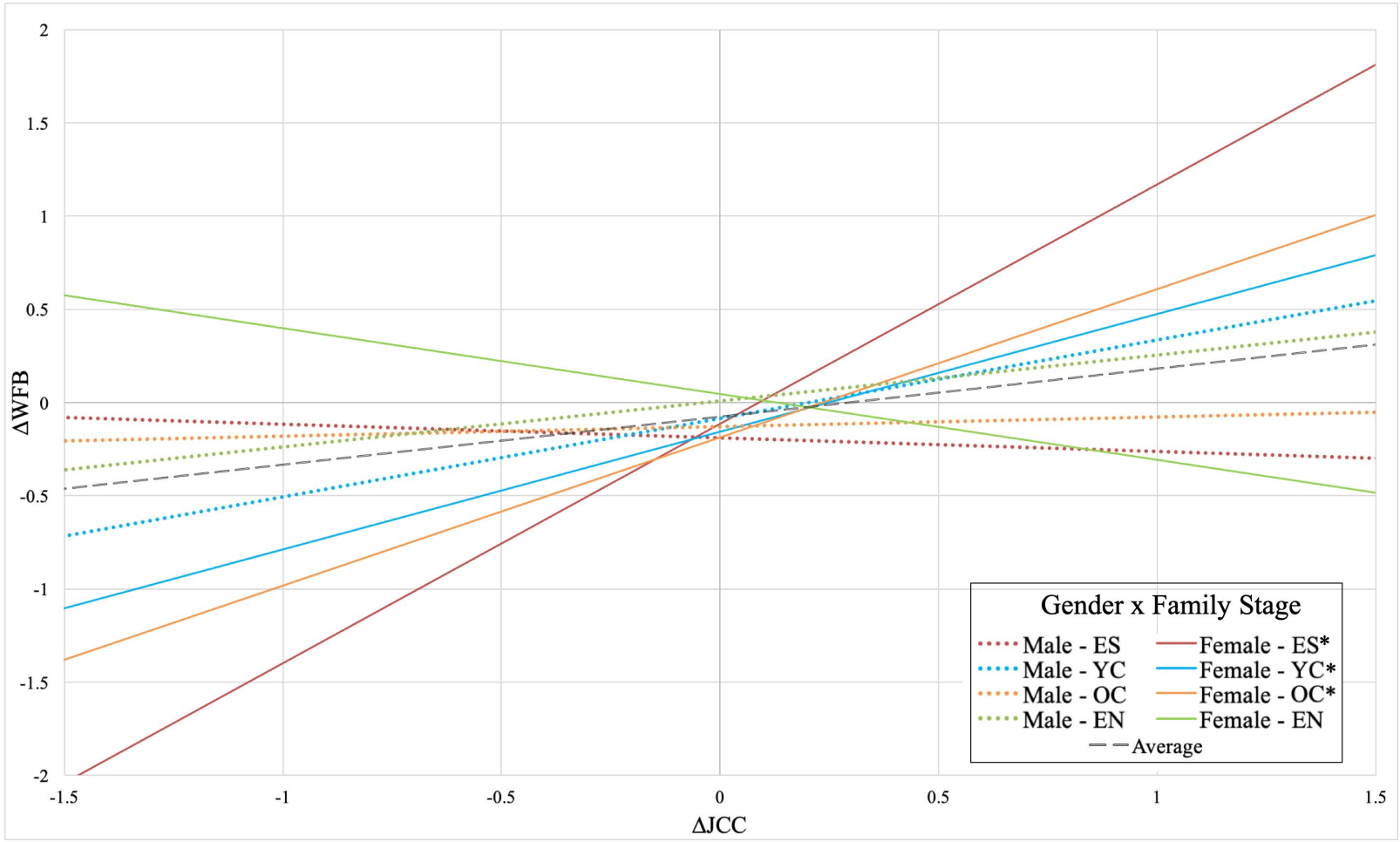
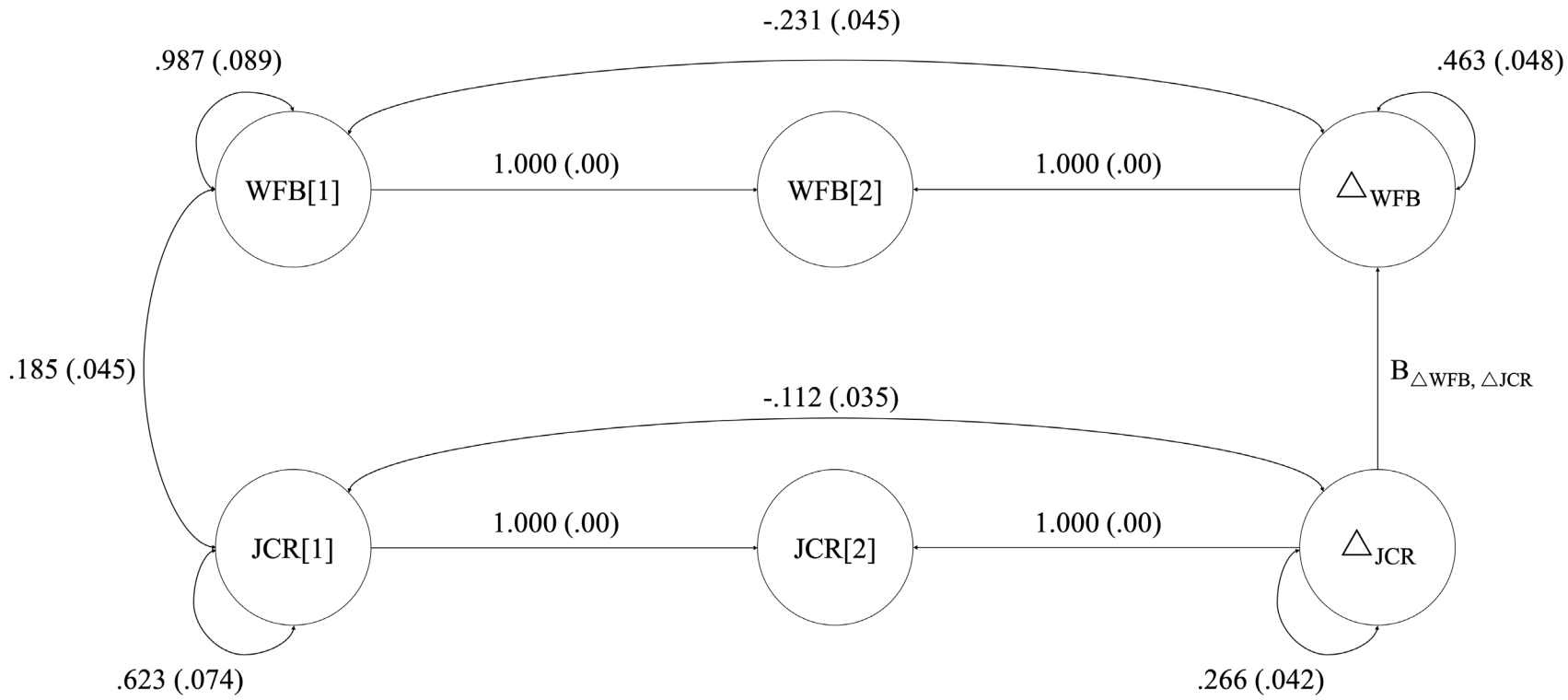


Figure 12. Significant Regression Results of Change in Cognitive Crafting on Change in Work-Family Balance by Family Stage and Gender Groups.

Note. *$p < .05$. ES = establishment. YC = younger child. OC = older child. EN = empty nest. WFB = work-family balance. JCC = cognitive crafting. Deltas represent latent change scores from Time 1 to Time 2. Average = the mean regression of ΔJCC on ΔWFB across all family stage and gender groups.



	BΔWFB, ΔJCR	
Family Stage	Men	Women
Establishment	.508 (.379)	-.168 (.399)
Younger Child	.374 (.298)	.432 (.337)
Older Child	.135 (.249)	1.106** (.277)
Empty Nest	-.031 (.169)	.284 (.352)

Figure 13. Model of the Unstandardized Effect of Changes in Relational Crafting on Changes in Work-Family Balance by Condensed Family Stage and Gender.

Note. *p <.05. **p <.01. WFB = work-family balance. JCR = relational crafting. Deltas represent latent change scores. Standard errors displayed in parentheses. B values represent unstandardized beta regression coefficients.

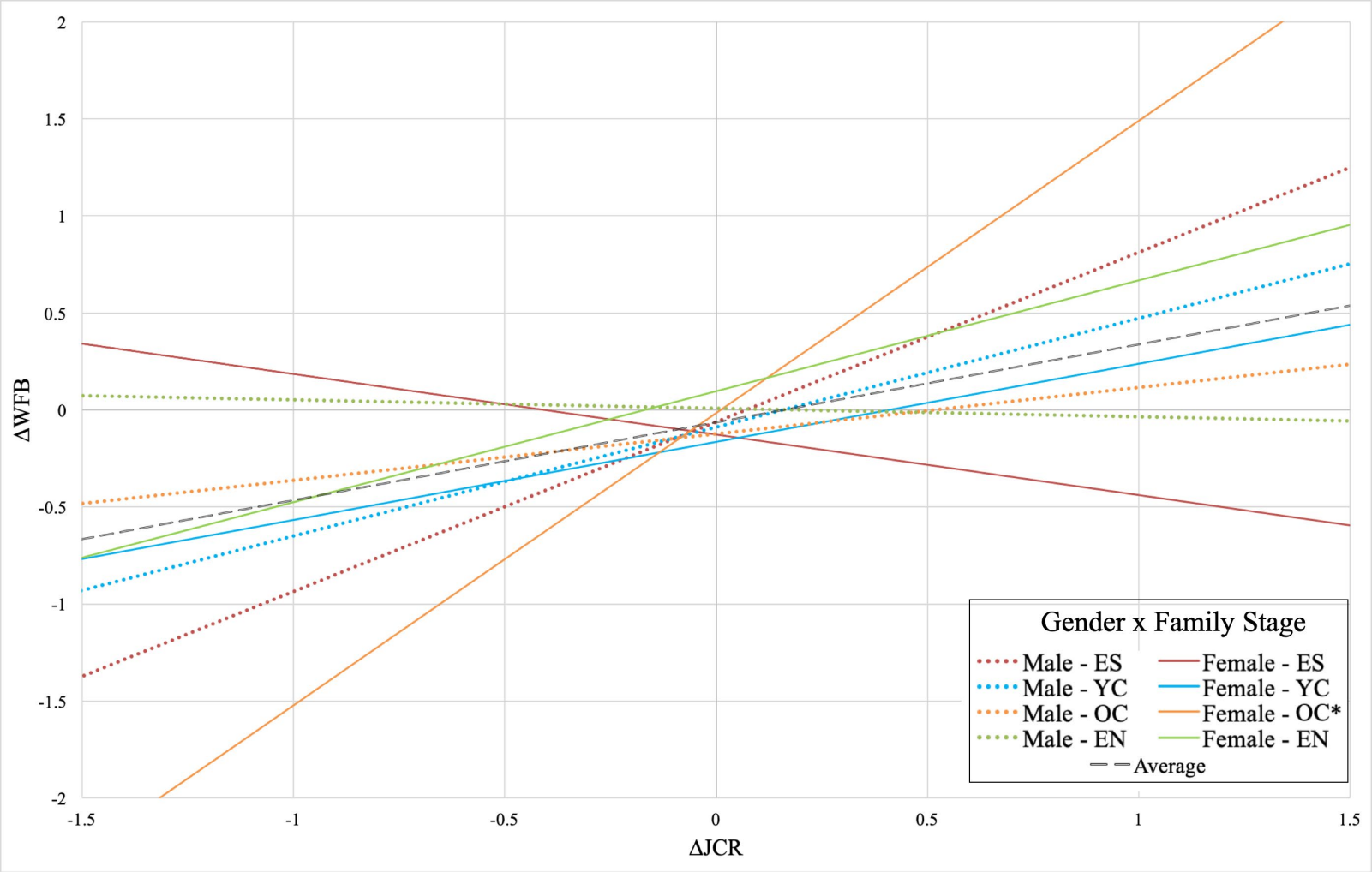


Figure 14. Significant Regression Results of Change in Relational Crafting on Change in Work-Family Balance by Family Stage and Gender Groups.

Note. *$p < .05$. ES = establishment. YC = younger child. OC = older child. EN = empty nest. WFB = work-family balance. JCC = cognitive crafting. Deltas represent latent change scores from Time 1 to Time 2. Average = the mean regression of ΔJCC on ΔWFB across all family stage and gender groups.

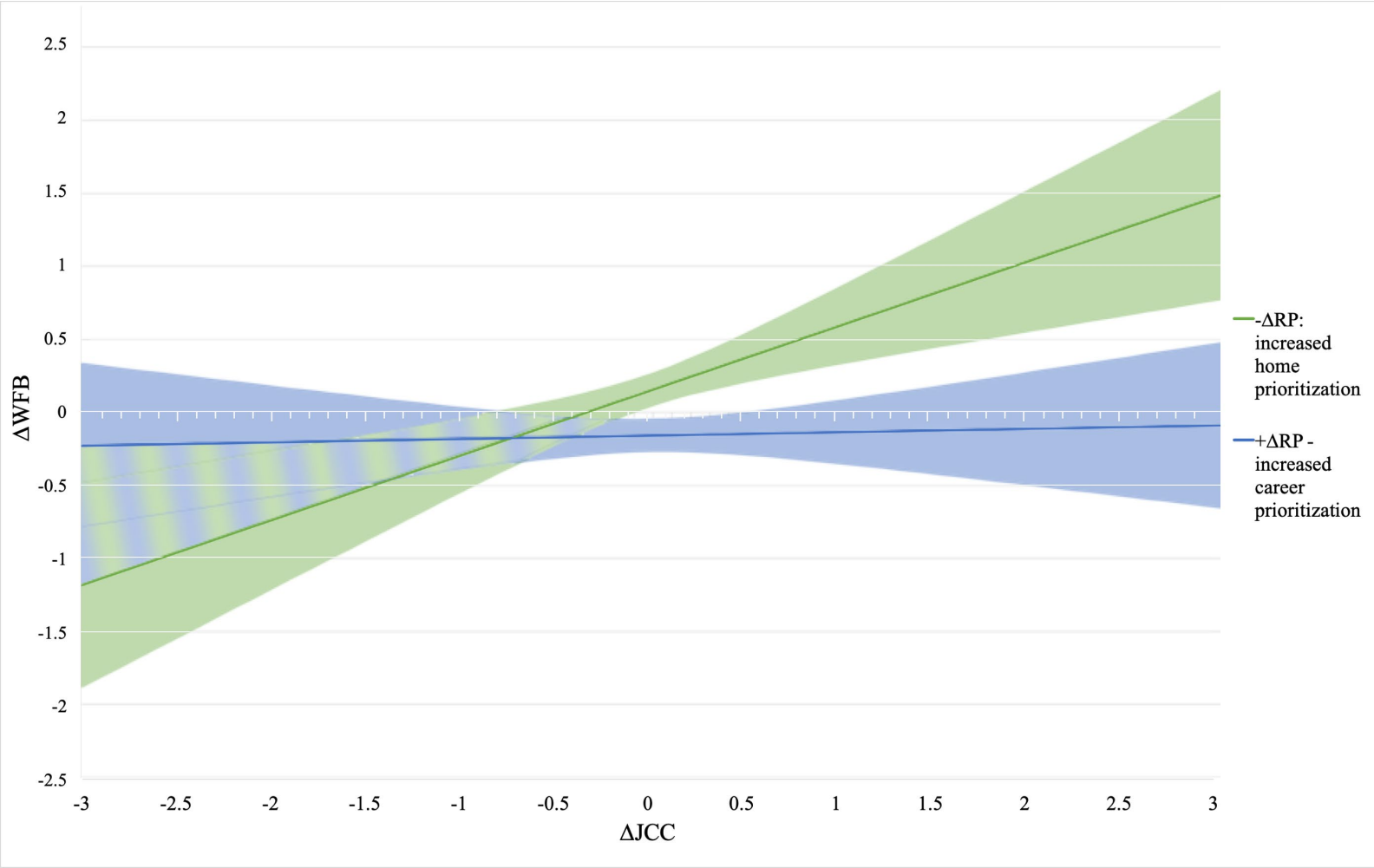


Figure 15. Interaction Between Change in Cognitive Crafting and Change in Role Prioritization on Change on Work-Family Balance.

