THE ORGANIZATIONAL RESPONSE TO THE WORK-FAMILY NEEDS OF THE MODERN WORKFORCE

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ABSTRACT

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As the technological landscape and labor market demographics change, organizations are finding themselves faced with a need to act upon employees’ increasing demand to better manage their work and family roles. Over the past thirty years, a vast repository of research has sought to identify what organizations do to meet this challenge and how formal and informal organizational policies and practices affect employees as well as the organizations that offer them. Despite the rise in popularity of work-family policies and practices as a research topic across academic disciplines, the focus has been on how organizational practices affect individuals. However, this research does not provide a sufficiently nuanced account of the reasoning behind and implementation of these practices and policies. In particular, researchers lack theory and schematic frameworks at the organizational level to understand how a particular work-family policy or practice is chosen or implemented, and how it fits within the broader goals of the organization.

In light of this, this dissertation provides two primary contributions to the organizational-work family literature. First, it includes two empirical studies which focus on modern organizational work-family issues that are relatively poorly understood in current research. One study demonstrates the importance of organizational expectations surrounding the use of informational and communicative technology after normal work hours. This study finds that organizations pressuring employees to use information and communicative technology to work
outside of normal work hours risk employee emotional exhaustion, but that individual differences in the preferences for work-family role management play a part in determining the severity of this risk. The second study discusses the importance of public policy in contextualizing organizational work-family practices by identifying Germany as a country with an under-supplied public daycare system. The study shows that in an environment where childcare is in high demand, organizations are able to step in with childcare practices that mutually benefit employees and their organizations, and that those organizations with high levels of female turnover are most likely to adopt these practices.

Second, I use these two studies alongside other empirical and theoretical evidence to build a new theoretical framework for the adoption and implementation of work-family policies and practices. Previous frameworks have not been updated to include the wealth of research around organizational policies and practices and their relationship with employee and organizational outcomes, and do not allow for variation in the adoption and implementation of practices and policies. In particular, existing frameworks assume a generalized organizational response and cannot explain the complex systems of work-family policies and practice observed in actual organizations. Building an integrated organizational work-family response framework provides some much-needed organization-level theory in the work-family domain. I discuss the weaknesses of existing frameworks as well as the benefits of an integrated framework for research and practice.
DEDICATION

I dedicate this work to my family with deep gratitude for their unwavering and unconditional support and encouragement. I could not have succeeded without them.
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1 Work, Family, and the Organization

1.1 Introduction

Individuals in modern society assume many roles (V. Allen & van de Vliert, 1984; Katz & Kahn, 1978; Stryker, 1980). Arguably most prominent of these are the work role and the family role. Traditionally, these roles were largely split along gender lines with men focusing on working and women focusing on taking care of family needs. But in the modern world, these gender roles have substantially eroded (van der Lippe, 2010). Other family and work role structures are becoming increasingly common as women contribute more to household incomes (Raley, Mattingly, & Bianchi, 2006). For example, in 2008, 80% of married employees reported being a member of a dual earner couple as opposed to 66% in 1977 (Galinsky, Aumann, & Bond, 2009). Female labor force participation rates have steadily climbed from 42% in 1950 to 57% in 2007 while male labor force participation rates have fallen from 82% to 66% in the same period (Galinsky et al., 2009). Similarly, men now report increased performance of family role tasks; for example, the ratio of women's to men's time spent on housework has dropped from 6.1 in 1965 to 1.6 in 2010 (Bianchi, Sayer, Milkie, & Robinson, 2012).

This still ongoing fundamental shift in work and family roles is not without consequences. Time and energy are finite resources, but each role requires both. Thus, these roles are often in competition with one another for effort and attention. Many people struggle to be successful in both the work and family domains simultaneously. Work role demands can interfere with the fulfillment of family role demands, and family role demands can interfere with the fulfillment of work role demands, creating work-family and family-work role conflict, respectively (Greenhaus & Beutell, 1985; Kossek, Pichler, Bodner, & Hammer, 2011). Similarly, moods and behaviors from one domain can spill over into the other (Z. Chen, Powell, &
Greenhaus, 2009; Ilies et al., 2007). As a result, younger labor market participants are reporting work-family role management as a key concern for their future careers (Burke, 2004; Cleveland & McCarthy, 2013) and work-family matters are becoming more important in consideration of career development (Greenhaus & Kossek, 2014). In this regard, workplaces that adopt official written policies and less formal practices that help employees manage their work and family roles are more desirable to today’s job applicants (Carless & Wintle, 2007; Hill et al., 2008; Rau & Hyland, 2002; Rothbard, Phillips, & Dumas, 2005; SHRM, 2010).

Organizations are not blind to these broad societal changes, and many have chosen to address the work-family needs of their employees through their system of human resource management policies and practices. In the United States, organizations are the key source of work-family benefits for employees due to a lack of public policy surrounding work-family role management relative to other countries (Galinsky, Sakai, Eby, Bond, & Wigton, 2010; Piszczek & Berg, forthcoming). Still, as will be discussed in Chapter 3, public policy in other countries does not always provide all the work-family benefits employees need or want. The organization thus plays a major role in employees’ ability to manage work and family roles and its actions can have a substantial and often beneficial impact on employees’ lives (Butts, Casper, & Yang, 2013; Keeney, 2012; Kelly et al., 2008; Kossek, Hammer, Kelly, & Moen, 2014; Kossek, Pichler, et al., 2011; M. D. Lee, Kossek, Hall, & Litrico, 2011).

Research on the work-family interface has gained substantial popularity over the past several decades, coinciding with shifting gender roles. Work by Kanter (1977), Hall and Richter (1988) and Orthner and Pittman (1986), discussed below, helped promote dialogue of what organizations could contribute to employees’ management of work-family roles. As part of this research, in the early and mid 1990s researchers developed several organization-level
frameworks from different disciplinary perspectives meant to explain how organizations respond to employees’ need to manage multiple roles. These frameworks sought to explain, at a general level, whether and why organizations adopted work-family policies and practices, despite relatively little being known about such policies and practices at the time (Goodstein, 1994; Kirchmeyer, 1995). Because these frameworks were created at the onset of the explosion of work-family research, and subsequently do not speak with much detail to the various types of work-family practices and their effects on employee role management, they have largely fallen out of favor with modern research. Instead, focus has largely been on the individual employee level. Individual level work-family research explains how employees use and experience specific work-family practices and manage their work-family role boundaries, as well as how the work and family roles influence one another (e.g., T. D. Allen, Cho, & Meier, 2014; Casper, De Hauw, & Wayne, 2013; Chakrabarti, 2011; Kossek & Lautsch, 2012; Kossek, Ruderman, Braddy, & Hannum, 2012; Kreiner, Hollensbe, & Sheep, 2009; Ollier-Malaterre, Rothbard, & Berg, 2013; Valcour, Ollier-Malaterre, Matz-Costa, Pitt-Catsouphes, & Brown, 2011).

Even though we now know much more about how work-family policies and practices affect employees and organizations, organization-level frameworks still have something to offer modern research. Through focusing on the individual employee and specific work-family policies, the literature has lost much of the context that explains why a practice or policy is adopted, how it is implemented, how it affects employees, and whether it should be deemed successful or unsuccessful. In other words, these frameworks help answer the question of why, with such a multitude of options, an organization ends up with its own custom array of work-family practices and policies. They help answer the question of why the same policy can have vastly different effects in different organizations, or why it might be more valuable to one
organization than another. They help address the question of why policies and practices might be unevenly applied within an organization and what might come as a result for that organization and its employees. Though individual-focused research often acknowledges the importance of organizational context by including variables such as work-family culture or perceived organization work-family support (Kossek, Lewis, & Hammer, 2010; Odle-Dusseau, Britt, & Greene-Shortridge, 2012; Powell, Francesco, & Ling, 2009; Wayne, Casper, Matthews, & Allen, 2013), work-family research lacks an organization-level framework that can explain the variation in adoption and implementation of work-family policies and practices observed in real organizations.

An updated organization-level framework has a number of potential benefits. I develop such a framework and discuss these benefits in detail in Chapter 4. This framework helps contextualize existing and future research in a broader institutional environment, explains how work-family policies and practices fit better or worse with different organizational needs, clarifies theoretical links from organization to individual, environment, and practice, and accounts for variation in the way policies and practices are implemented within and between organizations. More generally, a new organization-level framework is needed to account for the complex patterns of work-family policies and practices offered in and across organizations. Such a framework also raises a number of potential areas for future research about cross-level relationships between organizations and individuals, how work-family policies are chosen and implemented, and what organizational contingencies are important for work-family policy effectiveness.

Thus, through this dissertation, I argue for a return to a higher-level, organizational perspective on work-family policies and practices to supplement the wealth of more micro- and
meso-level literatures. In this first chapter, I will discuss and critique three organization-level work-family response frameworks from the mid 1990s (institutional pressure, rational choice, and agency). I address why they have received such little attention, and what we can yet take from them to build additional theoretical foundations for future work-family research. I also discuss why organization-level theorization is important in work-family research and how it can help explain complex patterns of organizational work-family policies and practices within and across organizations.

Chapters 2 and 3 consist of empirical studies typical of the modern micro and macro work-family literatures, respectively. Aside from their more narrow contributions, these two studies demonstrate the need for a more comprehensive framework of how and why organizations develop and implement a particular system of work-family practices and policies. In response to this need, Chapter 4 introduces an integrated organizational work-family framework. In discussing this new framework I highlight its theoretical, empirical, and practical benefits and how it might be used in future research. I also discuss how this perspective relates to current research and how this can be leveraged into stronger, better contextualized research. I begin with an in-depth description of the three organizational work-family response frameworks and a brief history of the literature that led to their development.

1.2 Three Organizational Work-Family Response Frameworks

1.2.1 Development

The popularity of work-family studies followed closely the beginning of the shift away from traditional gender roles in modern society. Kanter (1977) argued that organizations take different forms in the way they treat employees’ work and family roles. She deconstructed the “myth of separate worlds,” that work and family domains were inherently disparate and thus one
need not interfere with the other. Kanter argued that organizations typically took two response forms, based on whether or not they acknowledged the link between work and family domains. This relatively early work was designed to make an ethical, humanitarian appeal to organizations consistent with increasing prevalence of women in the workplace and dual earner couples in the labor market. It did not demonstrate the potential economic benefit of work-family supportive policies and practices to organizations (Orthner & Pittman, 1986; Voydanoff, 1984). Because of this humanitarian grounding, most organizational work-family research during this period was focused on the impact of work on family-domain outcomes such as marital quality and family stress (e.g., Berk & Beck, 1979; R. Clark, Nye, & Gecas, 1978; Olson et al., 1983; Orthner & Axelson, 1980).

In the early 1980s, research began to test whether organizational practices and policies that acknowledge and support an employee’s non-work life could also benefit organizations. For example, Orthner (1980) demonstrated that spousal support was related to career commitment in men in the military. Following this, Orthner and Pittman (1986) called for more empirical research linking work-family supportive practices and outcomes desirable to employers while empirically demonstrating that organizational support for the family was linked to higher levels of organizational commitment. Once empirical groundwork had convincingly demonstrated the existence and importance of cross-domain relationships, researchers sought to understand what organizations were doing—and what they could be doing—to allow the work and family domains to maximally benefit one another. Hall and Richter (1988), building from Kanter’s work, argued that while some organizations are unwilling to address work-family issues, others had the desire but lacked knowledge on what types of practices would be mutually beneficial for them and their employees. These authors identified a number of employee work-family needs
and ways in which organizations might be able to address them, prompting more research on organizational work-family policies and practices. This led to the development of three theoretical frameworks that sought to explain when and how organizations respond to the fact that employees have multiple life roles.

1.2.2 **The Institutional Pressure Framework**

One approach to research on the adoption of organizational work-family policies and practices is to treat the need to adopt work-family policies and practices as an institutional pressure. Literature using this approach applies institutional theory to the work-family interface at the organization level. Oliver (1991) discussed in depth the role of institutional pressure in contributing to an organization-level response to that pressure. This research serves as a baseline for studies of institutional pressure in the work-family domain. For example, Milliken (1990) argued that the key drivers of an organization’s response to institutional pressures are the organization’s external visibility and the salience of the potential consequences of work-family problems for employee performance. However, Goodstein (1994) integrated Oliver’s (1991) theoretical framework of strategic choice in responsiveness to institutional pressures into the work-family domain, describing what high and low work-family institutional pressure might look like.

Goodstein thus provides an in-depth discussion of what comprises work-family institutional pressure using five predictive factors described by Oliver (1991): cause, constituents, content, control, and context. “Cause” pressure includes the belief that organizations should play a more socially active role in society by helping their employees; the root of this pressure is in the organization’s need for social legitimacy, which would be impeded if it did not conform to this pressure if present. Goodstein (1994) argued that larger organizations
would experience this pressure more than smaller organizations. “Constituent” pressure stems from the demographics of the labor force. A greater proportion of the labor market in need of or demanding work-family policies and practices (for example, a greater proportion of women of childbearing age) places greater pressure on organizations to adopt them. “Content” pressure comes from the consistency and congruence of work-family policies with other organizational goals and policies. For example, Goodstein (1994) argued that public sector organizations would be more likely to adopt work-family practices because they are more consistent with public policy promoting work-family policies and the philosophy of government service. “Control” pressure comes from legal regulations mandating particular work-family policies (such as the 1993 Family Medical Leave Act in the United States) and voluntary diffusion (i.e., pressure to adopt practices that are widely adopted by other organizations). Finally, “context” pressure is highest when organizations are highly interconnected. Goodstein (1994) argued that professional and other business networking organizations in an institutional environment create pathways for normative rules to promulgate across organizations.

Goodstein’s (1994) work also shows that organizations may take one of five responses to the institutional pressure to adopt work-family systems described above depending on the strength of the pressure and the perceived effect their adoption may have on technical outcomes like company performance. These responses are presented in Table 1.1. Organizations may acquiesce to the pressure and adopt work-family practices when the pressure to adopt is high and the company may expect benefits from their adoption. Acquiescence is full conformity to institutional pressures. When pressure is high but expected outcomes are negative, organizations may compromise in their response or avoid the pressure completely if such avoidance carries little risk. Compromise is partially complying with institutional demands while avoidance is
characterized by concealed non-conformity or token symbolic policies. When pressure to adopt is low but there may be benefits to adoption, organizations may use manipulation to aggressively adopt policy and exert power over the weak institutional context and gain legitimacy. Manipulation is an active attempt to change or dominate institutional pressures to the organization’s advantage. Finally, when pressure is low and undesirable outcomes from adoption are expected, organizations may actively reject the notion of adoption in a defiance response. Defiance is an active rejection of institutional norms or expectations.

Table 1.1. Goodstein’s (1994) framework for strategic responses to institutional pressures

<table>
<thead>
<tr>
<th>High strength of institutional pressure</th>
<th>Positive perceived effects of responsiveness on technical outcomes</th>
<th>Negative perceived effects of responsiveness on technical outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquiescence</td>
<td>Compromise/Avoidance</td>
<td></td>
</tr>
<tr>
<td>Low strength of institutional pressure</td>
<td>Manipulation</td>
<td>Defiance</td>
</tr>
</tbody>
</table>

Later empirical research provides some support for this framework, showing that industry norms and expected impact on performance by executives were important contributors to the adoption of work-family policies and practices (Milliken, Martins, & Morgan, 1998). Similarly, organizational size and workforce demographics were found to be consistent predictors of strategic response consistent with hypotheses grounded in an institutional pressure perspective (Bardoel, Tharenou, & Moss, 1999; Ingram & Simons, 1995). This framework was also applied to organizational eldercare provisions (Goodstein, 1995). Overall, though, the institutional pressure perspective has not received much empirical attention.

1.2.3 The Rational Choice Perspective

Human resource management and economics literatures also generated explanations as to why organizations would adopt work-family policies and practices. In these literatures, the
adoption of work-family practices can be considered a rational choice for efficiency and will be adopted when their benefits exceed their costs (Glass & Estes, 1997; Poelmans & Sahibzada, 2004; Seyler, Monroe, & Garand, 1995). The notion of efficiency is somewhat captured in the institutional pressure perspective, as Goodstein’s (1994) model includes the organization’s expected effect of work-family policy on technical outcomes and Oliver (1991) discusses efficiency as a component of the decision to respond to institutional pressure. However, this literature takes a more nuanced perspective. While the institutional pressure literature simply asks whether an organization expects work-family practices to help or hurt their bottom line, the rational choice perspective seeks to better understand when and why an organization might expect these outcomes. This perspective is most consistent with current strategic human resource management literature (e.g., Huselid, 1995).

Osterman (1995) described three potential reasons for adopting work-family practices based on human resource management concerns. Organizations might adopt work-family policies in response to workforce problems like absenteeism, turnover, or labor market pressure; as part of a well-developed internal labor market; or as part of a high-commitment work system designed to increase employee organizational commitment. This literature also identifies unions and organizational size as drivers of work-family policy adoption not as institutional pressures but rather as strategic decision points for organizations (Glass & Fujimoto, 1995; Seyler et al., 1995). The ideas of the rational choice perspective, despite its lack of a formal framework like that of the institutional pressure perspective, are still present in current research though not generally acknowledged as such (e.g., B. Lee & DeVoe, 2012).
1.2.4 The Agency Perspective

Building on the idea that organizations have an active role in determining their work-family policies and practices, Kirchmeyer (1995) next formally defined the employer’s general work-family responses in line with those identified by Kanter (1977). The previous models posited by institutional pressure and rational choice perspectives were focused on the work-family response in the form of the mere presence of work-family practices without putting much emphasis on their content, their effects on employees, or the organizational philosophies they represent. Kirchmeyer’s conceptualization of the organizational work-family response thus provided a richer description of how organizations might differently address the work-family needs of employees, though it did not provide much information about the source of these differences.

The response types developed by Kirchmeyer are presented in Table 1.2. The “response” column contains Kirchmeyer’s three responses, as defined by her in the following column. The third column contains the organizational philosophy associated with each response in terms of how the organization views its role in helping employees manage work-family demands. The final column includes examples provided by Kirchmeyer of how organizations might enact each response through policy. Because this perspective personifies the organization as having a philosophical approach to the work-family interface (i.e., as paternalistic, mutualistic, or absent), I refer to it as an agency perspective.

According to the agency perspective, a "separation" response entails a lack of any kind of action to help employees manage work and family roles. Under this response, the organization concerns itself only with employees’ fulfillment of the work role and leaves employees to manage their family roles at their own discretion. Employees may be expected to keep their non-
work roles out of the workplace. It is worth noting that this type of response would still be required to meet minimums of federal and state regulations, such as compliance with the Fair Labor and Standards Act or Family-Medical Leave Act in the United States.

Table 1.2: Kirchmeyer’s (1995) work-family response archetypes

<table>
<thead>
<tr>
<th>Response</th>
<th>Definition</th>
<th>Characteristic</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Separation | No consideration of employees’ work-family needs. | Absent | • Organization prefers to keep work and nonwork as separate  
• Concerned mainly with employees fulfilling work role |
| Integration | Takes care of employees’ non-work needs | Paternalistic | • Provides onsite daycare  
• Offers family/marital counseling |
| Respect | Gives employees tools to manage non-work needs on their own | Mutualistic | • Flexible about work schedules  
• Avoids intruding on personal time  
• Supports alternative work arrangements |

With an "integration" response, the organization recognizes the impact work and family roles can have on one another and contributes in some sense to employees' management of non-work roles. This occurs most typically through work-family policies, practices, or other mechanisms which employees can use to help manage conflicting role demands such as onsite childcare centers or company-provided family counseling facilities. Kirchmeyer describes the motivation for the integration response as fitting a paternalistic model in which the employee benefits from the more powerful employer’s protection; in this sense, the organization is helping the employee to address his or her non-work needs more directly.