Note. Color filled areas surrounding lines represent 95% confidence bands and vertical lines of mixed colors indicate confidence band overlap. WFB = work-family balance. JCC = cognitive crafting. RP = role prioritization. Deltas represent latent change scores. ΔRP groups were based on +/- 1 standard deviation of the mean of ΔRP. Negative ΔRP values indicated that participants reported more home prioritization at Time 2 than at Time 1. Positive ΔRP indicated that participants reported more career prioritization at Time 2 than at Time 1.

TABLES

Table 1. Participant Family Stage Distribution in Cross-sectional and Longitudinal Analysis Samples.

	Cross-sectional Analysis Sample		Longitudinal Analysis Sample	
Family Stage	N	%	N	%
Establishment	217	15.4	59	17.6
Very Young	176	12.5	41	12.2
Preschool	118	8.4	22	6.6
School-age	240	17.0	58	17.3
Teenage	141	10.0	35	10.4
Empty Nest	519	36.8	120	35.8
Total	1411		335	

Table 2. Comparison of Within-Age Group Percentage Distribution of the Age of Married Participants' Youngest Child Between General Untied States and Faculty Member Samples.

Participant Age Group (in Years)	N	N	Percentage of Sample by Age of Youngest Child Within Participant Age Groups									
			Age of Youngest Child (in Years)									
			No Children[a]		Under 2		2 to 5		6 to 11		12 to 18	
	U.S.	Faculty	U.S.	Faculty	U.S.	Faculty	U.S.	Faculty	U.S.	Faculty	U.S.	Faculty
< 30	99	79	27.3%	79.8%	20.2%	17.7%	19.2%	2.5%	26.3%	.0%	7.1%	.0%
30 to 34	333	1,695	13.5%	52.5%	31.5%	30.7%	33.6%	14.9%	17.4%	1.8%	3.9%	.1%
35 to 39	244	3,250	6.6%	36.5%	11.5%	24.4%	27.9%	28.3%	38.1%	9.8%	16.0%	1.1%
40 to 44	264	3,364	15.5%	29.9%	4.9%	10.5%	27.7%	22.7%	28.4%	30.6%	23.5%	6.3%
45 to 49	137	2,918	27.7%	31.7%	1.5%	3.0%	7.3%	9.0%	19.7%	32.6%	43.8%	23.8%
50 to 54	131	3,066	58.0%	49.3%	.8%	1.0%	2.3%	2.8%	3.8%	14.1%	35.1%	32.8%
55 to 59	63	3,026	84.1%	75.6%	.0%	.6%	.0%	1.2%	3.2%	4.7%	12.7%	18.0%
60 to 64	71	2,483	97.2%	90.4%	.0%	.4%	.0%	.8%	1.4%	2.5%	1.4%	6.0%
65 to 69	43	1,444	97.7%	95.3%	.0%	.1%	.0%	.6%	.0%	1.1%	2.3%	2.9%
70 to 75	42	750	100%	96.8%	.0%	.1%	.0%	.3%	.0%	.7%	.0%	2.1%
Total	1,417	22,075										

Note. [a]No children was defined as zero children living at home under the age of 19 years old. Only participants that reported being married were included in analyses. U.S. = a general United States sample sourced from the Midlife in the United States (Ryff et al., 2016) study. Faculty = a sample of doctoral degree recipients employed in academia that was sourced from the National Science Foundation Survey of Doctoral Recipients (National Science Foundation, 2017). The faculty sample only includes participants that reported working in academia at the rank of full professor, associate professor, assistant professor, lecturer, or instructor.

Table 3. Group Comparisons by Rate of Participation in Waves of Data Collection.

	Participated in Single Wave			Participated in Multiple Waves[a]			
Time 1 Variables	N	*M*	*SD*	N	*M*	*SD*	*t-value*
Job Crafting	888	3.33	.68	523	3.30	.68	1.09
Task Crafting	887	3.53	.83	523	3.53	.84	.05
Relational Crafting	887	3.46	.94	523	3.44	.91	.33
Cognitive Crafting	888	3.02	.91	522	2.92	.93	2.03*
Work-Family Balance	888	3.25	.98	523	3.28	.99	-.46
Role Prioritization	888	2.94	.97	523	3.02	.93	-1.52
Age	885	49.97	12.26	521	49.93	12.00	.07
Number of Children[b]	433	1.73	.77	242	1.67	.80	1.00
Mean Age of Children[b]	433	8.36	5.15	242	8.63	5.21	-.66
Tenure	876	13.58	10.21	523	14.64	10.07	-1.89
Time 1 Variables	N	*%*		N	*%*		χ^2-value
Gender	888	--		523	--		1.76
Men	537	60.47		298	56.98		
Women	350	39.41		224	42.83		
Other	1	.11		1	.19		
Dual-income	888	--		523	--		8.23**
Yes	629	70.83		407	77.82		
No	259	29.17		116	22.18		
Ethnicity	883	--		522	--		11.94*
White	710	80.41		431	82.57		
African American	33	3.74		22	4.21		
Asian	79	8.95		36	6.90		
Hispanic	41	4.64		11	2.11		
Other	20	2.27		122	23.37		
Family Stage	888	--		523	--		2.29
Establishment	134	15.09		83	15.87		
Very Young	113	12.73		63	12.05		
Preschool	81	9.12		37	7.07		
School-age	149	16.78		91	17.40		
Teenage	90	10.14		51	9.75		
Empty Nest	321	36.15		198	37.86		
Job Title	863	--		491	--		26.13**
Assistant Professor	162	18.77		111	22.61		
Associate Professor	151	17.50		120	24.44		
Full Professor	220	25.49		136	27.70		
Other	330	38.24		124	25.25		

Note. ** $p < .01$. * $p < .05$. M = mean. SD = standard deviation. [a]Participants were classified into the multiple wave participation group if they initiated the online survey by providing informed consent in more than one wave of data collection. [b]Participants classified in the empty nest stage were excluded from number and age of child mean comparisons because its members have no children.

Table 4. Group Comparisons Between Participants of Multiple Waves of Data Collection with Only Time 1 Responses and those with Time 1 and Time 2 Responses.

	Time 1 Response Only			Time 1 and Time 2 Responses			
Time 1 Variables	N	*M*	*SD*	N	*M*	*SD*	*t-value*
Job Crafting	165	3.36	.70	326	3.29	.66	1.11
Task Crafting	165	3.61	.84	326	3.51	.83	1.24
Cognitive Crafting	165	3.54	.94	326	3.45	.87	1.12
Relational Crafting	165	2.94	.93	325	2.92	.92	.211
Work-Family Balance	165	3.36	.98	326	3.25	1.00	1.14
Role Prioritization	165	2.90	.86	326	3.06	.96	-1.86
Age	165	51.01	12.16	324	49.32	12.15	1.46
Number of Children[a]	78	1.73	.75	151	1.64	.81	.86
Mean Age of Children[a]	78	8.51	5.00	151	8.69	5.34	-.25
Tenure	165	15.08	10.31	326	14.49	10.12	.61
Time 1 Variables	N	*%*		N	*%*		χ^2-value
Gender	165	--		326	--		.55
Men	95	57.58		184	56.44		
Women	70	42.42		141	43.25		
Other	0	.00		1	.31		
Dual-income	165	--		326	--		1.68
Yes	31	18.79		78	23.93		
No	134	81.21		248	76.07		
Ethnicity	165	--		325	--		6.88
White	136	82.42		273	84.00		
African American	3	1.82		17	5.23		
Asian	15	9.09		16	4.92		
Hispanic	5	3.03		6	1.85		
Other	6	3.64		13	4.00		
Family Stage	165	--		326	--		2.23
Establishment	23	13.94		58	17.79		
Very Young	20	12.12		41	12.58		
Preschool	13	7.88		21	6.44		
School-age	31	18.79		55	16.87		
Teenage	14	8.48		34	10.43		
Empty Nest	64	38.79		117	35.89		
Job Title	153	--		306	--		9.44*
Assistant Professor	28	18.30		80	26.14		
Associate Professor	31	20.26		81	26.47		
Full Professor	47	30.72		83	27.12		
Other	47	30.72		62	20.26		

Note. * $p < .05$. M = mean. SD = standard deviation. [a]Participants classified in the empty nest stage were excluded from number and age of child mean comparisons because its members have no children.

Table 5. Indicators of Normality for Study Variables.

	N	Range	Potential Outlier Thresholds		Skewness (SE)	Kurtosis (SE)
			Below	Above		
Time 1						
Job Crafting	1411	1.00 - 5.00	1.27	5.38	-.29 (.07)	.23 (.13)
Task Crafting	1411	1.00 - 5.00	1.03	6.03	-.49 (.07)	.26 (.13)
Cognitive Crafting	1411	1.00 - 5.00	.66	6.25	-.42 (.07)	-.29 (.13)
Relational Crafting	1411	1.00 - 5.00	.24	5.73	-.06 (.07)	-.51 (.13)
WFB	1411	1.00 - 5.00	.31	6.21	-.31 (.07)	-.68 (.13)
Role Prioritization	1411	1.00 - 5.00	.11	5.83	.20 (.07)	-.35 (.13)
Time 2						
Job Crafting	335	1.17 - 5.00	1.21	5.28	-.12 (.13)	.09 (.27)
Task Crafting	335	1.00 - 5.00	.98	5.99	-.35 (.13)	.24 (.27)
Cognitive Crafting	334	1.00 - 5.00	.59	6.20	-.46 (.13)	-.16 (.27)
Relational Crafting	334	1.00 - 5.00	.04	5.66	.15 (.13)	-.65 (.27)
WFB	335	1.00 - 5.00	.07	6.29	-.19 (.13)	-.82 (.27)
Role Prioritization	335	1.00 - 5.00	.16	5.89	.06 (.13)	-.46 (.27)

Note. WFB = work-family balance. SE = standard error. Potential outlier thresholds = 3 standard deviations below or above the mean.

Table 6. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Condensed Family Stage Groups.

Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Partial Invariance[ab] Scalar	Partial Invariance[ab] Strict
ΔWFB						
χ^2	266.163	285.888	311.423	365.946	302.658	358.085
df	168	180	195	210	192	207
AIC	7356.972	7352.698	7348.232	7372.756	7345.468	7370.894
BIC	7707.872	7657.828	7596.151	7563.462	7604.829	7573.043
CFI	.084	.084	.084	.094	.083	.093
RMSEA	.969	.967	.964	.952	.966	.953
Δχ2	--	19.725	25.535	54.523	16.770	55.427
Δdf	--	12	15	15	12	15
Pr(>χ^2)	--	.072	.043*	.000**	.158	.000*
Δ*CFI*	--	.000	.000	.010	-.001	.010
Δ*RMSEA*	--	-.002	-.003	-.012	-.001	-.013
ΔJC						
χ^2	2637.481	2675.420	2730.640	2751.072	2718.440	2738.281
df	1092	1125	1161	1197	1158	1194
AIC	21939.380	21911.319	21894.539	21842.971	21888.339	21836.180
BIC	22717.463	22563.535	22409.447	22220.570	22414.689	22225.222
CFI	.635	.634	.629	.633	.127	.124
RMSEA	.130	.128	.127	.125	.632	.635
Δχ2	--	37.939	55.220	20.432	43.020	19.841
Δdf	--	33	36	36	33	36
Pr(>χ^2)	--	.254	.021*	.983	.114	.987
Δ*CFI*	--	-.001	-.005	.004	-.507	-.003
Δ*RMSEA*	--	-.002	-.001	-.002	.504	.003

Note. *p <.05. **p <.01. WFB = work-family balance. JC = job crafting. Deltas represent changes in variable values from the from Time 1 to Time 2. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]For ΔWFB partial measurement invariance was tested by allowing the intercept of WFB item 1 to vary across groups. [b]For ΔJC partial measurement invariance was tested by allowing the intercept of JC item 6 to vary across groups.

Table 6. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Condensed Family Stage Groups (continued).

Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Partial Invariance: Scalar	Partial Invariance: Strict
ΔJCT						
χ^2	99.988	110.292	119.116	133.722	--	--
df	100	109	121	133	--	--
AIC	6697.610	6689.915	6674.738	6665.344	--	--
BIC	6987.484	6945.461	6884.515	6829.352	--	--
CFI	.978	.978	.967	.960	--	--
RMSEA	.059	.056	.066	.069	--	--
Δχ2	--	10.304	8.824	14.606	--	--
Δdf	--	9	12	12	--	--
Pr(>χ^2)	--	.326	.718	.264	--	--
Δ*CFI*	--	-.001	.001	-.001	--	--
Δ*RMSEA*	--	.012	-.012	.008	--	--
ΔJCC						
χ^2	137.05	147.55	163.936	177.453	--	--
df	100	109	121	133	--	--
AIC	7270.883	7263.383	7255.769	7245.286	--	--
BIC	7560.757	7518.930	7465.546	7409.294	--	--
CFI	.967	.966	.962	.961	--	--
RMSEA	.067	.065	.065	.063	--	--
Δχ2	--	10.500	16.386	13.517	--	--
Δdf	--	9	12	12	--	--
Pr(>χ^2)	--	.312	.174	.333	--	--
Δ*CFI*	--	-.001	-.004	-.001	--	--
Δ*RMSEA*	--	-.002	.000	-.002	--	--

Note. **p* <.05. ***p* <.01. JCT = task crafting. JCC = cognitive crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 6. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Condensed Family Stage Groups (continued).

Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Partial Invariance[a] Scalar	Partial Invariance[a] Strict
ΔJCR						
χ^2	129.476	137.676	164.487	186.546	149.415	169.830
df	100	109	121	133	118	130
AIC	7078.712	7068.911	7071.722	7069.781	7062.651	7059.066
BIC	7368.586	7324.458	7281.500	7233.789	7283.871	7234.516
CFI	.978	.978	.967	.960	.056	.060
RMSEA	.059	.056	.066	.069	.976	.970
Δχ2	--	8.200	26.811	22.059	11.739	20.415
Δdf	--	9	12	12	9	12
Pr(>χ^2)	--	.102	.008**	.037*	.228	.060
Δ*CFI*	--	.000	-.011	-.007	-.922	.004
Δ*RMSEA*	--	-.003	.010	.003	.920	-.006

Note. *p <.05. **p <.01. JCR = relational crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a] ΔJCT partial measurement invariance was tested by allowing the intercept of JC item 12 to vary across groups.

Table 7. Observed and Latent Study Variable Means, Standard Deviations, Scale Reliabilities, and Intercorrelations.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
Time 1 - Observed												
1. Gender												
2. Age	-.187**											
3. Role Prioritization	.018	-.011										
4. Job Crafting	.094	.019	.027									
5. Task Crafting	.072	.022	.041	.774**								
6. Cognitive Crafting	.061	.094	.029	.774**	.461**							
7. Relational Crafting	.080	-.069	-.006	.731**	.333**	.304**						
8. Work-Family Balance	-.129*	.154**	-.176**	.189**	.135*	.140*	.156**					
Time 2 - Observed												
9. Role Prioritization	.034	-.072	.632**	.001	.036	.021	-.052	-.238**				
10. Job Crafting	.135*	-.001	-.057	.629**	.478**	.445**	.508**	.188**	-.026			
11. Task Crafting	.112*	.025	-.004	.434**	.514**	.284**	.204**	.171**	-.022	.750**		
12. Cognitive Crafting	.099	.056	-.083	.469**	.338**	.519**	.215**	.116*	-.016	.786**	.447**	
13. Relational Crafting	.092	-.081	-.044	.513**	.245**	.196**	.710**	.144**	-.022	.723**	.294**	.314**
14. Work-Family Balance	-.120*	.230**	-.196**	.168**	.077	.109*	.193**	.716**	-.291**	.254**	.098	.205**
Time 1 - Latent Factor Scores												
15. Job Crafting	.094	.039	.027	.970**	.869**	.776**	.577**	.210**	.006	.641**	.549**	.504**
16. Task Crafting	.071	.013	.044	.760**	.974**	.449**	.337**	.148**	.027	.524**	.570**	.364**
17. Cognitive Crafting	.071	.085	.014	.774**	.466**	.995**	.306**	.168**	.019	.478**	.303**	.564**
18. Relational Crafting	.089	-.080	-.020	.727**	.338**	.304**	.987**	.187**	-.056	.571**	.238**	.244**
19. Work-Family Balance	-.120*	.159**	-.170**	.210**	.146**	.153**	.178**	.986**	-.243**	.215**	.171**	.142**
Time 2 - Latent Factor Scores												
20. Job Crafting	.128*	.033	-.049	.632**	.577**	.475**	.394**	.213**	-.029	.971**	.850**	.788**
21. Task Crafting	.091	.033	.006	.461**	.561**	.298**	.206**	.183**	-.010	.729**	.975**	.434**
22. Cognitive Crafting	.105	.065	-.087	.500**	.349**	.560**	.233**	.139*	-.025	.786**	.442**	.996**
23. Relational Crafting	.090	-.078	-.049	.569**	.269**	.223**	.782**	.178**	-.052	.715**	.290**	.312**
24. Work-Family Balance	-.123*	.232**	-.203**	.181**	.086	.122*	.201**	.746**	-.293**	.273**	.116*	.224**
Time 1 to Time 2 Changes												
25. ΔJob Crafting	.045	-.006	-.097	-.419**	-.360**	-.373**	-.225**	.008	-.046	.435**	.397**	.374**
26. ΔTask Crafting	.024	.023	-.044	-.348**	-.480**	-.175**	-.152**	.041	-.043	.238**	.471**	.082
27. ΔCognitive Crafting	.044	-.017	-.117*	-.261**	-.101	-.431**	-.062	-.020	-.050	.393**	.185**	.543**
28. ΔRelational Crafting	.006	-.003	-.055	-.254**	-.110*	-.134*	-.325**	-.007	.004	.306**	.113*	.143**
29. ΔWork-Family Balance	-.011	.122*	-.061	-.031	-.083			04**	-.092	.102	-.072	.134*
30. ΔRole Prioritization	.030	-.085	.000	-.021	.013			64**	.775**	.012	-.025	.047

Screenshot

Notes. * $p < .05$. ** $p < .01$. Deltas represent changes in variables from Time 1 to Time 2. ΔRole Prioritization was estimated with the residual change score method, and all other change variables were estimated in *Hypothesis 5* using the 2-WLCS method. Gender coding: 1 = male, 2 = female.

Table 7. Observed and Latent Study Variable Means, Standard Deviations, Scale Reliabilities, and Intercorrelations (continued)

Variable	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Time 1 - Observed																	
1. Gender																	
2. Age																	
3. Role Prioritization																	
4. Job Crafting																	
5. Task Crafting																	
6. Cognitive Crafting																	
7. Relational Crafting																	
8. Work-Family Balance																	
Time 2 - Observed																	
9. Role Prioritization																	
10. Job Crafting																	
11. Task Crafting																	
12. Cognitive Crafting																	
13. Relational Crafting																	
14. Work-Family Balance	.260**																
Time 1 - Latent Factor Scores																	
15. Job Crafting	.403**	.153**															
16. Task Crafting	.271**	.087	.866**														
17. Cognitive Crafting	.207**	.124*	.780**	.453**													
18. Relational Crafting	.787**	.227**	.579**	.345**	.309**												
19. Work-Family Balance	.175**	.743**	.226**	.159**	.182**	.211**											
Time 2 - Latent Factor Scores																	
20. Job Crafting	.568**	.247**	.694**	.626**	.508**	.449**	.234**										
21. Task Crafting	.284**	.092	.582**	.630**	.313**	.238**	.183**	.842**									
22. Cognitive Crafting	.321**	.248**	.531**	.371**	.607**	.263**	.166**	.788**	.428**								
23. Relational Crafting	.988**	.308**	.449**	.290**	.235**	.855**	.209**	.565**	.279**	.327**							
24. Work-Family Balance	.266**	.988**	.168**	.099	.139*	.235**	.776**	.268**	.111*	.266**	.314**						
Time 1 to Time 2 Changes																	
25. ΔJob Crafting	.220**	.124*	-.376**	-.294**	-.336**	-.157**	.014	.406**	.344**	.340**	.158**	.131*					
26. ΔTask Crafting	.015	.005	-.329**	-.430**	-.163**	-.125*	.028	.251**	.430**	.066	-.012	.014	.741**				
27. ΔCognitive Crafting	.148**	.153**	-.230**	-.062	-.383**	-.031	-.005	.364**	.157**	.502**	.125*	.158**	.760**	.254**			
28. ΔRelational Crafting	.424**	.166**	-.211**	-.083	-.122*	-.212**	.009	.246**	.093	.138*	.326**	.163**	.583**	.205**	.293**		
29. ΔWork-Family Balance	.151**	.420**	-.074	-.081	-.053	.049	-.278**	.066	-.098	.163**	.172**	.390**	.179**	-.020	.248**	.235**	
30. ΔRole Prioritization	.007	-.216**	-.014	-.001	.012		002	-.018	.038	-.027	-.213**	.020	-.020	.031	.051	-.070	

Screenshot

Notes. * $p < .05$. ** $p < .01$. Deltas represent changes in variables from Time 1 to Time 2. ΔRole Prioritization was estimated with the residual change score method, and all other change variables were estimated in *Hypothesis 5* using the 2-WLCS method. Gender coding: 1 = male, 2 = female.

Table 8. Means and Standard Deviations of Study Variables by Family Stage.

Dependent Variable:	Job Crafting		Task Crafting		Cognitive Crafting		Relational Crafting		Work-Family Balance		Role Prioritization	
Family Stage	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Time 1												
Establishment	3.29	.64	3.51	.81	3.32	.92	3.05	.89	3.00	.98	3.48	1.01
Very Young	3.30	.66	3.54	.80	3.38	.87	2.99	.96	2.97	.99	2.71	.75
Preschool	3.34	.68	3.54	.86	3.43	.90	3.03	.89	3.10	.90	2.70	.78
School-age	3.28	.70	3.46	.87	3.45	.98	2.93	.90	3.08	.99	2.63	.82
Teenage	3.26	.69	3.54	.79	3.37	.87	2.87	.92	3.34	.86	2.77	.91
Empty Nest	3.38	.70	3.57	.84	3.56	.95	3.01	.92	3.57	.95	3.12	.97
Time 2												
Establishment	3.24	.72	3.39	.87	3.39	.98	2.95	.91	3.00	.97	3.69	.91
Very Young	3.26	.71	3.50	.85	3.27	.93	3.01	.91	2.94	.94	2.83	.80
Preschool	3.18	.69	3.60	.77	3.14	.98	2.81	1.07	2.72	.86	2.64	.90
School-age	3.17	.66	3.47	.89	3.42	.92	2.62	.96	2.88	1.06	2.86	.80
Teenage	3.33	.69	3.51	.73	3.40	.89	3.06	.90	3.38	.91	2.77	.94
Empty Nest	3.27	.66	3.51	.84	3.47	.93	2.82	.92	3.53	1.05	2.98	.96

Note. M = mean. SD = standard deviation.

Table 9. Work-Family Balance Time 1 by Family Stage.

	Work-Family Balance		
Family Stage	N	*M*	*SD*
Establishment	217	3.00[a]	.98
Very Young	176	2.97[a]	.99
Preschool	118	3.10[a]	.90
School-age	240	3.08[a]	.99
Teenage	141	3.34[b]	.86
Empty Nest	519	3.57[c]	.94

Note. Means with shared superscript do not differ significantly. M = mean. SD = standard deviation.

Table 10. Hierarchical Regression of Job Crafting Time 1 on Work-Family Balance Time 2 Moderated by Role Prioritization Time 1.

	Dependent Variable: WFB									
	Step 1					Step 2				
Independent Variable / Predictive Paths	B	*SE*	*p*	Tolerance	VIF	B	*SE*	*p*	Tolerance	VIF
JC										
Constant	3.184	.055	.000*			3.184	.055	.000*		
RP	-.217	.057	.000*	.999	1.001	-.212	.058	.000*	.999	1.001
JC	.268	.082	.001*	.999	1.001	.268	.082	.001*	.979	1.022
JC x RP						.055	.086	.521	.980	1.021
F			12.206*					8.260*		
R^2			.068*					.070*		
ΔF								.412		
ΔR^2								.001		
JCT										
Constant	3.184	.056	.000*			3.184	.056	.000*		
RP	-.216	.058	-.199	.998	1.001	-.212	.058	.000*	.992	1.008
JCT	.104	.066	.085	.998	1.001	.268	.066	.121	.997	1.003
JCT x RP						.055	.070	.484	.992	1.008
F			7.923*					5.438*		
R^2			.046*					.047*		
ΔF								.494		
ΔR^2								.001		

Note. *$p < .05$. WFB = work-family balance at Time 2. JC = job crafting at Time 1. JCT = task crafting at Time 1. RP = role prioritization Time 1. B = unstandardized beta coefficient parameter estimates. SE= standard error. Predictor variables were mean centered. VIF = variance inflation factor.

Table 10. Hierarchical Regression of Job Crafting Time 1 on Work-Family Balance Time 2 Moderated by Role Prioritization Time 1 (continued).

	Dependent Variable: WFB									
	Step 1					Step 2				
Independent Variable / Predictive Paths	B	*SE*	*p*	Tolerance	VIF	B	*SE*	*p*	Tolerance	VIF
JCC										
Constant	3.184	.055	.000*			3.184	.055	.000*		
RP	-.216	.058	.000*	.999	1.001	-.215	.058	.000*	.998	1.002
JCC	.133	.062	.033*	.999	1.001	.132	.063	.036*	.995	1.005
JCC x RP						.023	.063	.712	.949	1.053
F			8.995*					6.027*		
R^2			.051*					.052*		
ΔF								.136		
ΔR^2								.001		
JCR										
Constant	3.181	.055	.000*			3.182	.054	.000*		
RP	-.214	.057	.000*	1.000	1.000	-.189	.058	.001*	.953	1.049
JCR	.216	.059	.000*	1.000	1.000	.224	.059	.000*	.996	1.004
JCR x RP						.129	.065	.049*	.949	1.053
F			13.696*					10.518*		
R^2			.076*					.087*		
ΔF								3.919*		
ΔR^2								.011*		

Note. *$p < .05$. WFB = work-family balance at Time 2. JCC = cognitive crafting at Time 1. JCR = relational crafting at Time 1. RP = role prioritization Time 1. B = unstandardized beta coefficient parameter estimates. SE= standard error. Predictor variables were mean centered. VIF = variance inflation factor.

Table 11. Means and Variances of Change Variables by Condensed Family Stage.

Family Stage	ΔWFB				ΔJC				ΔJCT			
	μ^2	*p*	σ^2	*p*	μ^2	*p*	σ^2	*p*	μ^2	*p*	σ^2	*p*
Entire Sample	-.08	.06	.52	.00*	-.04	.40	.53	.00*	-.01	.79	.66	.00*
Establishment	-.15	.21	.72	.00*	-.08	.41	.36	.00*	-.11	.25	.23	.00*
Younger Child	-.16	.09	.49	.00*	.02	.83	.61	.00*	.06	.59	.47	.00*
Older Child	-.16	.05*	.53	.00*	.02	.87	.56	.00*	.06	.47	.43	.00*
Empty Nest	.05	.41	.41	.00*	-.06	.43	.54	.00*	-.05	.51	.42	.00*

Family Stage	ΔJCC				ΔJCR			
	μ^2	*p*	σ^2	*p*	μ^2	*p*	σ^2	*p*
Entire Sample	-.03	.60	.75	.00*	-.09	.20	.34	.00*
Establishment	-.04	.70	.30	.00*	-.09	.32	.21	.00*
Younger Child	-.00	.97	.36	.00*	.00	.96	.15	.01*
Older Child	-.00	.98	.56	.00*	-.04	.59	.22	.00*
Empty Nest	-.04	.07	.47	.00*	-.06	39	.29	.00*

Note. * $p \leq .05$. μ^2 = variable means. σ^2 = variable variance. WFB = work-family balance. JC = job crafting. JCT = task crafting. JCC = cognitive crafting. JCR = relational crafting. Deltas represent changes in variables from Time 1 to Time 2 estimated using the 2-WLCS method.

Table 12. Model Results of Changes in Job Crafting on Changes in Work-Family Balance.