Finally, Kirchmeyer adds a third work-family response archetype based on the work of Hall and Richter (1988): “respect.” Under this response, employers acknowledge, value, and
support employees’ non-work roles and provide employees with the tools they need to handle the
demands of these roles themselves, primarily through flexibility. This is in contrast to
integration, in which the employer assumes direct responsibility for meeting employees’ non-
work role needs. While the integration response is considered paternalistic, the respect response
is considered mutualistic; the ultimate responsibility for managing roles falls on the employee.
Kirchmeyer (1995) found that this response type yielded the best outcomes for employees,
including organizational commitment and positive spillover from non-work to work role
domains. Following research found that respect was associated with higher organizational
commitment, separation was associated with lower organizational commitment, and integration
was unrelated to organizational commitment (A. Cohen, 1997). Though some concepts of this
framework are similar to those of boundary theory (Nippert-Eng, 1991), a popular theoretical
grounding of many individual-level work-family studies, this framework has not received much
empirical attention.

1.3 **Strengths and Weaknesses of the Organizational Work-Family Response Frameworks**

Each of the three frameworks remained largely unutilized in the modern work-family
literatures, though many of their core ideas are subtly present in studies with organizational
components (e.g., in strategic human resource management, work-family climate, and multi-
level empirical studies). The lack of success of these frameworks is therefore not necessarily due
to a lack of useful ideas. At least part of their lack of success is attributable to the relative youth
of the field. At the time these frameworks were introduced, there were neither well-accepted
typologies of work-family practices and policies nor a detailed understanding of how they affect
employees and organizations. This was acknowledged by the developers of these frameworks at
the time. In testing her response type framework, Kirchmeyer (1995) clustered several
organizational practices into her response types, forming a typology of general organizational responses to employee work-family needs. She argues that this typology helps to “conceptualize and examine the array of practices” employers might adopt. But she also acknowledged that the typology was limited by the relatively young body of research. Similarly, Goodstein (1994) called for more research examining organizational and environmental factors which affect organizations’ decisions whether or not to adopt policies and practices.

Another important shortcoming of these frameworks—and more likely the reason they have fallen into disuse—is that they treat the organization's work-family response too holistically. Organizations are dynamic, and it is difficult to argue that the organization has a general attitude or overall response to employees' work-family needs. In other words, these frameworks do not allow for much differentiation in the implementation of work-family policies and practices within and across organizations. On the contrary, by classifying what might be large and very diverse organizations with complex and uneven work-family practices into broad categories, these frameworks assume that there is little room for variation in how work-family policies and practices are implemented and applied. Yet, these frameworks still bring valuable insights about organization-level phenomenon that affect the way organizations ultimately implement work-family policies and practices. Though they do not necessarily line up perfectly with existing theory and typologies of work-family practices, there is still much to be gained from them.

The institutional pressure perspective provides context around the general decision of whether or not to adopt a work-family policy or practice. This context is useful for understanding the rationale behind a policy's adoption, the organizational goals with which a policy should be most closely aligned, and explaining some variation in the prevalence of various work-family
policies and practices. However, this perspective does not provide much detail about the policies themselves. For example, in empirically measuring an organization's practices, Goodstein (1994) used a count model which treated childcare and flextime practices as equal and gauged an organization's response on whether they offered one, both, or neither of these practices. But practices should not be treated as equal as they may have different effects and structures. Research has identified many types of work-family practices and classified them under various different typologies, for example as providing flexibility in the timing, place, or amount of work (Kossek & Michel, 2011) or as helping employees segment or integrate their work-family roles (Rau & Hyland, 2002; Rothbard et al., 2005).

The rational choice perspective emphasizes the employee and organization-level effects that work-family practices might have. While many studies over the years have acknowledged the potential strategic value of work-family policies and practices for employee attraction, retention, and sometimes even productivity (Batt & Valcour, 2003; Carless & Wintle, 2007; Honeycutt & Rosen, 1997; Kossek & Nichol, 1992; B. Lee & DeVoe, 2012; Rau & Hyland, 2002; Richman, Civian, Shannon, Hill, & Brennan, 2008), much remains to be discovered about when, how, and why work-family policies and practices benefit an organization's bottom line and when this benefit is substantial enough to warrant their cost. For example, it is unknown which types of practices appeal to which labor force segments and how heavily work-family policies weigh in to application decisions. This perspective can contribute to the need to make the business case for work-family (Kossek, Baltes, & Matthews, 2011; Kossek & Friede, 2005) and to an understanding of why work-family initiatives frequently fail or are marginalized by upper management (Kossek et al., 2010). This contribution is important because critics accuse the strategic human resource management perspective of ignoring institutional context and assuming
positive effects on organizational performance despite the context (Kaufman, 2010). Additionally, much like the institutional pressure perspective, the relatively small body of rational choice literature does not include much detail about the types of work-family policies and practices or when they might be most cost-effective.

The agency perspective's advantage is that it includes more information about how policies and practices might work and the organizational philosophy that might drive them. The three responses in this perspective (respect, integration, and separation) include a component describing how organizations manage employee work-family needs, whereas the others focus more generally on whether there will be a response at all. But this framework has problems as well.

While holistically categorizing complex organizations into only three types is problematic as discussed above, the three categories offered by this framework are also not consistent with current work-family research. For example, an organizational separation response does not distinguish between organizations that ignore the work-family needs of employees and those that encourage employees to actively segment their work and family roles, keeping them from interfering with one another as much as possible. Current research suggests that segmenting is a viable boundary management strategy for individuals and that policies and practices that grant employees greater boundary control to manage their roles as they wish are associated with better employee outcomes (e.g., Kossek & Lautsch, 2012; Kreiner et al., 2009). The conceptualization of the separation response does not recognize the difference between policies and practices that give employees greater boundary control to segment roles and the absence of any such practices. Additionally, these categorizations do not align neatly with work-family policies and practices. Researchers attempting to use this framework have been unable to agree
on whether a particular practice such as flextime or childcare should be considered as encouraging segmenting, integrating, neither, or both (e.g., Poelmans & Beham, 2008; Rau & Hyland, 2002; Rothbard & Ramarajan, 2009). These categorizations require major updates to be consistent with current work-family research and useful in understanding how work-family policies and practices are chosen and implemented by organizations.

A fully integrated model of the organizational response to employee work-family needs was not possible when this organization-focused line of research was developing. Indeed, these three different ways of looking at the work-family organizational response (institutional pressure, rational choice, and agency) all emerged nearly simultaneously and without much consideration of one another or actual practices and policies that have aptly been the focus more recently.

Given the substantial growth of work-family research over the past 20 years in this area, many improvements to these frameworks are possible that can retain their strengths while attenuating many of their weaknesses.

While individual-level research continues to remain important and evolve as labor force demographics, regulative policy, and even the fundamental way work is performed all continue to change, much of our current knowledge remains unsynthesized and over-generalized. For example, researchers generally assume that work-family practices should help organizational attraction and retention, but organizations may offer work-family policies for many different reasons including as part of a human resource strategy, a corporate social responsibility movement, or merely to comply with the law (Huselid, 1995; Jones & Murrell, 2001; O’Connor, 2005; Piszczek & Berg, forthcoming). The reason for the adoption of policy may contribute to its implementation, which is understood to have a substantial impact on a policy’s effectiveness (Ryan & Kossek, 2008). Similarly, employee attributions of a policy or practice to an entity may
affect how it shapes their attitudes toward that entity (Nishii, Lepak, & Schneider, 2008). The same policy on paper can thus mean many different things across organizations. In order to understand which policy best fits the needs of an organization and the context in which policies are effective or ineffective, more organizational and multi-level theoretical foundations are needed.

As I will discuss in greater detail in Chapter 4, a more complete framework that integrates the strengths of these three frameworks while remaining consistent with existing individual-level research has numerous advantages for future research. Such a framework would first help researchers better understand why organizations offer—or do not offer—particular work family practices and policies. Second, it would help explain which practices and policies contribute best to which broader organizational goals. Third, a more complete framework would be easier to align with modern work-family research that emphasizes practices and their effects on employees, and could explain consistency in the adoption of practices both within and across organizations. Fourth, though multi-level models can help put boundaries on the results of more micro-focused studies, a new organizational response framework can help researchers better contextualize their samples and identify which organizational and environmental factors might be most important to consider as study boundaries or as key variables. Fifth, such a framework provides a theoretical grounding for multi-level work-family studies and allows for complex patterns of work-family policies and practices. While the existing organizational work-family response frameworks are largely outdated or unadopted, many of their ideas (e.g., motivation, the legal context, strategic value) are still important and draw attention to the need for a broader perspective in work-family research. An integrated framework as described above has the
potential to explain inexplicable complexities in actual organizational practices and fuel new multi-level research.

1.4 Dissertation Structure

The remainder of this dissertation is written with an organizational perspective on the work-family interface in mind. Having introduced and critiqued existing organization-level frameworks meant to explain generally how and why organizations offer work-family practices and policies, two goals remain. The first goal is to present both micro and macro-level original empirical work-family research examining under-researched aspects of the organizational context that contribute to current research while providing evidence for the need for an integrated work-family organizational framework. The second goal, using these studies and other current research, is to develop such a framework and demonstrate its potential contribution to work-family theory, empiricism, and practice.

In order to accomplish these goals, this dissertation is broken into four chapters. The present chapter introduces the organizational work-family response literature, details the three organizational work-family response frameworks, and provides a breakdown of their strengths and weaknesses relative to modern research. Chapters 2 and 3 each consist of a standalone empirical study related to organizational work-family practice and policy important to current research topics but also the development of an integrated framework.

Chapter 2 focuses on the area of informational and communicative technology in knowledge-based work, a topic of growing importance and popularity. Research suggests that use of such technology is tied to role identities and can result in either increased flexibility in the time and place of work or employees simply performing more work and risking exhaustion (Derks & Bakker, 2012; Kossek, Lautsch, & Eaton, 2009; A. Ollier-Malaterre et al., 2013). I
argue that an organization’s expectations of employees’ use of technology will influence the way that this work is experienced by employees, either as a job demand or as a job resource (Karasek, 1979). I leverage boundary theory (Ashforth, Kreiner, & Fugate, 2000; Nippert-Eng, 1991, 1996; Zerubavel, 1993) to show how the use of information and communicative technology can be experienced as a job resource, and the technical control perspective (Callaghan & Thompson, 2001; R. Edwards, 1979) to explain how it can be experienced as a job demand. Furthermore, I investigate how the actual use of information and communication technology and the pressure to use it are experienced differently by employees with different boundary management styles, building on both studies of how technology impacts work (Chesley, 2005, 2006; Derks & Bakker, 2012; Diaz, Chiaburu, Zimmerman, & Boswell, 2012; Fender, 2010; Fenner & Renn, 2004, 2010; A. Ollier-Malaterre et al., 2013; Turel, Serenko, & Bontis, 2011) and how individuals manage their work-family role boundaries (Ammons, 2013; Kossek, Lautsch, & Eaton, 2006; Kossek et al., 2012; Kossek & Lautsch, 2012; Winkel & Clayton, 2010).

Using a sample of approximately 200 human resource managers whose work is amenable to performance via information and communication technologies, I show that organizations’ expectations of employees to stay engaged with the work domain outside of normal work hours contributes to employee stress when it is inconsistent with the employee’s preferred style of role boundary management. The study uses data from a two-wave, self-collected survey consisting of several scales to measure new constructs related to work-family role management and technology. Using multiple regression and rigorous tests of mediation and moderation, I find that employees that perceive higher organizational after-hours electronic communication expectations generally experience higher emotional exhaustion and turnover intentions, but that this relationship is especially strong for those who prefer to keep work and family roles segmented.
This study shows that technology should be considered as a tool for managing work-family roles and that it is inherently neither helpful nor harmful to employee well-being. Instead, it is the organizational pressure to use technology in certain ways that leads to greater employee stress.

The second study (Chapter 3) tests whether adoption of childcare practices by German establishments has led to reductions in employee turnover. I discuss in depth the environmental factors that make Germany a particularly appealing place for organizations to adopt childcare practices to increase employee retention, highlighting the cultural interaction of work and motherhood and public policy surrounding childcare. Recent research has argued that a lack of public policy granting employees the ability to manage their work-family roles provides an opening for organizations to step in and fill those gaps (Piszczek & Berg, forthcoming). I draw upon strategic human resource management theory (Huselid, 1995) to argue that doing so allows establishments the opportunity to reduce turnover levels.

Chapter 3’s analysis uses data from three years of the nationally representative, government-collected IAB Establishment Panel, which includes surveys of approximately 16,000 establishments per year in a stratified random sample of German establishments. I show that organizations that adopt childcare practices tend to have higher levels of turnover, but experience a reduction in turnover as a result of adopting these practices. The pattern of results suggests that, counter to initial expectations, establishments with high levels of turnover are most likely to have childcare practices. But, using establishment fixed effects to examine only change within establishments over time, the results show that establishments that adopt childcare practices subsequently experience reduced levels of turnover.

This study demonstrates not only that work-family practices (particularly childcare) may be able to provide strategic value to organizations but also that the contextual environment can
be very important in determining how to maximize this strategic value. Furthermore, this study makes empirical contributions to the strategic human resource management literature by separating within- and between-establishment relationships into separate analytic components, helping to address controversy encircling the causal direction of the relationship between human resource practices and organizational performance.

Finally, Chapter 4 discusses the results of the two empirical studies in the broader context of the organizational work-family response frameworks introduced in the present chapter and uses them to construct a new integrated organizational work-family response framework. I link key concepts from each existing framework together and to constructs known to be important based on current research. I show how each framework contributes different pieces to the puzzle of how organizations respond to employee work-family needs. In building this framework I make a case for the utility of an organizational work-family response framework in the modern work-family research and explain how it can be used to further research and practice.

1.5 Conclusion

Overall, this dissertation seeks to shed some light on the many ways in which organizations respond to employees’ need to manage work and family roles in a fashion that allows for the complex patterns of practices and policies observable in real world organizations. The two empirical studies take substantially different approaches, paralleling the vast spectrum of ways that organizations are considered in the work-family literature. The first is focused on the employee experience of an informal aspect of organizational work-family culture in a small sample survey of HR managers in the United States, while the second is focused on organizational performance of establishments in Germany using archival establishment-level surveys collected by the German government. But despite their differences in scope and focus,
both speak to the same question: How do organizations react to a world where employees increasingly need to devote time to non-work roles? Individually, these two studies provide some specific insights into this question and contribute to more narrow work-family literatures: the growing literature on technology and work-family role boundary management, and the strategic human resource management literature grounded work-family policy literature. But together, as I will discuss in Chapter 4, they show that the navigation of work and family roles is complex and organizations can react to employees' work-family needs in many different ways, for many different reasons, and with potentially many different outcomes.
2 Two Faces of Technology: Organizational Expectations at the Work-Family Interface

2.1 Introduction

The previous chapter discussed the development of the organizational work-family response framework and its role in past and current research. Chapter 2 examines a specific part of an organization’s work-family response that has evolved as organizations adapt to new ways of working created by technological advances. The focus of this study is on the expectations that organizations set for their employees’ use of information and communicative technologies, which is one largely informal way an organization may attempt to manage employees’ work-family needs. It is a stand-alone empirical study that provides major insight into a current issue in the human resource management and work-family literatures, but also has implications for the work-family response framework.

As I will explain in greater depth, researchers have identified conflicting effects of information and communicative technology use on employee well-being. On one hand, it can give them greater boundary control and help them work more efficiently, but on the other hand it can lead to intensification of work and spillover of work into the family domain (e.g., Diaz et al., 2012). This study answers the call for more research on how information and communication technology affects employee boundary management (Day, Scott, & Kelloway, 2010) by further developing and testing the recently created construct of after-hours electronic communication expectations (Fender, 2010) and examining how these expectations shape the way different employees use and experience information and communicative technology.

2.2 Technology at the Work-Family Interface

Rapid advances in technology are creating new issues in the world of work. In mid-October, 2011, BlackBerry smartphone users across the world experienced a crisis when they
suddenly found themselves the victims of an international data network collapse. Because professionals saw their BlackBerry smartphones as essential to their work, the backlash was substantial. Some customers initiated a class-action lawsuit against BlackBerry’s network maintainers and many others threatened to move to other service providers (Taylor, 2011). Around the same time, Volkswagen reached an agreement with its German employees to reduce the reach of technology by eliminating after-hours emails in response to complaints of blurred work-family boundaries (BBC, 2011). Volkswagen barred work-related e-mails on Saturdays.

Thirty five percent of all adults in the United States owned a smartphone in 2011, rising to 56% in 2013 (Smith, 2011, 2013). A recent poll suggests that up to 80% of working adults in the U.S. take work home with them in some form, spending an average of 30 hours a month on work tasks outside of the workplace (Good Technology, 2012). However, the same report also suggests employees are working more on their own schedule. Information and communicative technologies (ICTs) have changed the way that people work over the past few decades and become a fixture in the modern workplace (Boswell & Olson-Buchanan, 2007). These technologies consist of personal devices and services that facilitate the transmission of knowledge by enabling written or vocal communication across physical and temporal boundaries. ICTs such as e-mail, voice mail, text messages, and instant messages are sometimes discussed interchangeably with their associated delivery mechanisms, such as laptop computers or smartphones.

As I discuss in depth below, ICTs are thought to be used by organizations to improve the flow of information, streamline organizational processes, and simplify coordination processes. But while ICTs may provide such benefits, they may have other less desirable effects on employees. As these technologies continue to advance, so too does the ability to communicate
with the workplace outside of the normal work domain and perform work tasks in practically any physical location and time (Kreiner et al., 2009). Identifying, understanding, and appropriately balancing the potentially conflicting effects of ICTs remains a challenge for work-family researchers and human resource managers.

Understanding the implications of employees’ adoption and use of ICTs is most critical for employees in knowledge management roles. Organizations have been increasingly using ICTs for the purposes of knowledge management (Schultze & Boland Jr., 2000) and knowledge work is simultaneously becoming more dependent on technological systems (Bailey, Leonardi, & Chong, 2010). This is critical as Organization for Economic Cooperation and Development (OECD) country economies grow more dependent on the transmission of knowledge (OECD, 1996). Knowledge-based workers’ core job tasks involve the creation and transfer of knowledge and they are often at the forefront of new ICTs. While other types of employees may use ICTs frequently for purposes of coordination or communication (e.g. to try to trade shifts with someone at a manufacturing facility or to ask a colleague whether a certain task has been performed), knowledge-based workers add value to an organization primarily through creation and transmission of knowledge (Blackler, 1995). Because knowledge-based work has become more important to organizational performance and has grown in tandem with technological advances, knowledge-based workers are an ideal starting point to examine the impact of ICTs on employee well-being.

Another reason to focus on knowledge workers is that although knowledge work is arguably most amenable to performance via ICTs, the implications of using ICTs for such work are poorly understood. Both researchers and human resource management practitioners have struggled to keep up with rapid technological advances and their adoption by the working world,
even though core job tasks of researchers and human resource management practitioners themselves are often performed through ICTs.

Partially due to the lack of concrete empirical studies, the use of ICTs by employees has been controversial both in practice and in research. While some praise the flexibility they grant employees, others suggest that they have intensified and lengthened the workday, with undesirable consequences for other life roles. Practitioners and researchers alike do not know the full extent of these consequences of ICT use for employees or how they can help employees use ICTs in ways which help them work smarter rather than longer. In order to maximize the utility of ICTs, employers need to understand how to build ICTs into the design and organization of work in a way which does not put employees at risk of overwork. As of now, employers’ main concerns around ICT use seem to be elsewhere.

A recent survey by the Society for Human Resource Management (2012) suggests that the majority of employers that have after-hours ICT use policies craft them around data security and privacy rather than employee well-being. That is, if they have ICT use policies at all. Arguably as a result of the lack of knowledge around the consequences of ICT adoption in the modern working world, only 21% of organizations have a formal policy for after-hours ICT use. More reported having an informal policy (26%). Given the growing adoption and use of such technologies and potential legal ramifications (such as whether ICT-based work in the home could be considered overtime) (Kakabadse, Porter, & Vance, 2009), it is critical for organizations to understand the impact of ICTs on their employees and create policies to help manage that impact into desirable outcomes for both employer and employee. Of the 21% of organizations with formal policies in place, 53% were concerned only with company-owned devices provided to employees while only 27% mentioned a concern with work-life balance.
This report also finds that of those organizations without formal or informal policies surrounding wireless communication device usage, 87% allow employees to manage their use on their own.