	Dependent Variable: ΔWFB						
	Independent Variable: ΔJC						
Fit Indices/ Models	Model 0	Model 1	Model 0_{RP}	Model 2	Model 3	Model 4	Model 5
χ^2	1965.889	1960.340	2017.361	2013.086	--	4602.858	4605.117
df	554	553	587	586	--	2437	2440
LL	-14491.601	-14488.827	-14488.827	-14486.689	-14486.692	-14453.307	-14489.017
AIC	29133.202	29129.654	29129.654	29127.378	29129.383	29136.035	29132.294
BIC	29419.262	29419.527	29419.527	29421.066	29426.885	29437.351	29422.168
RMSEA	.087	.087	.085	.085	--	.103	.103
CFI	.805	.806	.803	.803	--	.726	.726
Predictive Paths							
ΔJC	.000	.191* (.082)	.191* (.082)	.176* (.082)	.185 (.282)		
RP			.000	-.088* (.042)	-.088* (.042)		
ΔJC x RP					-.003 (.086)		
Predictive Path by Family Stage Group							
ΔJC							
Establishment						.142 (.225)	.197* (.082)
Younger Child						.334* (.71)	.197* (.082)
Older Child						.288 (.150)	.197* (.082)
Empty Nest						.052 (.134)	.197* (.082)

Model Comparisons	Model 0 v. Model 1	Model 0_{RP} v. Model 2	Model 2 v. Model 3	Model 4 v. Model 5
$\Delta\chi^2$	5.549	4.275	--	2.259
Δdf	1	1	1	3
D	--	--	-.006	--
$Pr(>\chi^2)$	.018*	.039*	--[a]	.520
Δ*RMSEA*	.000	.000	--	.000
Δ*CFI*	-.001	.000	--	.000
Preferred Model	Model 1	Model 2		Model 5

Note. *$p < .05$. **$p < .01$. WFB = work-family balance. JC = job crafting. RP = role prioritization. SE = standard error, presented in parentheses following unstandardized beta coefficient parameter estimates. χ^2 = chi-square value. df = degrees of freedom. LL = log-likelihood. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *RMSEA* = root mean square error of approximation. *CFI* = comparative fit index. Deltas represent changes in variable values from the from Time 1 to Time 2 for variable, and changes in fit statistics for model comparisons. *D* = is a likelihood-ratio test value used to compare fit of models with latent interaction variables. $Pr(>\chi^2)$ = the probability that null hypothesis of a likelihood-ratio test based on changes in χ^2 or *D* should be rejected. [a]Significance testing could not be conducted as *D* was negative.

Table 12. Model Results of Changes in Job Crafting on Changes in Work-Family Balance (continued).

	Dependent Variable: ΔWFB						
	Independent Variable: ΔJCT						
Fit Indices/ Models	Model 0	Model 1	Model 0_{RP}	Model 2	Model 3	Model 4	Model 5
χ^2	242.109	241.956	274.044	269.028	--	913.757	914.094
df	146	145	163	162	--	709	712
LL	-6953.234	-6953.158	-6953.158	-6950.650	-6950.518	-6954.103	-6954.272
AIC	13992.469	13994.317	13994.317	13991.301	13993.037	14002.207	13996.543
BIC	14156.476	14162.138	14162.138	14162.937	14168.487	14181.471	14164.365
RMSEA	.044	.045	.045	.044	--	.059	.058
CFI	.978	.978	.975	.976	--	.954	.955
Predictive Paths							
ΔJCT	.000	-.025 (.065)	-.025 (.065)	-.031 (.065)	-.139 (.220)		
RP			.000	-.096* (.065)	-.098* (.043)		
ΔJCT x RP					.036 (.070)		
Predictive Path by Family Stage Group							
ΔJCC							
Establishment						-.070 (.183)	-.022 (.065)
Younger Child						.022 (.138)	-.022 (.065)
Older Child						-.066 (.125)	-.022 (.065)
Empty Nest						.000 (.107)	-.022 (.065)

Model Comparisons	Model 0 v. Model 1	Model 0_{RP} v. Model 2	Model 2 v. Model 3	Model 4 v. Model 5
$\Delta\chi^2$	.153	5.016	--	.337
Δdf	1	1	1	3
D	--	--	.264	--
$Pr(>\chi^2)$	.696	.025*	.607	.953
Δ*RMSEA*	-.001	.001	--	-.001
Δ*CFI*	.000	-.001	--	.001
Preferred Model	Model 0	Model 2		Model 5

Note. *$p < .05$. **$p < .01$. WFB = work-family balance. JCT = task crafting. RP = role prioritization. SE = standard error, presented in parentheses following unstandardized beta coefficient parameter estimates. χ^2 = chi-square value. df = degrees of freedom. LL = log-likelihood. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *RMSEA* = root mean square error of approximation. *CFI* = comparative fit index. Deltas represent changes in variable values from the from Time 1 to Time 2 for variable, and changes in fit statistics for model comparisons. *D* = is a likelihood-ratio test value used to compare fit of models with latent interaction variables. $Pr(>\chi^2)$ = the probability that null hypothesis of a likelihood-ratio test based on changes in χ^2 or *D* should be rejected.

Table 12. Model Results of Changes in Job Crafting on Changes in Work-Family Balance (continued).

	Dependent Variable: ΔWFB						
	Independent Variable: ΔJCC						
Fit Indices/ Models	Model 0	Model 1	Model 0_{RP}	Model 2	Model 3	Model 4	Model 5
χ^2	280.709	270.020	308.188	304.537	--	1020.722	1025.692
df	146	145	163	162	--	709	712
LL	-7242.496	-7237.151	-7237.151	-7235.325	-7235.327	-7235.849	-7238.334
AIC	14570.991	14562.302	14562.302	14560.651	14562.653	14565.699	14564.668
BIC	14734.999	14730.124	14730.124	14732.287	14738.103	14744.963	14732.490
RMSEA	.052	.051	.052	.051	--	.072	.073
CFI	.969	.971	.967	.968	--	.930	.930
Predictive Paths							
ΔJCC	.000	.197** (.061)	.197** (.061)	.184** (.061)	.189 (.211)		
RP			.000	-.080 (.042)	-.080 (.042)		
ΔJCC x RP					-.002 (.065)		
Predictive Path by Family Stage Group							
ΔJCC							
Establishment						.338 (.179)	.198** (.061)
Younger Child						.394** (.137)	.198** (.061)
Older Child						.200 (.103)	.198** (.061)
Empty Nest						.052 (.097)	.198** (.061)

Model Comparisons	Model 0 v. Model 1	Model 0_{RP} v. Model 2	Model 2 v. Model 3	Model 4 v. Model 5
$\Delta\chi^2$	10.689	3.651	--	4.970
Δdf	1	1	1	3
D	--	--	-.004	--
$Pr(>\chi^2)$	.001**	.056	--[a]	.174
Δ*RMSEA*	.001	.001	--	.001
Δ*CFI*	-.002	-.001	--	.000
Preferred Model	Model 1	Model 2		Model 5

Note. *$p < .05$. **$p < .01$. WFB = work-family balance. JCC = cognitive crafting. RP = role prioritization. SE = standard error, presented in parentheses following unstandardized beta coefficient parameter estimates. χ^2 = chi-square value. df = degrees of freedom. LL = log-likelihood. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *RMSEA* = root mean square error of approximation. *CFI* = comparative fit index. Deltas represent changes in variable values from from Time 1 to Time 2, and changes in fit statistics for model comparisons. *D* = is a likelihood-ratio test value used to compare fit of models with latent interaction variables. $Pr(>\chi^2)$ = the probability that null hypothesis of a likelihood-ratio test based on changes in χ^2 or *D* should be rejected. [a]Significance testing could not be conducted as *D* was negative.

Table 12. Model Results of Changes in Job Crafting on Changes in Work-Family Balance (continued).

	Dependent Variable: ΔWFB						
	Independent Variable: ΔJCR						
Fit Indices/ Models	Model 0	Model 1	Model 0_{RP}	Model 2	Model 3	Model 4	Model 5
χ^2	293.608	287.119	321.329	316.417	--	1042.578	1049.796
df	146	145	163	162	--	709	712
LL	-7149.959	-7146.714	-7146.714	-7144.258	-7144.242	-7144.308	-7147.917
AIC	14385.917	14381.429	14381.429	14378.517	14380.484	14382.616	14383.835
BIC	14549.925	14549.251	14549.251	14550.152	14555.934	14561.881	14551.656
RMSEA	.055	.054	.054	.053	--	.075	.075
CFI	.968	.969	.966	.966	--	.929	.928
Predictive Paths							
ΔJCR	.000	.256* (.102)	.256* (.102)	.247* (.102)	.308 (.335)		
RP			.000	-.092* (.042)	-.093* (.042)		
ΔJCR x RP					-.020 (.106)		
Predictive Path by Family Stage Group							
ΔJCR							
Establishment						.058 (.266)	.262* (.102)
Younger Child						.395 (.224)	.262* (.102)
Older Child						.622** (.190)	.262* (.102)
Empty Nest						.018 (.153)	.262* (.102)
Model Comparisons	Model 0 v. Model 1		Model 0_{RP} v. Model 2		Model 2 v. Model 3		Model 4 v. Model 5
$\Delta\chi^2$	6.489		4.912		--		7.218
Δdf	1		1		1		3
D	--		--		.032		--
$Pr(>\chi^2)$	.011*		.027*		.858		.065
Δ*RMSEA*	.001		.001		--		.000
Δ*CFI*	-.001		.000		--		-.001
Preferred Model	Model 1		Model 2		Model 5		

Note. *$p < .05$. **$p < .01$. WFB = work-family balance. JCR = relational crafting. RP = role prioritization. SE = standard error, presented in parentheses following unstandardized beta coefficient parameter estimates. χ^2 = chi-square value. df = degrees of freedom. LL = log-likelihood. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *RMSEA* = root mean square error of approximation. *CFI* = comparative fit index. Deltas represent changes in variable values from the from Time 1 to Time 2 for variable, and changes in fit statistics for model comparisons. *D* = is a likelihood-ratio test value used to compare fit of models with latent interaction variables. $Pr(>\chi^2)$ = the probability that null hypothesis of a likelihood-ratio test based on changes in χ^2 or *D* should be rejected.

Table 13. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Gender Groups.

					Partial Invariance[a]	
Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Scalar	Strict
ΔWFB						
χ^2	183.774	184.526	191.173	217.513	--	--
df	84	88	93	98	--	--
AIC	7337.151	7329.904	7326.551	7342.890	--	--
BIC	7512.463	7489.972	7467.563	7464.847	--	--
CFI	.969	.970	.970	.963	--	--
RMSEA	.084	.081	.080	.085	--	--
$\Delta\chi^2$	--	.752	6.647	26.340	--	--
Δdf	--	4	5	5	--	--
Pr(>χ^2)	--	.945	.248	.000**	--	--
Δ*CFI*	--	.001	.000	-.007	--	--
Δ*RMSEA*	--	.003	.000	-.004	--	--
ΔJC						
χ^2	1885.556	1901.017	1924.177	1953.417	1918.078	1947.795
df	546	557	569	581	568	580
AIC	21712.389	21705.850	21705.010	21710.250	21700.911	21706.628
BIC	22101.126	22052.664	22006.090	21965.597	22005.803	21965.786
CFI	.661	.660	.657	.653	.119	.119
RMSEA	.121	.120	.119	.119	.659	.654
$\Delta\chi^2$	--	15.461	23.160	29.240	17.061	29.717
Δdf	--	11	12	12	11	12
Pr(>χ^2)	--	.162	.026*	.004**	.106	.003**
Δ*CFI*	--	-.001	-.003	-.004	.000	.000
Δ*RMSEA*	--	-.001	-.001	.000	.000	-.005

Note. *p <.05. **p <.01. WFB = work-family balance. JC = job crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]For ΔJC partial measurement invariance was tested by allowing the intercept of JC item 12 to vary across groups.

Table 13. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Gender Groups (continued).

Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Partial Invariance[a] Scalar	Partial Invariance[a] Strict
ΔJCT						
χ^2	51.303	57.51	63.331	80.042	--	--
df	50	53	57	61	--	--
AIC	6583.673	6583.881	6581.702	6590.412	--	--
BIC	6728.497	6717.271	6699.847	6693.313	--	--
CFI	.971	.971	.970	.969	--	--
RMSEA	.067	.065	.064	.063	--	--
$\Delta\chi^2$	--	.559	5.821	16.711	--	--
Δdf	--	3	4	4	--	--
Pr(>χ^2)	--	.906	.213	.002**	--	--
Δ*CFI*	--	-.003	-.001	-.011	--	--
Δ*RMSEA*	--	.011	.003	.017	--	--
ΔJCC						
χ^2	70.196	70.584	93.207	120.27	78.751	99.843
df	50	53	57	61	56	59
AIC	7179.488	7173.876	7188.499	7207.562	7176.044	7191.136
BIC	7324.311	7307.266	7306.645	7310.463	7298	7301.659
CFI	.982	.984	.968	.946	.049	.064
RMSEA	.049	.045	.062	.076	.979	.963
$\Delta\chi^2$	--	.388	22.623	27.063	8.167	21.092
Δdf	--	3	4	4	3	3
Pr(>χ^2)	--	.943	.000**	.000**	.043*	.000**
Δ*CFI*	--	-.001	-.003	-.004	.000	.000
Δ*RMSEA*	--	-.001	-.001	.000	.000	-.005

Note. *p <.05. **p <.01. JCT = task crafting. JCC = cognitive crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]For ΔJCC partial measurement invariance was tested by allowing the intercepts of JC items 5 and 8 to vary across groups.

Table 13. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Gender Groups (continued).

Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Partial Invariance	
					Scalar	Strict
ΔJCR						
χ^2	87.954	90.084	95.892	100.988	--	--
df	50	53	57	61	--	--
AIC	7032.366	7028.496	7026.304	7023.401	--	--
BIC	7177.190	7161.886	7144.450	7126.301	--	--
CFI	.971	.971	.970	.969	--	--
RMSEA	.067	.065	.064	.063	--	--
$\Delta\chi^2$	--	2.130	5.808	5.096	--	--
Δdf	--	3	4	4	--	--
$Pr(>\chi^2)$	--	.546	.214	.278	--	--
Δ*CFI*	--	.000	-.001	-.001	--	--
Δ*RMSEA*	--	-.002	-.001	-.001	--	--

Note. *p <.05. **p <.01. JCR= relational crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. $Pr(>\chi^2)$ = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 14. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Family Stage and Gender Groups.