Thus organizations’ most common response to issues of ICTs is to let employees manage ICTs—and their effects on work-family role management—on their own. However, research shows that proactively considering employees’ work-family needs is associated with increased employee well-being and organizational commitment (Bulger, Matthews, & Hoffman, 2007; Hall & Richter, 1988; Orthner & Pittman, 1986). Furthermore, organizations that perceive themselves as having no work-family agenda may in fact be informally encouraging the use of ICTs for work purposes at home. As this study will show, employers play a critical part in the way employees manage ICT use through informal expectations, a component of organizational culture. Understanding the part of organizations in employee work-family role management is essential to crafting quality ICT use policies that take into consideration employees’ role management and well-being but still meet organizational needs.

Such an understanding is lacking not only in practice but also in research. Despite being a topic receiving more and more attention, scholars lack a clear understanding of when and how ICTs are helpful or hurtful to employees. Collectively, studies have yielded mixed results. Streams of research arguing the promises and pitfalls of ICT use have recently converged, as current research has begun to explore why in some cases ICTs are helpful to employees and in other cases they are hurtful. One explanation may be that employees are better able to appreciate the flexibility benefits of ICT use when they are able to use ICTs freely, i.e., without being pressured by their employers to use them in a certain way. As I argue below, organizations that have organizational expectations keeping employees electronically tethered to the workplace
after normal working hours may be putting some of their employees at risk of increased emotional exhaustion, potentially leading to turnover.

Furthermore, this body of research has not adequately captured the role of employee characteristics in examining the relationship between ICT use and employee outcomes. Individual characteristics such as an employee’s work-family role management style may play a critical part in determining how employees experience expectations of ICT use and ICT use itself. Certain individuals may be more at-risk for problems associated with ICT use than others. Similarly, certain individuals may more readily experience the benefits of ICT use than others. Yet what individual characteristics determine these differences remain unknown.

In the present study, using a two-wave survey of 204 human resource managers, I show that ICT use is neither inherently good nor bad; it is the reason for its use that largely determines whether employees use it to work smarter or work more. This study thus contributes to theory in multiple ways. First, it contributes to the emerging body of literature bringing together competing views on ICTs and their conflicting effects. Second, it identifies both organizational and individual-level factors which may influence how employees use and experience technology. Third, it adds considerable theory from multiple disciplines to what has largely been treated as an empirical question by utilizing the job demands-resources model (Karasek, 1979), boundary theory (Ashforth et al., 2000; Nippert-Eng, 1991, 1996), and the technical control perspective of the organization (R. Edwards, 1979). Finally, it demonstrates the importance of considering an organization’s expectations for employee ICT use in studying work-family role management in the modern workplace.

Practically, the study also shows that even though organizations mostly let employees manage their own ICT use on their own time, they may be having an unconsidered and
undesirable influence on how and how much employees use ICTs. I argue that formal policy and clear expectations are better ways to ensure ICT use by employees that avoids creating unnecessary strain and risk of turnover, while still allowing employees to experience the other benefits of ICT use such as greater flexibility and enhanced coordination. The remainder of this chapter reviews the literature surrounding the purported desirable and undesirable effects of ICT use for employees, leverages the three above-mentioned theoretical perspectives to combine these two empirical streams and identify the underlying reasoning for their conflicting findings, and then describes and tests the resulting hypotheses.

2.3 The Two Faces of Technology

Most research on the use of information communicative technology for work purposes while at home falls under one of two perspectives: treating it as an intensifier of work or as a flexibility enabler. The intensification perspective outlines several mechanisms through which ICT use can be difficult for employees managing multiple role demands and can lead to increased role conflict and stress. One emerging perspective suggests that the use of ICTs for work purposes at home leads to stress by preventing post-work recovery (Derks & Bakker, 2012). However, the two most well understood mechanisms through which ICTs are thought to intensify work are first by increasing the overall total amount of time employees spend working and second by allowing work demands to interfere with meeting of demands from other life domains (Barley, Meyerson, & Grodal, 2011; Duxbury, Towers, Higgins, & Thomas, 2006; Fligstein & Sharone, 2002; Towers, Duxbury, & Thomas, 2005). These two mechanisms can each be explained by separate theoretical perspectives related to working time.

The first mechanism linking ICT use to work intensification states that it can increase the overall amount of work an employee performs, fitting more work tasks into the same amount of
time or spending time and effort on work tasks outside the work domain. E-mails are faster, easier, and cheaper than other forms of communication (Bellotti, Ducheneaut, Howard, Smith, & Grinner, 2005; Dawley & Anthony, 2003; Manger, Wicklund, & Eikeland, 2003; Thomas et al., 2006). They allow employees to communicate more effectively (Dedrick, Gurbaxani, & Kraemer, 2003) and can be used to strategically improve employee productivity (Baron, 2005). The work-intensification perspective is consistent with Edwards’ theory of technical control of employee effort (R. Edwards, 1984), which states that organizations maximize employee effort through the design of technical systems in the workplace. Though this perspective was formed with manufacturing production flow in mind, it still applies today with more modern technical systems and has been applied to research in modern workplaces such as call centers (e.g., Callaghan & Thompson, 2001). ICTs allow employers to have higher expectations for the amount of work accomplished in one day. By manipulating the pacing and flow of work through requiring increased use of ICTs, employers can exert more total work effort from employees.

Similarly, ICTs allow employers to have higher expectations regarding availability of employees after work hours. This is the basis for the second mechanism linking communicative technology to work intensification: ICTs change the boundaries between work and non-work roles, enabling work-domain tasks to more easily spill over into other life domains (Boswell & Olson-Buchanan, 2007; Chesley, 2005; Duxbury et al., 2006; Major, Klein, & Ehrhart, 2002; Towers et al., 2005). This spillover and its importance are explained by boundary theory.

Boundary theory (Nippert-Eng, 1991, 1996; Zerubavel, 1993, 1996) posits that individuals vary on a continuum in the degree they prefer to integrate or segment their various life roles. They construct mental boundaries separating each role domain, which can vary in the degree to which they are flexible (i.e., can be physically or temporally adjusted) and permeable
(i.e., the ease with which a role domain's mental space can be infiltrated by another's). Role domains with flexible and permeable boundaries are easily integrated while those without them are easily segmented. There are tradeoffs inherent with each type of strategy (Keeney, 2012). Roles with flexible boundaries are easier to transition between but may blur together (Ashforth, Kreiner, & Fugate, 2000). Research linking ICTs to work intensification shows that ICTs enable work demands to invade the non-work domain (Jacobs & Green, 1998; Schor, 1993). Similarly, ICTs can also create interruptions in concentration and create additional coordination and time management tasks, which may increase task completion time (Bellotti, Ducheneaut, Howard, & Smith, 2003; Bellotti et al., 2005; González & Mark, 2004; Renaud, Ramsay, & Hair, 2006; Whittaker & Sidner, 1996).

Thus, ICTs have the potential to make employees work harder and longer, and allow work domain tasks to more easily invade other life domains. But ICTs are also thought to be helpful for employees. Though flexible and permeable role boundaries can lead to blurring and interruptions, they also have beneficial aspects. ICTs create role boundary flexibility, which is associated with easier transitions from work to non-work role domains and *vice versa* (Ashforth et al., 2000). While the flexibility granted by communicative technology makes it easier for work demands to invade the non-work domain, it also makes switching back and forth rapidly between demands easier. By allowing employees to work more flexibly, ICT use can potentially grant employees additional autonomy, control over their work location, and customization of working time. For instance, ICTs have been argued to grant employees control over their work-life boundaries to integrate or segment role demands as necessary (Golden & Geisler, 2007; Kaufman-Scarborough, 2006; Robinson & Godbey, 1997). Indeed, some research suggests that employees tend to see ICTs as an asset rather than a burden (Baron, 2005; Day, Scott, &
Kelloway, 2010). Research also shows that control over work-family boundaries is linked to desirable employee outcomes (Kossek et al., 2012).

Additionally, many of the reasons that allow ICTs to intensify work also allow them to make work easier. As mentioned above, e-mails are faster, easier, cheaper, more effective, and more productive than other forms of communication (A. Baron, 2005; Bellotti et al., 2005; Dawley & Anthony, 2003; Dedrick et al., 2003; Manger et al., 2003; Thomas et al., 2006). While the relative ease of ICT-based work allows organizations to raise the bar for the amount of work performed in a given time period, it can also mean work requires less time and effort than in the past working world without them.

All in all, there is substantial empirical evidence and theoretical rationale suggesting that ICT use can have both potentially desirable and undesirable effects on employees. Recently, research has begun to move toward a more nuanced perspective that differentiates between these competing effects (Day et al., 2010; Derks & Bakker, 2010; Diaz et al., 2012; Matusik & Mickel, 2011; Nansen, Arnold, Gibbs, & Davis, 2010). Some studies in this newer line of research on the dual-centric nature of ICTs have drawn from a job demands-resources perspective (Day et al., 2010; Derks & Bakker, 2010).

The job demands-resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Karasek, 1979) posits that stress and exhaustion on the job are a result of two processes: high job demands or low job resources. Job demands are “physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs” while job resources are those that either are “functional in achieving work goals,” “reduce job demands,” or “stimulate personal growth and development” (Demerouti et al., 2001). Resources are necessary for individuals to reach their goals; too many
demands can lead to exhaustion while insufficient resources can create withdrawal or disengagement from the job and decreased motivation as a mental mechanism to prevent further frustration.

This perspective helps contextualize the competing effects of ICTs by allowing identification of situations in which they are either helpful or hurtful. In other words, ICTs can function as either a demand or a resource (Day et al., 2010; Derks & Bakker, 2010). ICTs can be a job resource when they help employees work more efficiently or increase productivity (i.e., being functional in the achievement of work goals) or when they help employees better manage their work and family role demands (i.e., reducing the job demand of role conflict). ICTs can be a job demand when they create role conflict or additional work pressure. The context of the use of an ICT may help determine whether it primarily functions as a job resource or as a job demand. A review of ICT research reveals that few such contexts have been identified and even fewer have been empirically examined.

One relatively early study—with data from before the widespread adoption of smartphones—discussed the conflicting effects of technology in a descriptive review of research on ICT use focusing on email (Derks & Bakker, 2010). Day and colleagues (2010) largely discuss the role of ICTs in the workplace rather than at home. They provide a rich discussion of potential factors which may make communicative technology function more as a job demand or resource, but do not test any of these factors. A qualitative study found that the reasoning behind the use of ICTs played an important role in whether people reacted to it in positive, negative, or mixed terms (Matusik & Mickel, 2011). A more recent study shows that perceptions that ICTs provide flexibility were related to work satisfaction and work-life conflict, mediated by technology use (Diaz et al., 2012). This study argues that those who perceive technology to help
them work more flexibly would use technology more and experience more desirable outcomes, but it does not identify the conditions which enable employees to use technology flexibly or could potentially link technology use to undesirable outcomes.

Only one study shows moderating conditions that determine whether ICT use has desirable or undesirable effects on employees. Fenner and Renn (2010) identified several antecedents to what they termed technology-assisted supplemental work, and showed that individual time management skills helped reduce its positive relationship with work-family conflict. This study also showed that organizational pressure to use technology for work purposes outside of the workplace was related to its actual use. Overall, researchers acknowledge that an understanding of the desirable and undesirable effects of ICT use and when and why each occurs is important but lacking in existing research (Day et al., 2010; O’Driscoll, Brough, Timms, & Sawang, 2010). So far few potential explanatory mechanisms to understand when which effect—work intensification or work flexibility—might take precedence have been identified and empirically tested.

As such, researchers have an incomplete understanding of when ICT use may function as either a job demand or job resource. Organizational climate for ICT use is one contextual factor which may play a major role in how ICTs are used by employees. In a theoretical paper, Fenner and Renn (2004) leveraged theories of organizational behavioral norms (Rousseau, 1990) to argue that organizational climate could create an increase in the use of technology-based work outside of work hours. These authors later provided empirical support for this argument, described above (Fenner & Renn, 2010). In their qualitative study, Matusik and Mickel (2011) similarly identified this pressure as a key component in interviewees’ experience of technology and a motivation of its use.
The current study builds upon this argument by suggesting that organizational climate (specifically in the form of after-hours electronic communication expectations) plays a key role not only in the extent of employees’ use of ICTs as shown in previous studies but also how employees experience their use. I argue that after-hours electronic communication expectations determine whether employees experience ICT use as a job demand or job resource. I also argue that individual differences may also shape how these expectations are experienced by employees. The current study draws heavily on boundary theory to build upon previous studies and explain different patterns of technology use and why individuals in the same organization may not experience expectations in the same way.

2.4 Hypothesis Development

The conceptual model for the present study is shown in Figure 2.1. As explained above, a core tenet of boundary theory is that some people prefer to integrate their work-family roles while others prefer to segment them. Though there is recent support for more complex and less temporally stable patterns of role boundary management including additional categories such as alternators (Kossek & Lautsch, 2012; Kossek et al., 2012), the majority of boundary management research places individuals’ boundary management preferences somewhere on a continuum between complete integration and complete segmentation (G. Chen, Kanfer, DeShon, Mathieu, & Kozlowski, 2009; S. Desrochers, 2005; Stephan Desrochers & Sargent, 2004; J. Edwards & Rothbard, 1999; Kreiner et al., 2009; Kreiner, 2006).

While ICTs can potentially be used to segment work and family roles (e.g. by turning off a cell phone to avoid work-related phone calls or keeping separate work and personal calendars), ICTs are primarily a tool of integration. They increase permeability of the family role boundary, creating a pathway through which work role demands can spill over to the family domain. ICTs
increase flexibility of the work role boundary by making it possible to perform work in places and times outside the typical sphere of the work domain. Because ICTs are primarily a tool of integration, those who prefer integrating their work roles into the family domain should use communicative technology more for work purposes while at home. Conversely, those who prefer to segment their work role from the family domain should use ICTs less for work purposes while at home. This is shown in Figure 2.1 with the arrow from work-to-family segmentation preferences to work-to-family ICT use. In the model, I use “segmentation preferences” to indicate the degree to which an individual prefers to segment work from family as opposed to integrating work into family.

Figure 2.1: Theoretical model with hypotheses

![Theoretical model with hypotheses](image)

Notes: Dashed lines represent negative relationships.
AECE=After-hours electronic communications expectations

Hypothesis 1: Work-to-family segmentation preferences are negatively related to work-to-family ICT use.

Still, even segmenters may sometimes feel compelled to integrate work role demands into the family domain under certain circumstances. According to the technical control perspective (Edwards, 1979), organizations can utilize technology to structure work in order to maximize
employee effort. Some organizations may have a social norm in which employees are pressured to stay electronically tethered to the organization, being available to meet work role demands at all times and places. Some research has shown that this pressure or social norm—called after-hours electronic communications expectations—is related to a perception of being electronically tied to an organization (Fender, 2010), and similar climate measures have been linked to use of ICTs for supplemental work purposes (Fenner & Renn, 2010). A segmenter in a high after-hours communications expectation climate must still integrate work into the family domain in order to conform to organizational norms and expectations and remain employed. These expectations can override the segmenter's personal desire to segment, potentially erasing the difference in ICT use behavior between segmenters and integrators hypothesized above. This moderating relationship is shown in Figure 2.1 by the arrow from after-hours communications expectations pointing to the arrow linking work-to-family segmentation preferences to work-to-family ICT use, indicated by the label H2.

Hypothesis 2: The negative relationship between work-to-family segmentation preferences and work-to-family ICT use is moderated by after-hours electronic communications expectations such that the relationship is less negative when expectations are higher.

The Job Demands-Resources Model predicts that the absence of job resources should be related to disengagement from work while the presence of job demands should be associated with increased burnout (Demerouti et al., 2001; Schaufeli & Bakker, 2004). One dimension of burnout, shown to be strongly linked to job demands, is emotional exhaustion (R. T. Lee & Ashforth, 1996). Emotional exhaustion is a feeling of being overextended by the emotional demands of work (Demerouti et al., 2001). It is widely treated as a measure of stress based on its conceptual overlap with more direct stress reactions and relationship with stressors such as
workload, role problems, and stress outcomes like turnover intentions and absenteeism (Demerouti et al., 2001).

Because ICTs in and of themselves are neither a job demand nor a job resource, their use should not be directly linked to employee exhaustion. But, an organization’s after-hours electronic communications expectations may provide insight into whether ICTs are functioning as a demand or a resource in a particular organizational context. A higher after-hours communications expectation climate suggests that the use of ICTs for work purposes at home is at least partially driven by organizational pressure rather than an ability to work more flexibly. In this context, ICT use is experienced as a job demand that increasingly uses up an employee’s resources or prevents resource recovery (Derks & Bakker, 2012). Employees using ICTs in the work-to-family direction may end up feeling more exhausted or burned out with their work due to the work intensification effect (i.e., working faster and working more overall).

On the other hand, when employees are in a lower after-hours communications expectation climate, they are free to use ICTs in the work-to-family direction as they choose. While segmenters may elect not to use work-to-family ICTs at all or only for very specific purposes, this use may benefit integrators who gain from it desired flexibility. Thus in high after-hours communications expectation climates, work-to-family ICT use is less flexible, functions as a job demand, and should be more exhausting. In low after-hours communications expectation climates, work-to-family ICTs can function as a job resource, at least for integrators. The net effect of work-to-family ICT use on exhaustion should therefore be negative in lower after-hours communications expectation climates. In other words, using ICTs is more demanding, on average, when after-hours communications expectations are high than when they are low. This
moderation is shown in Figure 1 with the arrow linking work-to-family ICT use to emotional exhaustion and the arrow pointing to it from after-hours communications expectation.

Hypothesis 3: After-hours electronic communications expectations moderate the relationship between work-to-family ICT use and emotional exhaustion such that it is positive when after-hours communications expectations are high and negative when after-hours communications expectations are low.

While after-hours communications expectations may be a factor in how employees experience the use of ICTs, they might also play a role in how employees experience their own segmentation preferences regardless of their actual ICT use. Conceptually, there is little reason to expect that segmentation preferences alone are associated with emotional exhaustion; neither segmenting nor integrating is inherently better or worse for employee well-being. Research suggests that it is the fit between segmentation preferences and actual ability to segment that drive individual outcomes (Edwards & Rothbard, 1999; Kreiner, 2006). Once again, though, after-hours communications expectations might be a contextual factor that changes how an individual’s preferences are experienced.

For example, being in a high after-hours communications expectation climate may be especially demanding on segmenters, who prefer to keep their work role demands out of the family domain. Given an identical level of after-hours communications expectations, a segmenter may perceive higher levels of work pressure than an integrator, even if he or she is not using ICTs very frequently. Work pressure is one type of well-recognized job demand (R. T. Lee & Ashforth, 1996). Hypothesis 2 suggests that segmenters will be more likely to use work-to-family ICTs in higher after-hours communications expectation climates, but regardless of their
levels of ICT use, segmenters may experience the pressure to stay connected differently than integrators, i.e. as a job demand.

For integrators, the pressure to stay connected is compatible with their own preferred boundary management preferences and so this pressure should be less demanding. For segmenters, after-hours communications expectations are incompatible with their preferences, creating dissonance between actual and desired states of boundary management, resulting in increased stress. Thus, while integrators may not be affected by after-hours communications expectations, simply being in an environment of high after-hours communications expectations may create stress for segmenters regardless of their actual ICT use. This is shown in Figure 2.1 with the arrow linking work-to-family segmentation preferences to emotional exhaustion (through work-family conflict as described below) and the arrow pointing to it from after-hours communications expectations.

Hypothesis 4: After-hours electronic communications expectations moderate the relationship between work-to-family segmentation preferences and emotional exhaustion such that it is positive when after-hours communications expectations are high.