					Partial Invariance	
Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Scalar	Strict
ΔWFB						
χ^2	556.857	586.223	629.576	727.963	--	--
df	371	399	434	469	--	--
AIC	7378.843	7352.209	7325.562	7353.949	--	--
BIC	7946.703	7813.357	7653.320	7548.318	--	--
CFI	.943	.942	.940	.920	--	--
RMSEA	.110	.106	.104	.115	--	--
$\Delta\chi^2$	--	29.366	43.353	98.387	--	--
Δdf	--	28	35	35	--	--
Pr(>χ^2)	--	.394	.157	.000**	--	--
Δ*CFI*	--	-.001	-.002	-.020	--	--
Δ*RMSEA*	--	.003	.002	-.011	--	--
ΔJCT						
χ^2	255.797	286.523	314.404	369.851	--	--
df	228	249	277	305	--	--
AIC	6653.079	6641.805	6613.686	6613.133	--	--
BIC	7125.660	7034.353	6899.522	6792.257	--	--
CFI	.966	.968	.950	.938	--	--
RMSEA	.069	.065	0.076	.080	--	--
$\Delta\chi^2$	--	30.726	27.881	55.447	--	--
Δdf	--	21	28	28	--	--
Pr(>χ^2)	--	.943	.471	.002**	--	--
Δ*CFI*	--	.002	-.018	-.012	--	--
Δ*RMSEA*	--	-.004	.011	.004	--	--

Note. *p <.05. **p <.01. WFB = work-family balance. JCT = task crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 14. Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Family Stage and Gender Groups (continued).

Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Partial Invariance[ab] Scalar	Partial Invariance[ab] Strict
ΔJCC						
χ^2	290.906	317.555	372.575	449.48	340.04	419.545
df	228	249	277	305	263	291
AIC	7223.201	7207.850	7206.870	7227.775	7202.336	7225.840
BIC	7695.783	7600.398	7492.706	7406.899	7541.528	7458.320
CFI	.947	.942	.919	.877	.935	.891
RMSEA	.081	.081	.091	.107	.084	.103
$\Delta\chi^2$	--	26.649	55.020	76.905	22.485	79.505
Δdf	--	21	28	28	14	28
Pr(>χ^2)	--	.183	.002*	.001*	.069	.001*
Δ*CFI*	--	-.005	-.023	-.042	-.007	-.044
Δ*RMSEA*	--	.000	.010	.016	.003	.019
ΔJCR						
χ^2	273.012	292.286	344.295	387.512	306.808	349.697
df	228	249	277	305	263	291
AIC	7094.950	7072.224	7068.233	7055.451	7058.747	7045.635
BIC	7567.531	7464.771	7354.068	7234.574	7397.938	7278.115
CFI	.966	.968	.950	.938	.967	.956
RMSEA	.069	.065	.076	.080	.063	.070
$\Delta\chi^2$	--	19.274	52.009	43.217	14.522	42.889
Δdf	--	21	28	28	14	28
Pr(>χ^2)	--	.102	.008*	.037*	.412	.036*
Δ*CFI*	--	.002	-.018	-.012	-.001	-.011
Δ*RMSEA*	--	-.004	.011	.004	-.002	.007

Note. *p <.05. **p <.01. JCC = cognitive crafting. JCR = relational crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]For ΔJCC partial measurement invariance was tested by allowing the intercepts of JC items 5 and 6 to vary across groups. [b]For ΔJCR partial measurement invariance was tested by allowing the intercepts of JC items 9 and 12 to vary across groups.

Table 15. Exploratory Model Results of Changes in Job Crafting on Changes in Work-Family Balance.

	Dependent Variable: ΔWFB					
	Independent Variable: ΔJC					
Fit Indices/ Models	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	2802.787	2806.819	--	--	--	--
df	1181	1182	--	--	--	--
AIC	29024.287	29026.319	--	--	--	--
BIC	29317.745	29315.966	--	--	--	--
RMSEA	.091	.091	--	--	--	--
CFI	.779	.778	--	--	--	--
Predictive Path by G						
ΔJC						
Male	.110 (.098)	.215* (.085)				
Female	.464** (.154)	.215* (.085)				
Predictive Path by FS x G						
ΔJC						
Male						
Establishment			--	--	--	--
Younger Child			--	--	--	--
Older Child			--	--	--	--
Empty Nest			--	--	--	--
Female						
Establishment			--	--	--	--
Younger Child			--	--	--	--
Older Child			--	--	--	--
Empty Nest			--	--	--	--
Model Comparisons	Model 6 v. Model 7		Model 8 v. Model 11	Model 8 v. Model 9	Model 8 v. Model 10	
Δχ 2	4.032		--	--	--	
Δdf	1		--	--	--	
Pr(>χ^2)	.045*		--	--	--	
Δ*RMSEA*	0		--	--	--	
Δ*CFI*	-.001		--	--	--	
Preferred Model	Model 6			--		

Note. * p <.05. **p<.01. WFB = work-family balance. JC = job crafting. G = gender. FS = condensed family stage. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(<χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 15. Exploratory Model Results of Changes in Job Crafting on Changes in Work-Family Balance (continued)

	Dependent Variable: ΔWFB					
	Independent Variable: ΔJCT					
Fit Indices/ Models	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	489.497	490.174	2137.141	2140.883	2141.262	2141.532
df	333	334	1461	1467	1465	1468
AIC	13922.356	13921.032	13932.481	13924.224	13928.603	13922.872
BIC	14093.857	14088.723	14126.849	14095.725	14107.726	14090.562
RMSEA	.053	.053	.105	.105	.105	.105
CFI	.965	.965	.861	.861	.861	.861
Predictive Path by G						
ΔJCT						
Male	-.056 (.081)	-.017 (.066)				
Female	.059 (.114)	-.017 (.066)				
Predictive Path by FS x G						
ΔJCT						
Male						
Establishment			.204 (.250)	-.054 (.081)	-.019 (.192)	-.016 (.066)
Younger Child			-.092 (.217)	-.054 (.081)	.024 (.138)	-.016 (.066)
Older Child			-.155 (.144)	-.054 (.081)	-.067 (.125)	-.016 (.066)
Empty Nest			-.031 (.120)	-.054 (.081)	-.002 (.108)	-.016 (.066)
Female						
Establishment			-.328 (.295)	-.058 (.114)	-.019 (.192)	-.016 (.066)
Younger Child			.100 (.177)	-.058 (.114)	.024 (.138)	-.016 (.066)
Older Child			.198 (.248)	-.058 (.114)	-.067 (.125)	-.016 (.066)
Empty Nest			.108 (.233)	-.058 (.114)	-.002 (.108)	-.016 (.066)
Model Comparisons	Model 6 v. Model 7		Model 8 v. Model 11	Model 8 v. Model 9		Model 8 v. Model 10
$\Delta\chi$ 2	.677		4.391	3.742		4.121
Δdf	1		7	6		4
$Pr(>\chi^2)$	.411		.734	.712		.390
Δ*RMSEA*	.000		.000	-8.257		.000
Δ*CFI*	.000		.000	-31.124		.000
Preferred Model	Model 6			Model 11		

Note. * p <.05. **p<.01. WFB = work-family balance. JC = job crafting. G = gender. FS = condensed family stage. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. $Pr(<\chi^2)$ = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 15. Exploratory Model Results of Changes in Job Crafting on Changes in Work-Family Balance (continued)

	Dependent Variable: ΔWFB					
	Independent Variable: ΔJCC					
Fit Indices/ Models	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	--	--	2272.493	--	2287.336	2293.730
df	--	--	1461	--	1465	1468
AIC	--	--	14514.781	--	14521.524	14522.018
BIC	--	--	14709.149	--	14700.647	14689.708
RMSEA	--	--	.115	--	.116	.116
CFI	--	--	.833	--	.831	.830
Predictive Path by G						
ΔJCC						
Male	--	--				
Female	--	--				
Predictive Path by FS x G						
ΔJCC						
Male						
Establishment			.096 (.262)	--	.487* (.192)	.214** (.062)
Younger Child			.313 (.179)	--	.398** (.137)	214** (.062)
Older Child			.055 (.117)	--	.203* (.103)	214** (.062)
Empty Nest			.205 (.115)	--	.055 (.098)	214** (.062)
Female						
Establishment			.830** (.254)	--	.487* (.192)	214** (.062)
Younger Child			.507** (.194)	--	.398** (.137)	214** (.062)
Older Child			.552** (.184)	--	.203* (.103)	214** (.062)
Empty Nest			-.270 (.162)	--	.055 (.098)	214** (.062)
Model Comparisons	Model 6 v. Model 7	Model 8 v. Model 11		Model 8 v. Model 9	Model 8 v. Model 10	
Δχ 2	--	21.237		--	14.843	
Δdf	--	7		--	4	
Pr(>χ^2)	--	.033**		--	.005**	
Δ*RMSEA*	--	.001		--	.001	
Δ*CFI*	--	-.003		--	-.002	
Preferred Model	--	Model 8				

Note. * p <.05. **p<.01. WFB = work-family balance. JC = job crafting. G = gender. FS = condensed family stage. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(<χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 15. Exploratory Model Results of Changes in Job Crafting on Changes in Work-Family Balance (continued)

	Dependent Variable: ΔWFB					
	Independent Variable: ΔJCR					
Fit Indices/ Models	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	534.628	538.828	2133.086	2144.182	2142.454	2148.929
df	333	334	1461	1467	1465	1468
AIC	14335.622	14337.821	14336.958	14336.054	14338.326	14338.801
BIC	14507.123	14505.511	14531.326	14507.555	14517.450	14506.491
RMSEA	.060	.061	.105	.105	.105	.105
CFI	.956	.955	.864	.863	.863	.862
Predictive Path by G						
ΔJCR						
Male	.139 (.124)	.284** (.105)				
Female	.565** (.177)	.284** (.105)				
Predictive Path by FS x G						
ΔJCR						
Male						
Establishment			.508 (.379)	.132 (.124)	.184 (.282)	.286** (.105)
Younger Child			.374 (.298)	.132 (.124)	.395 (.227)	.286** (.105)
Older Child			.135 (.249)	.132 (.124)	.627** (.193)	.286** (.105)
Empty Nest			-.031 (.169)	.132 (.124)	.025 (.156)	.286** (.105)
Female						
Establishment			-.158 (.399)	.585** (.177)	.184 (.282)	.286** (.105)
Younger Child			.432 (.337)	.585** (.177)	.395 (.227)	.286** (.105)
Older Child			1.106** (.277)	.585** (.177)	.627** (.193)	.286** (.105)
Empty Nest			.284 (.352)	.585** (.177)	.025 (.156)	.286** (.105)
Model Comparisons	Model 6 v. Model 7		Model 8 v. Model 11	Model 8 v. Model 9		Model 8 v. Model 10
Δχ 2	4.200		15.843	11.096		9.368
Δdf	1		7	6		4
Pr(>χ^2)	.040*		.027*	.085		.053
Δ*RMSEA*	.001		.000	.000		.000
Δ*CFI*	-.001		-.002	-.001		-.001
Preferred Model	Model 6			Model 8		

Note. * p <.05. **p<.01. WFB = work-family balance. JC = job crafting. G = gender. FS = condensed family stage. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(<χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 16. Exploratory Model Results of Changes in Role Prioritization and Job Crafting on Changes in Work-Family Balance.

	Dependent Variable: ΔWFB		
	Independent Variable: ΔJC		
Fit Indices/ Models	Model $0_{\Delta RP}$	Model 12	Model 13
χ^2	2014.671	2007.879	--
df	587	586	167
LL	-14488.827	-14485.431	-14484.278
AIC	29129.654	29124.862	29124.555
BIC	29419.527	29418.550	29422.057
RMSEA	.085	.085	--
CFI	.803	.804	--
Predictive Paths			
ΔJC	.191* (.082)	.198* (.082)	.221** (.084)
ΔRP	.000	-.142* (.054)	-.152** (.055)
ΔJC x ΔRP			-.170 (.112)
Model Comparisons	Model $0_{\Delta RP}$ v. Model 12		Model 12 v. Model 13
$\Delta\chi^2$	6.792		--
Δdf	1		1
D	--		2.306
$Pr(>\chi^2)$	.009**		.129
Δ*RMSEA*	.000		--
Δ*CFI*	-.001		--
Preferred Model	Model 12		

Note. *p <.05. **p <.01. WFB = work-family balance. JC = job crafting. RP = role prioritization. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. $Pr(>\chi^2)$ = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 16. Exploratory Model Results of Changes in Role Prioritization and Job Crafting on Changes in Work-Family Balance (continued).

	Dependent Variable: ΔWFB		
	Independent Variable: ΔJCT		
Fit Indices/ Models	Model $0_{\Delta RP}$	Model 12	Model 13
χ^2	263.489	257.559	--
df	163	162	161
LL	-6953.158	-6950.193	-6950.072
AIC	13994.317	13990.387	13992.144
BIC	14162.138	14162.023	14167.594
RMSEA	.043	.042	--
CFI	.977	.979	--
Predictive Paths			
ΔJCT	-.025 (.065)	-.028 (.065)	-.025 (.065)
ΔRP	.000	-.134* (.055)	-.134* (.055)
ΔJCT x ΔRP			-.046 (.093)
Model Comparisons	Model $0_{\Delta RP}$ v. Model 12		Model 12 v. Model 13
$\Delta\chi^2$	5.930		--
Δdf	1		1
D	--		.242
$Pr(>\chi^2)$	.015*		.623
Δ*RMSEA*	.001		--
Δ*CFI*	-.002		--
Preferred Model	Model 12		

Note. *p <.05. **p <.01. JCT = task crafting. RP = role prioritization. WFB = work-family balance. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. $Pr(>\chi^2)$ = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 16. Exploratory Model Results of Changes in Role Prioritization and Job Crafting on Changes in Work-Family Balance (continued).

	Dependent Variable: ΔWFB		
	Independent Variable: ΔJCC		
Fit Indices/ Models	Model $0_{\Delta RP}$	Model 12	Model 13
χ^2	301.961	294.415	--
df	163	162	161
LL	-7237.151	-7233.378	-7230.459
AIC	14562.302	14556.755	14552.917
BIC	14730.124	14728.391	14728.367
RMSEA	.050	.049	--
CFI	.968	.970	--
Predictive Paths			
ΔJCC	.197** (.061)	.203** (.060)	.234** (.061)
ΔRP	.000	-.148** (.054)	-.157** (.054)
ΔJCC x ΔRP			-.211* (.088)
Model Comparisons	Model $0_{\Delta RP}$ v. Model 12		Model 12 v. Model 13
$\Delta\chi^2$	7.546		--
Δdf	1		1
D	--		5.838
$Pr(>\chi^2)$	.006**		.016*
Δ*RMSEA*	.001		--
Δ*CFI*	-.002		--
Preferred Model	Model 12		Model 13

Note. *p <.05. **p <.01. JCC = cognitive crafting. RP = role prioritization. WFB = work-family balance. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. $Pr(>\chi^2)$ = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Table 16. Exploratory Model Results of Changes in Role Prioritization and Job Crafting on Changes in Work-Family Balance (continued).