Hypotheses 3 and 4 link work-to-family ICT use and work-to-family segmentation preferences to emotional exhaustion, respectively, moderated by after-hours communications expectations. However, these different pathways to emotional exhaustion may not operate the same way; they may be related to emotional exhaustion through different explanatory mechanisms. In other words, after-hours communications expectations may be creating different types of job demands in each interaction. Identifying and testing these mechanisms may shed additional insight as to why these variables might be related to levels of emotional exhaustion.

Lee and Ashforth (1996) identify eight job demands, some of which can be used to show
mechanisms through which the hypothesized relationships may be functioning. For the current study, work pressure and role conflict are most relevant.

Work pressure is one type of job demand strongly associated with emotional exhaustion (Bakker, Demerouti, & Dollard, 2008; Demerouti, Bakker, & Bulters, 2004; Demerouti et al., 2001). When workers experience high workload or time pressure, they experience a loss of psychological and physical resources which can lead to emotional exhaustion (Demerouti et al., 2001). Role conflict is a second relevant job demand. Work-family role conflict occurs when work role demands prevent a person from completing demands associated with the family role (Frone, Russell, & Cooper, 1992; Greenhaus & Beutell, 1985). These conflicts are most typically time-based or strain-based. In time-based conflict, the amount of time needed for work role demands takes away from time needed to adequately meet family role demands. In strain-based conflict, strain from work role demands makes it more difficult to meet family role demands.

Hypothesis 3 states that work-to-family ICT use will be more positively related to emotional exhaustion under high after-hours communications expectation climates. I argue above that under such conditions, ICT use is a result of organizational technical control. After-hours communications expectations are conceptualized as a measure of a job demand that could be categorized as work pressure as they are an expectation for additional work to be performed. Lee and Ashforth’s (1996) meta-analysis showed a significant, positive relationship between work pressure and emotional exhaustion.

When considering work-to-family segmentation preferences, after-hours communications expectations may function as more than work pressure; they may also be a source of conflict between work and family roles. Segmenters in high after-hours communications expectation climates may experience greater work-family role conflict in addition to work pressure because
after-hours communications expectations are incompatible with their preferred role boundary management preferences. After-hours communications expectations compel segmenters to integrate work demands into the family domain against their will. This creates the perception that desired family role time is being taken up by work demands. Similarly, it increases the likelihood that stress from work demands will permeate into the family domain because work tasks are being performed in the home. Thus, segmenters will experience after-hours communications expectations as increased role conflict while integrators will not.

Research also suggests that work-family role conflict and perceptions of work pressure may exacerbate one another (Demerouti et al., 2004). Integrators may experience less role conflict from after-hours communications expectations because the pressure to use ICTs to work from home is compatible with their preferred role boundary management strategy. Whether segmenter or integrator, though, an individual should still experience more work pressure from higher after-hours communications expectations. Thus work-family conflict should only partially mediate the after-hours communications expectation and segmentation preference interaction on emotional exhaustion.

Hypothesis 5: The interaction of after-hours electronic communications expectations and work-to-family segmentation preferences on emotional exhaustion is partially mediated by work-family conflict.

Finally, stress has important consequences for employees’ working lives. Over time, stress takes its toll and employees may seek less stressful employment elsewhere. Research on job demands and resources has theoretically linked emotional exhaustion to increased turnover intentions (e.g., Schaufeli & Bakker, 2004) and this link has received wide empirical support (e.g., Lee & Ashforth, 1996). Studies also suggest that inability to manage ones role boundaries
effectively contributes to turnover, particularly for teleworkers, suggesting an overall link between work-family role boundary management and turnover (Kossek et al., 2009, 2012; Lautsch, Kossek, & Eaton, 2009). Consistent with this line of research, emotional exhaustion should be positively related to turnover intentions. This is shown in Figure 2.1 by the arrow linking emotional exhaustion to turnover intentions.

Hypothesis 6: Emotional exhaustion is positively related to turnover intentions.

Together these hypotheses suggest a complex set of interactions between an employee’s preferred boundary management style, pressure to manage boundaries in a certain way, and actual use of information and communicative technologies to manage boundaries in that way. At the core of this relationship is whether the organization pressures employees to use ICTs to integrate work into the family domain. In other words, an employee’s level and experience of ICT use will depend on whether the organization pushes employees to use ICTs to intensify work or allows them to use ICTs to enhance their work-family role boundary control.

2.5 Methods

2.5.1 Measures

The complete final survey instrument, omitting extraneous measures unused in the analysis, can be found in Appendix A. Numerous demographic and work characteristics were assessed in the survey: age, number of children under 18 living in the household, marital status, and whether the employee was involved in caring for an elderly family member. Participants also reported whether they worked in the human resources field, the industry they worked in, and weekly hours worked both at the workplace and at home. With the exception of working in the human resources, which was used as a screen for inclusion in the sample, these measures functioned as control variables.
The purpose of including these variables as controls is to account for their potential influence on the dependent variables and demonstrate that the focal independent variables (after-hours communications expectations and work-family ICT use) are related to the dependent variables even when partiailling out their relationships with these other variables (Carlson & Wu, 2012). Distribution of working time at home versus the workplace, being in a non-manufacturing industry, and family demands are plausibly positively related to the degree to which an employee uses technology for work-family purposes and their likelihood of being in an organization with higher after-hours communications expectations. Older employees and women are more likely to have family demands which may result in greater baseline levels of emotional exhaustion or time spent working from home. Given the frequency of employees in the sample that fit in these categories omission of these variables could potentially result in spuriously high relationships between the independent and dependent variables. Similarly, these variables are plausibly related to the amount of emotional exhaustion and work-family conflict experienced by employees.

Several measures assessed individuals’ relationship with technology. After-Hours electronic communications expectations ($\alpha=0.86$) describe the degree to which the organization expects to be able to reach the employee through communicative technology while he or she is away from the workplace. This seven-item measure was adapted from Fender (2010). Though it showed good psychometric properties in that study, some items were slightly reworded to eliminate possible ambiguities and to more broadly apply to various mediums of information communicative technology.

ICT use for home and work purposes were measured using two scales developed and validated for this study, as described in the following pilot data analysis section. Several items for the scale were based on items developed for a similar scale by Fender (2010), titled "response
to electronic communications behaviors. However, this scale does not differentiate between technology use for work and family purposes or the location of the technology use and therefore required adaptation in the current study. The *work-to-family ICT use* (WF ICT use, $\alpha=0.94$) and *family-to-work ICT use* (FW ICT use, $\alpha=0.94$) scales used here describe the extent to which employees use information communicative technology to meet work demands while at home and family demands while at work, respectively.

FW ICT use was included as a control for a more general tendency to use technology (potentially confounding the measurement of WF ICT use) and to ensure that analyses captured attitudes and behaviors about work-to-family role management separately from those associated with family-to-work role management, as research suggests important differences between the two (Frone et al., 1992; Kossek et al., 2012). This is important as individuals may have a general propensity toward technology use regardless of work-to-family or family-to-work direction and individuals vary substantially in their ability and willingness to use technology (e.g., King & He, 2006).

Several scales measured the state of employees’ work-family role management. *Work-family conflict* ($\alpha=0.93$) was measured using a five item widely used and well-accepted scale (Netemeyer, Boles, & McMurrian, 1996) and assessed the degree to which employees' work demands prevented them from meeting family demands. *Work-family segmentation preferences* ($\alpha=0.90$) were measured using a scale from Kreiner (2006) and assessed the degree to which employees preferred to keep their working roles in the work domain. The measure was adapted to form a *Family-work segmentation preferences* ($\alpha=0.85$) scale, used as a control for reasons similar to those for including the FW ICT use scale, i.e. to ensure the measure was capturing the appropriate direction of the preference rather than a general propensity to segment.
Work role identity ($\alpha=0.80$) and family role identity ($\alpha=0.93$) were measured using two items each, from Kossek, Lautsch, and Eaton (2006). These items measured the strength with which a person identifies as work or family-focused and were also included as controls as they may influence an individual’s perceptions of role conflict and stress. In addition, work methods autonomy ($\alpha=0.88$) was included as a control using the three-item scale from the Work Design Questionnaire (Morgeson & Humphrey, 2006), a carefully validated measure covering many specific facets of work design. This was included as those with higher autonomy are more likely to be able to use ICTs to perform work more flexibly, and the study seeks to show the importance of WF ICT use and after-hours communications expectations above and beyond job design.

Finally, two dependent variables were measured. Emotional exhaustion ($\alpha=0.92$) was assessed using a subscale of the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1997). This scale defines emotional exhaustion as "a state of exhaustion in which one is cynical about the value of one's occupation and doubtful of one's ability to perform." The MBI has been used in over 70 studies as early as 1996 (R. T. Lee & Ashforth, 1996). This measure was chosen not only for its general acceptance in the literature but also for its careful development. Turnover intentions ($\alpha=0.94$) were measured using a straightforward two-item measure adapted from Boroff and Lewin (1997) and assessing the employee’s plans to voluntarily quit within the next year. Prior to conducting primary research, I conducted a pilot study to provide empirical validation and support for the scale adaptations and development described above.

2.5.2 Pilot Survey Analysis

In order to provide evidence for the validity and reliability of some new and adjusted measures as well as to test the survey instrument for errors and completion time, I conducted a
small pilot of the survey. Participants were students in a human resource management master’s degree program. Students were invited to participate via e-mail, and data was collected online from 51 students. The full survey took participants typically between 10 to 15 minutes.

2.5.2.1 Scale Reliability

Reliability was acceptable for all scales except for turnover intentions, however given the nature of the sample the turnover intentions measure is likely not appropriate. Many students of were likely not employed or knew they would be quitting their jobs upon graduation. Despite this, reliability was very close to practical acceptable levels and thus the scale was retained for the final survey (in which an acceptable reliability coefficient was indeed observed). Alphas for each scale from the pilot sample are presented in Table 2.1.