	Dependent Variable: ΔWFB		
	Independent Variable: ΔJCR		
Fit Indices/ Models	Model $0_{\Delta RP}$	Model 12	Model 13
χ^2	319.556	312.019	--
df	163	162	161
LL	-7146.714	-7142.946	-7142.407
AIC	14381.429	14375.892	14376.814
BIC	14549.251	14547.528	14552.264
RMSEA	.054	.053	--
CFI	.966	.967	--
Predictive Paths			
ΔJCR	.256* (.102)	.274** (.101)	.285** (.102)
ΔRP	.000	-.148** (.054)	-.160** (.055)
ΔJCR x ΔRP			-.146 (.140)
Model Comparisons	Model $0_{\Delta RP}$ v. Model 12		Model 12 v. Model 13
$\Delta\chi^2$	7.537		--
Δdf	1		1
D	--		1.078
$Pr(>\chi^2)$	.006**		.299
Δ*RMSEA*	.001		--
Δ*CFI*	-.001		--
Preferred Model	Model 12		

Note. *p <.05. **p <.01. JCR = relational crafting. RP = role prioritization. WFB = work-family balance. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. $Pr(>\chi^2)$ = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

APPENDICES

Appendix A1: Recruitment Email Time 1 for USF Participants Sent by Academic Affairs

The message below requests your participation in a NSF funded study concerned with the work design and career success of faculty members. Comments or questions should be addressed to Dr. Tammy Allen at tallen@usf.edu.

Dear Faculty Member,

Help improve the work experiences of USF faculty! Please participate in our research project.

I am the Principal Investigator of a three-year NSF funded research project intended to examine the career success of faculty in STEM fields through the lens of work design theory. I am also a faculty member and Director of the Industrial-Organizational Psychology program here at USF. You are invited to participate in this study by completing a survey.

The project provides the opportunity to survey **all USF faculty,** including both STEM and non-STEM faculty. Data will be collected that concern a variety of environmental and individual variables that contribute to faculty work experiences at USF. The results of the study have the potential to inform university practices and will contribute to our understanding of the various ways by which faculty work is designed across disciplines.

The success of the project depends on the participation of faculty. Please participate by clicking on the survey link below and completing the survey. It will take about 30 minutes of your time. We are timing the survey to coincide with the time during which many faculty are completing annual evaluations. Information from your annual evaluation or your vita can be helpful in completing portions of the survey that ask about faculty work activities.

Only aggregated responses will be used in any reports/articles. As a token of appreciation, all participants who complete the survey will be entered into a drawing for the chance to win 1 of 10 $150.00 gift cards.

This study has been approved by the USF Internal Review Board. If you have any questions, please do not hesitate to contact me at tallen@usf.edu.

As a faculty member I understand the great number of demands on your time. Thank you in advance for your assistance. It is very much appreciated.

Link to survey: Faculty Work Design Study

Sincerely,
Tammy D. Allen, PhD
Professor of Psychology
Director, Industrial and Organizational Psychology Doctoral Program
Editor, Cambridge Industrial and Organizational Psychology Series
University of South Florida
USF webpage
Google Scholar

Appendix A2: Targeted Recruitment Email Time 1 for USF Participants Sent by Researchers

Dear Dr. ${m://LastName},

We really need your help on a NSF funded research project that examines faculty career issues. Please considering participating in this project.

As a fellow faculty member, I understand the great number of demands on your time and that completing a 30-minute research survey is a lot to ask. The number of demands faced by faculty is exactly why this research is important and needs your input. Your responses will provide valuable information that will be used to inform research and practice with regard to faculty work.

Note that you do not have to complete the survey in one sitting, but can spread completion out over several days as time permits, as long as you are working from the same computer. Information from your annual evaluation or your vita can be helpful in completing portions of the survey that ask about faculty work activities.

- All participants who complete the survey will be entered into a drawing for the chance to win 1 of 10 $150.00 gift cards.
- Only aggregated responses will be used in any reports/articles.
- This study has been approved by the USF Internal Review Board.

Follow this link to the Qualtrics Survey: ${l://SurveyLink?d=Faculty Work Design Study}

Thank you again for your consideration. If you have any questions, please do not hesitate to contact me at tallen@usf.edu.

Sincerely,
Tammy D. Allen, PhD
Director, Industrial and Organizational Psychology Doctoral Program
University of South Florida
USF webpage
Google Scholar

Follow the link to opt out of future emails:
${l://OptOutLink?d=Click here to unsubscribe}

Appendix A3: Recruitment Email Time 2 for USF Participants

Dear Dr. ${m://LastName},

Help improve the work experiences of USF faculty! Please participate in our research project.

I am the Principal Investigator of a three-year NSF funded research project intended to examine the career success of faculty through the lens of work design theory. We are in year 2 of the project and you may have been invited to participate in our research last year. Regardless of previous participation, you are invited to participate this year by completing a survey.

The project provides the opportunity to survey **USF faculty,** including STEM and non-STEM faculty. Data will be collected that concern a variety of environmental and individual variables that contribute to faculty work experiences at USF. The results of the study have the potential to inform university practices and will contribute to our understanding of the various ways by which faculty work is designed across disciplines.

The success of the project depends on the participation of faculty. **If you are a USF faculty member, please participate by clicking on the survey link below and completing the survey**. It will take about 20 minutes of your time. For those who participated last year, please note that the survey this year is shorter. We are timing the survey to coincide with the time during which many faculty are completing annual evaluations. Information from your annual evaluation or your vita can be helpful in completing portions of the survey that ask about faculty work activities.

Only aggregated responses will be used in any reports/articles. As a token of appreciation, all participants who complete the survey will be entered into a drawing for the chance to win 1 of 10 $150.00 gift cards.

This study has been approved by the USF Internal Review Board (IRB #00021004). If you have any questions, please do not hesitate to contact me at tallen@usf.edu.

Link to survey for USF faculty members: ${l://SurveyLink?d=**Faculty Work Design Study Year 2**}.

Given the focus of our research, we are excluding librarians, full-time administrative faculty (e.g., Deans), visting faculty, and retired faculty. If you fit into one of those categories, please click here to opt out.

As a fellow faculty member I understand the great number of demands on your time. Thank you in advance for your assistance. It is very much appreciated.

Sincerely,
Tammy D. Allen, PhD
Professor of Psychology
Director, Industrial and Organizational Psychology Doctoral Program
University of South Florida
USF webpage
Google Scholar

Appendix A4: Recruitment Email Time 3 for USF Participants

Dear Dr. ${m://LastName},

Help improve the work experiences of USF faculty! Please participate in our research project.

I am the Principal Investigator of a three-year NSF funded research project intended to examine the career success of faculty through the lens of work design theory. We are in year 3 of the project and you may have been invited to participate in our research last year or the year before. Regardless of previous participation, you are invited to participate this year by completing a survey.

The project provides the opportunity to survey **USF faculty,** including STEM and non-STEM faculty. Data will be collected that concern a variety of environmental and individual variables that contribute to faculty work experiences at USF. The results of the study have the potential to inform university practices and will contribute to our understanding of the various ways by which faculty work is designed across disciplines.

The success of the project depends on the participation of faculty. **If you are a USF faculty member, please participate by clicking on the survey link below and completing the survey**. It will take about 20 minutes of your time. For those who participated last year, please note that the survey this year is shorter. We are timing the survey to coincide with the time during which many faculty are completing annual evaluations. Information from your annual evaluation or your vita can be helpful in completing portions of the survey that ask about faculty work activities.

Only aggregated responses will be used in any reports/articles. As a token of appreciation, all participants who complete the survey will be entered into a drawing for the chance to win 1 of 10 $150.00 gift cards.

This study has been approved by the USF Internal Review Board (IRB #00021004). If you have any questions, please do not hesitate to contact me at tallen@usf.edu.

Link to survey for USF faculty members: ${l://SurveyLink?d=**Faculty Work Design Study Year 3**}.

Given the focus of our research, we are excluding librarians, full-time administrative faculty (e.g., Deans), visting faculty, and retired faculty. If you fit into one of those categories, please click here to opt out.

As a fellow faculty member I understand the great number of demands on your time. Thank you in advance for your assistance. It is very much appreciated.

Sincerely,
Tammy D. Allen, PhD
Professor of Psychology
Director, Industrial and Organizational Psychology Doctoral Program
University of South Florida
USF webpage
Google Scholar

Appendix A5: Recruitment Email Time 1 for non-USF Participants

Dear Dr. ${m://LastName},

I am the Principal Investigator of a team conducting a research project intended to better understand the work experiences of faculty in the state of Florida. Data is being collected with regard to a variety of environmental and individual variables that contribute to faculty work experiences. There is no direct compensation for your participation, but the results of the study have the potential benefit of informing university practices and contributing to our understanding of the various ways by which faculty work is designed across disciplines.

As a faculty member of a public Florida university, you are invited to participate in this study by completing a survey. Please participate by clicking on the survey link below and completing the survey. It will take about 30 minutes of your time. Information from your annual evaluation or your vita can be helpful in completing portions of the survey that ask about faculty work activities.

Only aggregated responses will be used in any reports/articles.

This study has been approved by the University of South Florida Internal Review Board (IRB #: 00027235). If you have any questions, please do not hesitate to contact me at tallen@usf.edu.

As a faculty member I understand the great number of demands on your time. Thank you in advance for your assistance. It is very much appreciated.

Link to survey: ${l://SurveyLink?d=Faculty Work Design Study}

Sincerely,
Tammy D. Allen, PhD
Professor of Psychology
Director, Industrial and Organizational Psychology Doctoral Program
University of South Florida
USF Webpage
Google Scholar

Appendix A6: Recruitment Email Time 2 for non-USF Participants

Dear Dr. ${m://LastName},

Help improve the work experiences of faculty members! Please participate in our research project.

I am the Principal Investigator of a team conducting a research project intended to better understand the work experiences of faculty in the state of Florida. We are in year 2 of the project and you may have been invited to participate in our research last year. Regardless of previous participation, you are invited to participate this year by completing a survey.

The project provides the opportunity to survey **Florida faculty,** including STEM and non-STEM faculty. Data will be collected that concern a variety of environmental and individual variables that contribute to faculty work experiences at a Florida University. The results of the study have the potential to inform university practices and will contribute to our understanding of the various ways by which faculty work is designed across disciplines.

The success of the project depends on the participation of faculty. **If you are a faculty member, please participate by clicking on the survey link below and completing the survey**. It will take about 20 minutes of your time. For those who participated last year, please note that the survey this year is shorter. Information from recent annual evaluations or your vita can be helpful in completing portions of the survey that ask about faculty work activities.

Only aggregated responses will be used in any reports/articles.

Link to survey for Florida faculty members: ${l://SurveyLink?d=Faculty%20Work%20Design%20Study%20Year%202}

Given the focus of our research, we are excluding librarians, full-time administrative faculty (e.g., Deans), visiting faculty, and retired faculty. If you fit into one of those categories, please click here to opt out.

This study has been approved by the USF Internal Review Board (IRB #00027235). If you have any questions, please do not hesitate to contact me at tallen@usf.edu.

As a fellow faculty member, I understand the great number of demands on your time. Thank you in advance for your assistance. It is very much appreciated.

Sincerely,
Tammy D. Allen, PhD
Professor of Psychology
Director, Industrial and Organizational Psychology Doctoral Program
University of South Florida
USF webpage
Google Scholar

Appendix A7: Recruitment Email Time 3 for non-USF Participants

Dear Dr. ${m://LastName},

Help improve the work experiences of faculty members! Please participate in our research project.

I am the Principal Investigator of a team conducting a research project intended to better understand the work experiences of faculty in the state of Florida. We are in year 3 of the project and you may have been invited to participate in our research last year. Regardless of previous participation, you are invited to participate this year by completing a survey.

The project provides the opportunity to survey **Florida faculty,** including STEM and non-STEM faculty. Data will be collected that concern a variety of environmental and individual variables that contribute to faculty work experiences at a Florida University. The results of the study have the potential to inform university practices and will contribute to our understanding of the various ways by which faculty work is designed across disciplines.

The success of the project depends on the participation of faculty. **If you are a faculty member, please participate by clicking on the survey link below and completing the survey**. It will take about 20 minutes of your time. For those who participated last year, please note that the survey this year is shorter. Information from recent annual evaluations or your vita can be helpful in completing portions of the survey that ask about faculty work activities.

Only aggregated responses will be used in any reports/articles.

Link to survey for Florida faculty members: ${l://SurveyLink?d=**Faculty Work Design Study Year 3**}**.**

Given the focus of our research, we are excluding librarians, full-time administrative faculty (e.g., Deans), visiting faculty, and retired faculty. If you fit into one of those categories, please click here to opt out.

This study has been approved by the USF Internal Review Board (IRB #00027235). If you have any questions, please do not hesitate to contact me at tallen@usf.edu.

As a fellow faculty member I understand the great number of demands on your time. Thank you in advance for your assistance. It is very much appreciated.

Sincerely,
Tammy D. Allen, PhD
Professor of Psychology
Director, Industrial and Organizational Psychology Doctoral Program
University of South Florida
USF webpage
Google Scholar

Appendix B1: Demographics

1. What is your sex?: ___Male ___Female ___Other (please specify)
2. What is your age: ___
3. *Ethnicity
    a. *USF Wave 1*
        i. What is your ethnicity: ___Caucasian ___African American ___Pacific Islander ___Hispanic ___Other (please specify)
    b. *Non-USF Wave 1*
        i. Are you Hispanic or Latino?
        ii. What is your race: ___American Indian or Alaska Native ___Asian ____Black or African American ___Native Hawaiian or Other Pacific Islander ___White/Caucasian ___Other (please specify)
    c. *Waves 2 and 3*
        i. What is your ethnicity: ___White or Caucasian ___Hispanic or Latino ___Black, Afro-Caribbean, or African American ___ Native American or American Indian ___Asian/Pacific Islander ___Other (please specify)
4. What is your marital status: ___Single ___Living with Partner ___Married
5. Is your spouse/partner currently employed?: ___Yes ___No
6. Do you have children that live with you? : ___Yes ___No
7. Do any of your children have any special needs?: ___Yes ___No
8. How many children do you have that live with you?
9. *Child age
    a. *USF Wave 1*
        i. Please indicate the age of each child living at home with you? (separated by comma): ___
    b. *Non-USF Wave 1*
        i. Please indicate the ages (in years from youngest to oldest) of your children that live with you. If your child is less than 1 year old, please input '0.25' for 0-3 months, '0.5' for 4-6 months, '0.75' for 7-9 months, and '1' for 10-12 months.: ___Child 1 …. ___Child 8.
    c. *Waves 2 and 3*
        i. How old are the children that live at home with you?: ___Age of Child 1 … _Age of child 12
10. Please identify your job classification at [University].

Appendix B2: Job Crafting (Slemp & Vella-Brodrick, 2013)

Response options: Likert-type scale from 1 to 5 where 1 = "Hardly Ever" and 5 = "Very Often". Total job crafting score is the mean of all items. Facet level scores can also be created for Task, Cognitive, and Relational crafting by calculating the mean of items 1-4, 5-8, and 9-12, respectfully.

Scale instructions: Employees are frequently presented with opportunities to make their work more engaging and fulfilling. These opportunities might be as simple as making subtle changes to your work tasks to trying to view your job in a new way to make it more purposeful. Please indicate the extent that you engage in the following behaviors using the following scale:

Scale items:

1. Introduce new approaches to improve your work.
2. Change the scope or types of tasks that you complete at work.
3. Introduce new work tasks that better suit your skills or interests.
4. Give preference to work tasks that suit your skills or interests.
5. Think about how your job gives your life purpose.
6. Remind yourself about the significance your work has for the success of the [University]. *
7. Remind yourself of the importance of your work for the broader community.
8. Reflect on the role your job has for your overall well-being.
9. Make an effort to get to know people well at work.
10. Organize or attend work related social functions.
11. Organize special events in the workplace (e.g., celebrating a co-worker's birthday).
12. Make friends with people at work who have similar skills or interests.

*Wording modified from "organization" to participant's specific university of employment.

Scale calculation: Job crafting scale calculated from mean of items 1-12.
Task crafting scale calculated from mean of items 1-4.
Relational crafting scale calculated from mean of items 5-8.
Cognitive crafting scale calculated from mean of items 9-12.

Appendix B3: Work-Family Balance (Allen & Kiburz, 2012)

Response options: Likert scale from 1 to 5 where 1 = "Strongly Disagree", 2 = "Disagree", 3 = "Neutral", 4 = "Agree", and 5 = "Strongly Agree".

Scale instructions: Please indicate the extent that you agree or disagree with the following statement.

Scale items:

1. I am able to balance the demands of my work and the demands of my family.
2. I am satisfied with the balance I have achieved between my work life and my family life.
3. Overall, I believe that my work and family lives are out of balance.*
4. I balance my work and family responsibilities so that one does not upset the other.
5. I experience a high level of work-family balance.

*Reverse coded item.

Scale calculation: Work-Family Balance scale calculated by reverse coding item 3 and then calculating the means of items 1-5.

Appendix B4: Work-Family Role Prioritization (Lobel & Clair, 1992)

Response options: Likert scale from 1 to 5 where 1 = "I am primarily a family person", 2 = "I am a family and career person but lean a bit more towards family", 3 = "I am a career and family person", 4 = "I am a family and career person but lean a bit more towards work", and 5 = "I am primarily a work person".

Scale instructions and item:

1. Select one response that best describes you and your day-to-day priorities.

Scale calculation: Single item, no calculations. Higher values indicate prioritizing work over family.

Appendix C: IRB Approval Letter

USF
UNIVERSITY OF
SOUTH FLORIDA

RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX(813)974-7091

11/20/2018

Victor Mancini

RE: **Exempt Certification**
IRB#: Pro00038154
Title: Job Crafting and Work-Family Balance Across Family Stages

Dear Mr. Mancini:

On 11/19/2018, the Institutional Review Board (IRB) determined that your research meets criteria for exemption from the federal regulations as outlined by 45CFR46.101(b):

(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF HRPP policies and procedures.

Please note, as per USF HRPP Policy, once the Exempt determination is made, the application is closed in ARC. Any proposed or anticipated changes to the study design that was previously declared exempt from IRB review must be submitted to the IRB as a new study prior to initiation of the change. However, administrative changes, including changes in research personnel, do not warrant an amendment or new application.

Given the determination of exemption, this application is being closed in ARC. This does not limit your ability to conduct your research project.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

Melissa Sloan, PhD, Vice Chairperson
USF Institutional Review Board

Appendix D1: Condensed Family Stage Distribution in Cross-sectional and Longitudinal Analysis Samples

	Cross-sectional Analysis Sample		Longitudinal Analysis Sample	
Family Stage	N		N	%
Establishment	217	15.4	59	17.6
Young Child	294	20.8	63	18.8
Older Child	381	27.0	93	27.8
Empty Nest	519	36.8	120	35.8
Total	1411		335	

Appendix D2: Group Comparison of Condensed Family Stages by Rate of Participation in Waves of Data Collection

	Participated in Single Wave		Participated in Multiple Waves[a]		
	N	%	N	%	χ^2-value
Family Stage	888	--	523	--	1.57
Establishment	134	15.1	83	15.9	
Younger Child	194	21.8	100	19.1	
Older Child	234	26.9	142	27.2	
Empty Nest	321	36.1	197	37.9	

Note. ** $p < .01$. * $p < .05$. [a]Participants were classified into the multiple wave participation group if they initiated the online survey by provided informed consent in more than one wave of data collection.

Appendix D3: Group Comparison of Condensed Family Stages Between Participants of Multiple Waves of Data Collection with Only Valid T1 Responses and Participants with Valid Time 1 and Time 2 Responses

	Valid Time 1 Response Only		Valid Time 1 and Time 2 Responses		
	N	%	N	%	χ^2-value
Family Stage	165	--	326	--	1.29
Establishment	23	13.9	58	17.8	
Younger Child	33	20.0	62	19.0	
Older Child	45	27.3	89	27.3	
Empty Nest	64	38.8	117	35.9	

Note. * $p < .05$. [a]Participants classified in the empty nest stage were excluded from number and age of child mean comparisons because its members have no children.

Appendix D4: Means and Standard Deviations of Study Variables by Condensed Family Stages

Dependent Variable:	Job Crafting		Task Crafting		Cognitive Crafting		Relational Crafting		Work-Family Balance		Role Prioritization	
Family Stage	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Time 1												
Establishment	3.29	.64	3.51	.81	3.32	.92	3.05	.89	3.00	.98	3.48	1.01
Younger Child	3.32	.67	3.54	.83	3.40	.88	3.00	.93	3.02	.96	2.71	.76
Older Child	3.27	.70	3.49	.84	3.42	.94	2.91	.91	3.17	.95	2.68	.86
Empty Nest	3.38	.70	3.57	.84	3.56	.95	3.01	.92	3.57	.95	3.12	.97
Time 2												
Establishment	3.24	.72	3.39	.87	3.39	.98	2.95	.91	3.00	.97	3.69	.91
Younger Child	3.23	.70	3.54	.82	3.22	.94	2.94	.96	2.86	.92	2.76	.84
Older Child	3.23	.67	3.49	.83	3.41	.90	2.79	.96	3.07	1.03	2.83	.85
Empty Nest	3.27	.66	3.51	.84	3.47	.93	2.82	.92	3.53	1.05	2.98	.96

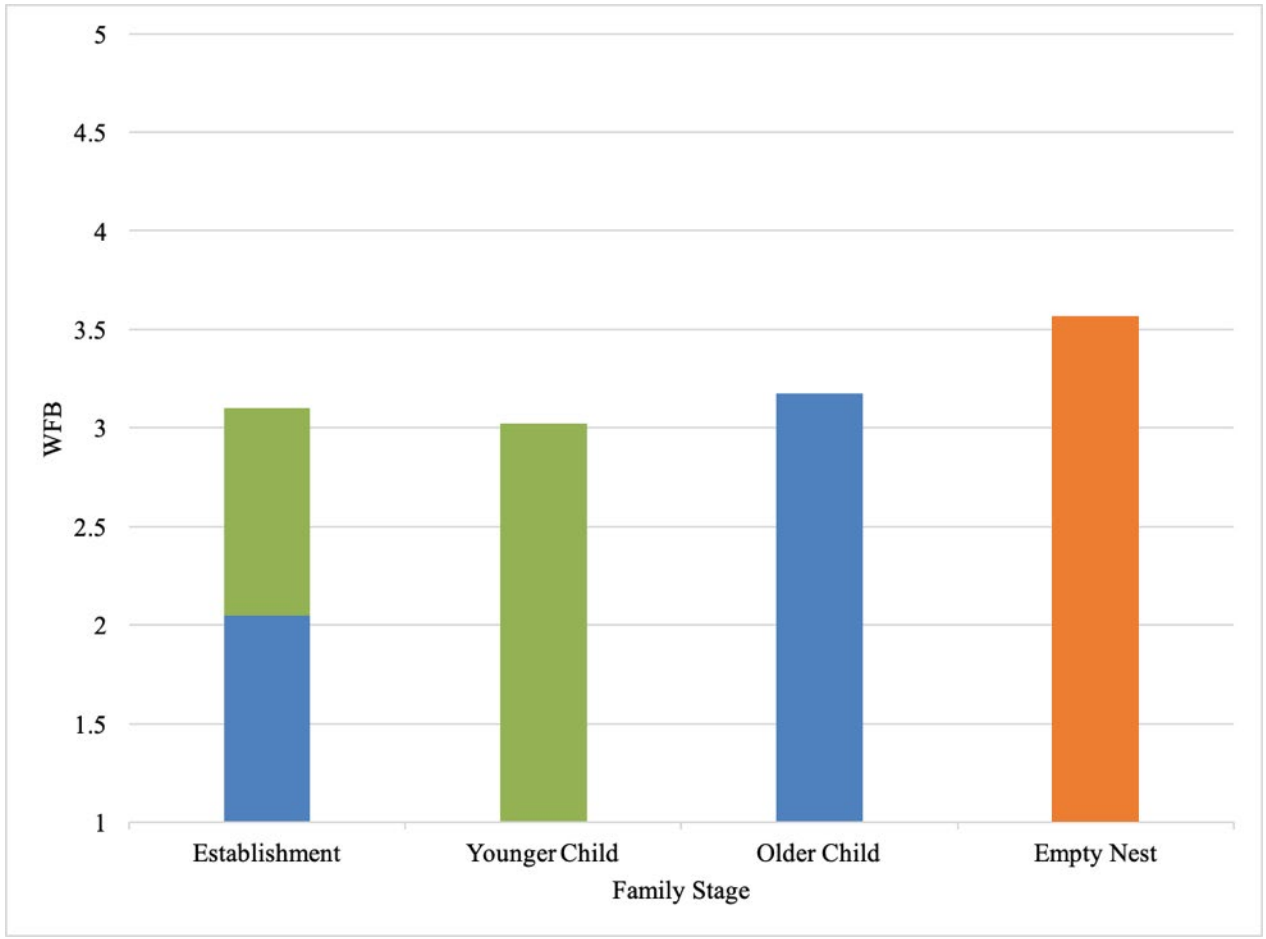
Note. M = mean. SD = standard deviation.

Appendix D5: Work-Family Balance Time 1 by Condensed Family Stage

	Work-Family Balance		
Family Stage	N	*M*	*SD*
Establishment	217	3.00[a]	.98
Younger Child	294	3.02[a]	.99
Older Child	381	3.17[b]	.90
Empty Nest	519	3.57[c]	.94

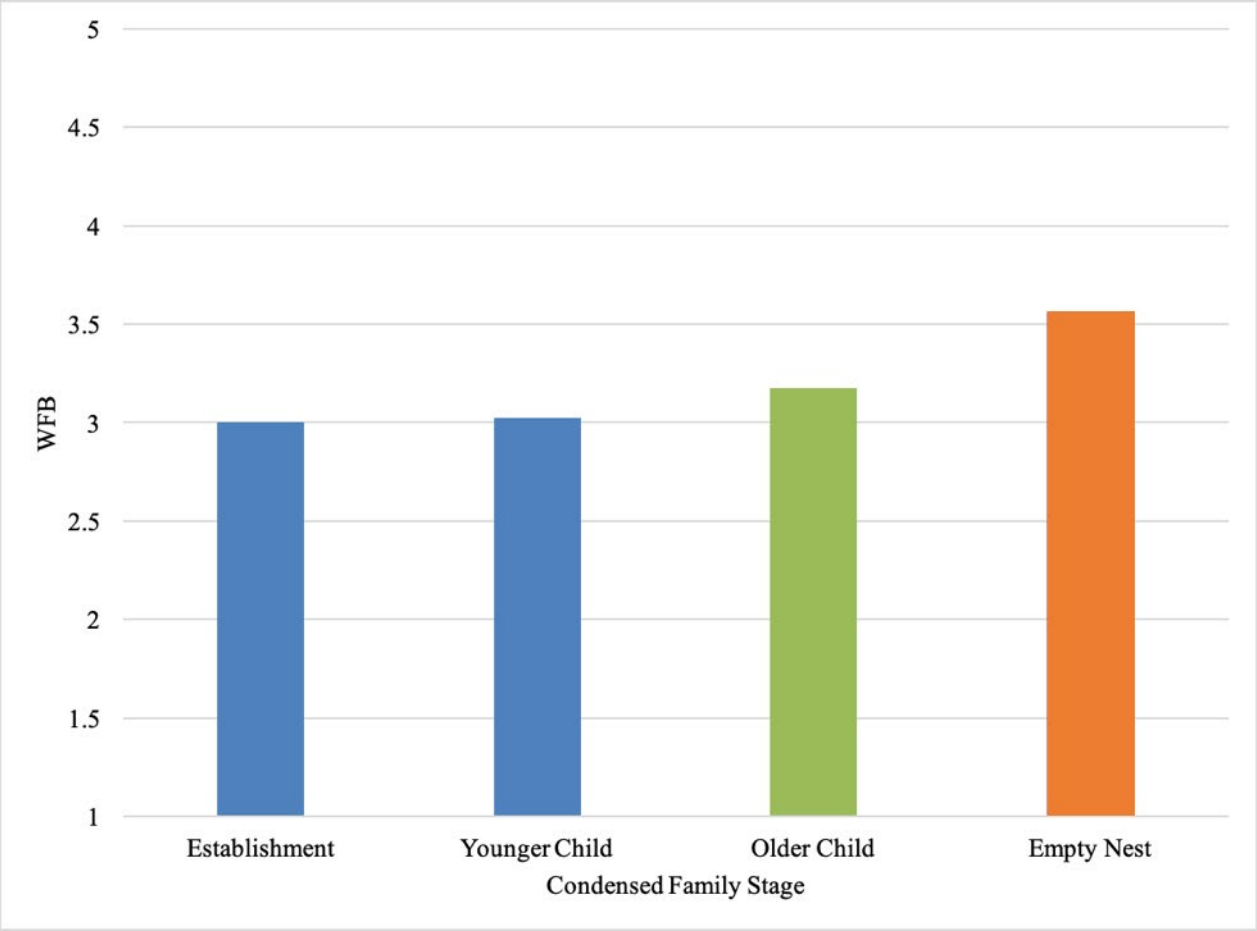
Note. M = mean. SD = standard deviation. Means with shared superscript do not differ significantly.

Appendix D6: Work-Family Balance by Condensed Family Stage at Time



Note. WFB = work-family balance. Group means that share a fill color do not differ significantly from one another.

Appendix D7: Work-Family Balance by Condensed Family Stage at Time 1 with Establishment Stage Upper Age Limit of 35 Years Old



Note. WFB = work-family balance. Group means that share a fill color do not differ significantly from one another.

Appendix D8: Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Condensed Family Stage Groups Using an Establishment Stage Upper Limit of 35 Years Old

					Partial Invariance	
Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Scalar	Strict
ΔWFB						
χ^2	290.161	308.790	331.694	383.288	--	--
df	183	195	210	225	--	--
AIC	6705.398	6700.027	6692.931	6714.524	--	--
BIC	6991.355	6941.419	6878.618	6844.505	--	--
CFI	.088	.088	.087	.096	--	--
RMSEA	.964	.962	.959	.947	--	--
Δχ2	--	18.629	22.904	51.594	--	--
Δdf	--	12	15	15	--	--
Pr(>χ^2)	--	.098	.086	.000**	--	--
Δ*CFI*	--	.000	-.001	.009	--	--
Δ*RMSEA*	--	-.002	-.003	-.012	--	--
ΔJCT						
χ^2	100.254	111.134	119.261	132.387	--	--
df	100	109	121	133	--	--
AIC	6034.579	6027.459	6011.585	6000.712	--	--
BIC	6316.823	6276.279	6215.841	6160.402	--	--
CFI	1.000	.998	1.000	1.000	--	--
RMSEA	.006	.016	.000	.000	--	--
Δχ2	--	10.880	8.127	13.126	--	--
Δdf	--	9	12	12	--	--
Pr(>χ^2)	--	.284	.775	.360	--	--
Δ*CFI*	--	-.002	.002	.000	--	--
Δ*RMSEA*	--	.010	-.016	.000	--	--

Note. *p <.05. **p <.01. WFB = work-family balance. JCC = cognitive crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected.

Appendix D8 Results of Multi-Group Measurement Invariance Tests of Change in Job Crafting and Change in Work-Family Balance Variables Across Condensed Family Stage Groups Using an Establishment Stage Upper Limit of 35 Years Old (continued).

					Partial Invariance	
Construct / Invariance Tests	Configural	Metric	Scalar	Strict	Scalar	Strict
ΔJCC						
χ^2	144.932	156.179	174.993	189.636	--	--
df	100	109	121	133	--	--
AIC	6583.241	6576.488	6571.302	6561.945	--	--
BIC	6865.485	6825.308	6775.557	6721.636	--	--
CFI	.077	.076	.077	.075	--	--
RMSEA	.956	.954	.947	.945	--	--
Δχ2	--	11.247	18.814	14.643	--	--
Δdf	--	9	12	12	--	--
Pr(>χ^2)	--	.259	.093	.262	--	--
Δ*CFI*	--	-.001	.001	-.002	--	--
Δ*RMSEA*	--	-.002	-.007	-.002	--	--
ΔJCR						
χ^2	139.307	143.450	165.171	185.295	159.329	179.166
df	100	109	121	133	118	130
AIC	6447.277	6433.420	6431.142	6427.265	6431.299	6427.136
BIC	6729.521	6682.240	6635.397	6586.956	6646.696	6597.968
CFI	.072	.065	.069	.072	.068	.071
RMSEA	.967	.971	.963	.956	.966	.959
Δχ2	--	4.143	21.721	20.124	5.842	6.129
Δdf	--	9	12	12	3	3
Pr(>χ^2)	--	.902	.041*	.065	.120	.106
Δ*CFI*	--	-.007	.004	.003	.001	.001
Δ*RMSEA*	--	.004	-.008	-.007	-.003	-.003

Note. *p <.05. **p <.01. WFB = work-family balance. JCR = relational crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]For ΔJCR partial measurement invariance was tested by allowing the intercept of JC item 11 to vary across groups.

Appendix D9: Comparisons of Change in Job Crafting on Change in Work-Family Balance Model Fit by Equality Constraints Across Condensed Family Stage Groups Stage Groups Using an Establishment Stage Upper Limit of 35 Years Old

	Dependent Variable: ΔWFB			
	Independent Variable: ΔJCT			
Fit Indices/ Models	Model 4	Model 5	Model 4[a]	Model 5[a]
χ^2	954.993	954.642	905.653	905.215
df	712	709	697	694
AIC	12686.171	12691.820	12666.831	12672.392
BIC	12849.575	12866.365	12885.941	12902.644
RMSEA	.067	.068	.063	.063
CFI	.942	.941	.950	.949
Δχ2	--	.351	--	.438
Δdf	--	3	--	3
Pr(>χ^2)	--	.950	--	.932
Δ*RMSEA*	--	-.001	--	.000
Δ*CFI*	--	.001	--	.001
Preferred Model				Model 4

Note. *p < .05. **p < .01. WFB = work-family balance. JCT = task crafting. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. Pr(>χ^2) = the probability that null hypothesis of a likelihood-ratio test based on changes in χ^2 should be rejected.
[a]Across Models 4 and 5, the residual variances of all WFB items at Time 1 and Time 2 were unconstrained across groups.

Appendix D9: Comparisons of Change in Job Crafting on Change in Work-Family Balance Model Fit by Equality Constraints Across Condensed Family Stage Groups Stage Groups Using an Establishment Stage Upper Limit of 35 Years Old (continued)

	Dependent Variable: ΔWFB			
	Independent Variable: ΔJCC			
Fit Indices/ Models	Model 4	Model 5	Model 4[a]	Model 5[a]
χ^2	1120.593	1114.971	1070.671	1064.894
df	712	709	697	694
AIC	13233.209	13233.587	13213.287	13213.510
BIC	13396.613	13408.132	13432.397	13443.761
RMSEA	.087	.087	.084	.084
CFI	.903	.903	.911	.912
Δχ2	--	5.622	--	5.777
Δdf	--	3	--	3
Pr(>χ^2)	--	.132	--	.123
Δ*RMSEA*	--	.000	--	.000
Δ*CFI*	--	.000	--	-.001
Preferred Model				Model 4

Note. *p < .05. **p < .01. WFB = work-family balance. JCC = cognitive crafting. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. Pr(>χ^2) = the probability that null hypothesis of a likelihood-ratio test based on changes in χ^2 should be rejected.
[a]Across Models 4 and 5, the residual variances of all WFB items at Time 1 and Time 2 were unconstrained across groups.

Appendix D9: Comparisons of Change in Job Crafting on Change in Work-Family Balance Model Fit by Equality Constraints Across Condensed Family Stage Groups Stage Groups Using an Establishment Stage Upper Limit of 35 Years Old (continued)

	Dependent Variable: ΔWFB			
	Independent Variable: ΔJCR			
Fit Indices/ Models	Model 4	Model 5	Model 4[a]	Model 5[a]
χ^2	1089.953	1082.489	1036.368	1028.895
df	712	709	694	691
AIC	13097.091	13095.627	13079.506	13078.033
BIC	13260.495	13270.172	13309.757	13319.426
RMSEA	.084	.083	.081	.080
CFI	.913	.914	.921	.922
Δχ2	--	7.464	--	7.473
Δdf	--	3	--	3
Pr(>χ^2)	--	.058	--	.058
Δ*RMSEA*	--	.001	--	.001
Δ*CFI*	--	-.001	--	-.001
Preferred Model				Model 4

Note. **p < .01. *p < .05. WFB = work-family balance. JCR = relational crafting. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. Pr(>χ^2) = the probability that null hypothesis of a likelihood-ratio test based on changes in χ^2 should be rejected.
[a]Across Models 4 and 5, the intercept of job crafting item 11 and the residual variances of all WFB items at Time 1 and Time 2 were unconstrained across groups.

Appendix D10: Results of Multi-Group Model Fits and Comparisons Conducted Under Assumption of Partial Measurement Invariance

	Dependent Variable: ΔWFB							
	Independent Variable: ΔJC – Partial[a]							
Fit Indices/ Models	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	4529.390	4531.438	2740.197	2743.910	--	--	--	--
df	2416	2419	1163	1164	--	--	--	--
AIC	29104.567	29100.614	28997.698	28999.411	--	--	--	--
BIC	29485.980	29470.585	29359.756	29357.658	--	--	--	--
RMSEA	.102	.102	.090	.090	--	--	--	--
CFI	.733	.733	.785	.784	--	--	--	--
Model Comparisons	Model 4 v. Model 5		Model 6 v. Model 7		Model 8 v. Model 11	Model 8 v. Model 9		Model 8 v. Model 10
Δχ 2	2.048		3.713		--	--		--
Δdf	3		1		--	--		--
Pr(>χ 2)	.563		.054		--	--		--
Δ*RMSEA*	.000		.000		--	--		--
Δ*CFI*	.000		-.001		--	--		--
Preferred Model	Model 5		Model 7		--			

Note. *p <.05. **p <.01. WFB = work-family balance. JC = job crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]In Models 4 and 5, the intercepts of WFB item 1 and JC item 6, and the residual variances of all WFB items were free to vary across groups. In Models 6 and 7, the intercept of JC item 12 and residual variances of all WFB and JC items were free to vary across groups.

Appendix D10: Results of Multi-Group Model Fits and Comparisons Conducted Under Assumption of Partial Measurement Invariance (continued)

	Dependent Variable: ΔWFB							
	Independent Variable: ΔJCT – Partial[a]							
Fit Indices/ Models	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	852.452	852.920	443.488	443.986	2141.532	489.497	2141.594	490.174
df	691	694	324	325	1468	333	1469	334
AIC	13976.902	13971.370	13894.346	13892.844	13922.872	13922.356	13920.934	13921.032
BIC	14224.820	14207.846	14100.148	14094.835	14090.562	14093.857	14084.813	14088.723
RMSEA	.053	.052	.047	.047	.105	.053	.105	.053
CFI	.964	.964	.973	.973	.861	.965	.862	.965
Model Comparisons	Model 4 v. Model 5		Model 6 v. Model 7		Model 8 v. Model 11	Model 8 v. Model 9		Model 8 v. Model 10
Δχ 2	.468		.498		4.912	4.441		4.285
Δdf	3		1		7	6		4
Pr(>χ 2)	.926		.480		.671	.617		.369
Δ*RMSEA*	-.001		.000		.000	.000		.000
Δ*CFI*	.000		.000		.001	.000		.000
Preferred Model	Model 5		Model 7			Model 11		

Note. **p* <.05. ***p* <.01. WFB = work-family balance. JCT = task crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]In Models 4 and 5, the intercepts of WFB item 1 and the residual variances of all WFB items were free to vary across groups. In Models 6 through 11, the residual variances of all WFB and JC items were free to vary across groups.

Appendix D10: Results of Multi-Group Model Fits and Comparisons Conducted Under Assumption of Partial Measurement Invariance (continued)

	Dependent Variable: ΔWFB							
	Independent Variable: ΔJCC – Partial							
Fit Indices/ Models	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	959.705	964.426	--	--	2072.288	--	2085.633	2091.776
df	691	694	--	--	1384	--	1388	1391
AIC	14540.682	14539.402	--	--	14468.576	--	14473.921	14474.064
BIC	14788.600	14775.878	--	--	14956.402	--	14946.503	14935.212
RMSEA	.068	.068	--	--	.109	--	.110	.110
CFI	.940	.939	. --	. --	.858	. --	.856	.856
Model Comparisons	Model 4 v. Model 5		Model 6 v. Model 7		Model 8 v. Model 11		Model 8 v. Model 9	Model 8 v. Model 10
Δχ 2	4.721		--		19.488		--	6.143
Δdf	3		--		7		--	3
Pr(>χ 2)	.193		--		.007**		--	.105
Δ*RMSEA*	.000		--		.001		--	.000
Δ*CFI*	-.001		--		-.002		--	.000
Preferred Model	Model 5		. --		Model 8			

Note. *p <.05. **p <.01. WFB = work-family balance. JCC = cognitive crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]In Models 4 and 5, the intercepts of WFB item 1 and the residual variances of all WFB items were free to vary across groups. In Models 6 and 7, the residual variances of all WFB items were free to vary across groups. In Models 8 through 11, the intercepts of JC items 5 and 6, and the residual variances of all JC and WFB items were free to vary across groups.

Appendix D10: Results of Multi-Group Model Fits and Comparisons Conducted Under Assumption of Partial Measurement Invariance (continued)

	Dependent Variable: ΔWFB							
	Independent Variable: ΔJCR – Partial							
Fit Indices/ Models	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
χ^2	962.207	969.232	2091.776	508.458	1948.707	1959.068	1957.909	1963.739
df	688	691	1391	328	1384	1390	1388	1391
AIC	14344.246	14345.271	14474.064	14319.451	14306.579	14304.94	14307.781	14307.611
BIC	14603.607	14593.189	14935.212	14510.008	14794.405	14769.899	14780.362	14768.759
RMSEA	.069	.069	.110	.057	.099	.099	.099	.099
CFI	.941	.941	.856	.961	.886	.885	.885	.884
Model Comparisons	Model 4 v. Model 5		Model 6 v. Model 7		Model 8 v. Model 11	Model 8 v. Model 9		Model 8 v. Model 10
$\Delta\chi$ 2	7.025		3.858		15.032	10.361		9.202
Δdf	3		1		7	6		4
Pr(>χ 2)	.071		.050*		.036*	.110		.056
Δ*RMSEA*	.000		.001		.000	.000		.000
Δ*CFI*	.000		-.001		-.002	-.001		-.001
Preferred Model	Model 5		Model 6			Model 8		

Note. *p <.05. **p <.01. WFB = work-family balance. JCR = relational crafting. Deltas represent changes in variables from Time 1 to Time 2 and changes in fit statistics compared to previous models'. χ^2 = chi-square value. df = degrees of freedom. *AIC* = Akaike information criteria. *BIC* = Bayesian information criteria. *CFI* = comparative fit index. *RMSEA* = root mean square error of approximation. Pr(>χ^2) = probability that null hypothesis of the likelihood ratio test comparing model fit should be rejected. [a]In Models 4 and 5, the intercepts of WFB item 1 and JC item 12, and the residual variances of all WFB items were free to vary across groups. In Models 6 and 7, the residual variances of all WFB items were free to vary across groups. In Models 8 through 11, the intercepts of JC items 9 and 12, and the residual variances of all JC and WFB items were free to vary across groups.

Appendix E: Description of Study Models

Models	Variables Included	Estimation Details
Model 0	ΔJC	Constrained to zero
Model 1	ΔJC	Freely estimated
Model 0_{RP}	ΔJC	Freely estimated
	RP	Constrained to zero
Model 2	ΔJC	Freely estimated
	RP	Freely estimated
Model 3	ΔJC	Freely estimated
	RP	Freely estimated
	ΔJC*RP	Freely estimated
Model 4	ΔJC	Freely estimated across family stage groups
Model 5	ΔJC	Constrained to be equal across family stage groups
Model 6	ΔJC	Constrained to be equal across gender groups
Model 7	ΔJC	Freely estimated across gender groups
Model 8	ΔJC	Freely estimated by family stage and gender groups
Model 9	ΔJC	Freely estimated across gender groups and constrained to be equal across family stage groups
Model 10	ΔJC	Freely estimated across family stage groups and constrained to be equal across gender groups
Model 11	ΔJC	Constrained to be equal across family stage groups and gender groups
Model $0_{\Delta RP}$	ΔJC	Freely estimated
	ΔRP	Constrained to zero
Model 12	ΔJC	Freely estimated
	ΔRP	Freely estimated
Model 13	ΔJC	Freely estimated
	ΔRP	Freely estimated
	ΔJC*ΔRP	Freely estimated

Note. JC = job crafting. RP = role prioritization. Deltas represent changes in variables from Time 1 to Time 2. For all models the dependent variable was change in work-family balance from Time 1 to Time 2.