2.5.2.2 ICT Use Scale Construction

Work-to-family (WF) and family-to-work (FW) ICT use were scales constructed for the current study. These scales are heavily based on the Receptive Electronic Communications scale used by Fender (2010). The primary differences are that Fender’s items were specific to smart phones and cell phones while the present items address technology more generally, with the intent of including other common ICT mediums such as laptop computers. As a result some items were modified or rewritten. Additionally, Fender’s scale was work-to-family only; the present study adapts the work-to-family items into a separate family-to-work scale by changing the direction of the item wording to use as a control for more general technology use. Additionally, I sought to reduce the length of the scale in order to minimize the burden on participants.
Table 2.1: Number of scale items and alpha coefficients for the pilot study.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
<th>Alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-to-family Technology Use¹</td>
<td>13</td>
<td>0.956</td>
</tr>
<tr>
<td>Family-to-work Technology Use¹</td>
<td>13</td>
<td>0.958</td>
</tr>
<tr>
<td>Work Methods Autonomy</td>
<td>3</td>
<td>0.916</td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>3</td>
<td>0.933</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>2</td>
<td>0.685</td>
</tr>
<tr>
<td>Work Identity</td>
<td>2</td>
<td>0.819</td>
</tr>
<tr>
<td>Family Identity</td>
<td>2</td>
<td>0.908</td>
</tr>
<tr>
<td>Work-Family Separation Preference</td>
<td>4</td>
<td>0.885</td>
</tr>
<tr>
<td>Family-Work Separation Preference</td>
<td>4</td>
<td>0.884</td>
</tr>
<tr>
<td>Work-Family-Conflict</td>
<td>5</td>
<td>0.943</td>
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<tr>
<td>After-hours Electronic Communication Expectations</td>
<td>7</td>
<td>0.934</td>
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</tr>
<tr>
<td>Work-to-Family Technology Use²</td>
<td>4</td>
<td>0.944</td>
</tr>
</tbody>
</table>

Notes: ¹Scales containing excess items for validation purposes. ²Final version scales.

In order to reduce the overall number of scale items, remove lower quality items, and verify that WF and FW tech use were indeed separate constructs (rather than representing for example one more general technology use construct), I performed an exploratory factor analysis using all 26 initial scale items. In accordance with best practices (Costello & Osborne, 2005), I used a factor analysis rather than a principal components analysis. Whereas principal components analysis assumes no measurement error, factor analysis removes error variance and subsequently corrects item correlations. Given the relative normality of the data, I used maximum likelihood as the extraction method, again consistent with best practices (Fabrigar, Wegener, MacCallum, & Strahan, 1999). I used a scree plot to determine the number of factors to retain, in which the researcher keeps components above the inflection point of the eigenvalue plot. Finally, I used a direct oblimin oblique rotation to allow the factors to correlate as they are likely partially related (e.g., via a general propensity to use technology).
The scree plot is given in Figure 2.2 and revealed two factors as anticipated, explaining 47.67% and 19.91% of the variance, respectively. These factors were easily interpreted as WF and FW ICT use. The factor structure matrix can be found in Table 2.2 and includes four factors as the third and fourth yielded eigenvalues greater than one. However, the scree plot along with theoretical guidance used in the conceptualization of the scales suggests that these factors are not useful and should not be retained. Other models using different rotation and extraction methods conducted as a robustness check yielded similar results and are not presented. Based on these factor structures and a need for parsimony, four items were retained for each scale which had the most consistent factor loadings. For WF technology use, WF items 1, 3, 5, and 7 were retained. For FW technology use, FW items 2, 4, 7, and 9 were retained. These items are presented in Table 2.3. Alpha coefficients of these reduced-item scales were nearly identical to their 13-item counterparts and are also presented in Table 2.1.

2.5.3 Full Survey Analysis

2.5.3.1 Sample and Design

Based on the satisfactory results of the pilot data collection, I continued to primary data collection having made the changes in the survey noted above and with the additional change that the survey was split into two waves to help alleviate potential common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Participants were alumni of a human resources masters degree program and were invited to complete the survey via e-mail. Human resource managers are an ideal sample because their job requires frequent communication with other employees and tasks in the human resource management function are largely knowledge-based. Thus, the job functions of human resource managers are amenable to after-hours work via e-mail and cell phone communication because their institutional role is enacted through
knowledge work and communication (Kossek, Dass, & DeMarr, 1994). Based on the size of the email list, a reasonable but conservative estimate of the response rate is approximately 15%. However, it is impossible to know whether all e-mail addresses used are current and actively monitored. Though this response rate is a bit low, at about one standard deviation below the mean for web-based surveys, response rate is less important when representativeness is less important such as in this case when the sample was chosen primarily based on occupation (C. Cook, Heath, & Thompson, 2000).

Figure 2.2: Scree plot for work-family and family-work technology use items.
Table 2.2: Work-family and family-work technology use factor structure matrix.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
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<td>wftech1</td>
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<td>.453</td>
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<tr>
<td>wftech2</td>
<td>.839</td>
<td>.327</td>
<td>.078</td>
<td>.505</td>
</tr>
<tr>
<td>wftech3</td>
<td>.936</td>
<td>.369</td>
<td>.009</td>
<td>.323</td>
</tr>
<tr>
<td>wftech4</td>
<td>.869</td>
<td>.350</td>
<td>.047</td>
<td>.564</td>
</tr>
<tr>
<td>wftech5</td>
<td>.888</td>
<td>.312</td>
<td>-.208</td>
<td>.722</td>
</tr>
<tr>
<td>wftech6</td>
<td>.823</td>
<td>.389</td>
<td>-.042</td>
<td>.737</td>
</tr>
<tr>
<td>wftech7</td>
<td>.890</td>
<td>.252</td>
<td>-.197</td>
<td>.457</td>
</tr>
<tr>
<td>wftech8</td>
<td>.741</td>
<td>.354</td>
<td>.268</td>
<td>.445</td>
</tr>
<tr>
<td>wftech9</td>
<td>.799</td>
<td>.313</td>
<td>.026</td>
<td>.500</td>
</tr>
<tr>
<td>wftech10</td>
<td>.412</td>
<td>.209</td>
<td>.068</td>
<td>.717</td>
</tr>
<tr>
<td>wftech11</td>
<td>.726</td>
<td>.505</td>
<td>-.159</td>
<td>.636</td>
</tr>
<tr>
<td>wftech12</td>
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<td>.338</td>
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<td>.715</td>
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<td>.641</td>
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<td>.326</td>
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</tr>
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<td>fwtech2</td>
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<td>.867</td>
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<td>.134</td>
</tr>
<tr>
<td>fwtech3</td>
<td>.319</td>
<td>.813</td>
<td>-.055</td>
<td>.321</td>
</tr>
<tr>
<td>fwtech4</td>
<td>.364</td>
<td>.900</td>
<td>-.320</td>
<td>.290</td>
</tr>
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<td>fwtech5</td>
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<td>.731</td>
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<td>.399</td>
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<table>
<thead>
<tr>
<th>Item</th>
<th>Item Text</th>
<th>Retained?</th>
</tr>
</thead>
<tbody>
<tr>
<td>WF 1</td>
<td>...use technology to keep up with work matters while at home?</td>
<td>Yes</td>
</tr>
<tr>
<td>WF 2</td>
<td>...use technology to communicate with your workplace outside of normal work hours?</td>
<td></td>
</tr>
<tr>
<td>WF 3</td>
<td>...use technology to perform work tasks while at home?</td>
<td>Yes</td>
</tr>
<tr>
<td>WF 4</td>
<td>...respond to someone from work using technology to communicate with you when you're at home?</td>
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<tr>
<td>WF 5</td>
<td>...use technology to stay connected to your work no matter where you are?</td>
<td>Yes</td>
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<tr>
<td>WF 6</td>
<td>...use technology to stay connected to your work no matter what time it is?</td>
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<td>WF 7</td>
<td>...use technology to access information pertaining to work tasks while at home?</td>
<td>Yes</td>
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<td>WF 8</td>
<td>...experience interruptions at home from work-related communications?</td>
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<tr>
<td>WF 9</td>
<td>...provide status reports after working hours via technology?</td>
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<td>WF 10</td>
<td>...check for technology-based communications as soon as you got up in the morning?</td>
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<td>WF 11</td>
<td>...use technology to contact others in the organization to work on problems you learned about after typical working hours?</td>
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<td>WF 12</td>
<td>...actively check for messages using technology after typical working hours?</td>
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<td>WF 13</td>
<td>...use technology to immediately respond to work-related communications after typical working hours?</td>
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<td>FW 1</td>
<td>...use technology to keep up with family matters while at work?</td>
<td>Yes</td>
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<td>FW 2</td>
<td>...use technology to communicate with your family or friends during normal work hours?</td>
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<td>FW 3</td>
<td>...use technology to perform personal tasks while at work?</td>
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<td>...respond to a family member using technology to communicate with you when you're working?</td>
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<td>FW 5</td>
<td>...use technology to stay connected to your family no matter where you are?</td>
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<tr>
<td>FW 6</td>
<td>...use technology to stay connected to your family no matter what time it is?</td>
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<td>FW 7</td>
<td>...use technology to access information pertaining to your family while working?</td>
<td>Yes</td>
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<td>FW 8</td>
<td>...experience interruptions while working from family-related communications?</td>
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<td>FW 9</td>
<td>...check in with family during working hours via technology?</td>
<td>Yes</td>
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<tr>
<td>FW 10</td>
<td>...check for technology-based communications from family as soon as you get to work?</td>
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Table 2.3: Retained work-family and family-work technology use items

*In a typical month, to what extent do you...*
Human resource managers were chosen because of their status as having a heavily knowledge-based occupation with primary tasks amenable to ICT use as well as the availability of participants in this occupation. Based on this sample, results should be generalizable to other occupations with a core function based around knowledge management and a similar capacity for work to be performed or enhanced by the use of ICTs. Other occupations to which this research might be directly applicable would be general managers, software developers, or those in marketing or public relations. The degree these results are applicable and important to an employee in a particular occupation are contingent on that occupation’s tasks being performable via ICTs. Access to human resource managers was available through personal networks thus making the sample desirable from both a research design and data collection perspective. Additionally, this sample provided access to human resource managers across a variety of organizations, allowing for necessary variation in the key independent variable, after-hours communications expectations, which is based on organization-level perceptions.

In the primary sample, the survey was conducted in two waves in order to combat potential common method bias (Podsakoff et al., 2003). In addition to temporal separation of the measurement of the independent and dependent variables, I also ensured anonymity of responses and used measures with a variety of scale endpoints consistent with recommendations to minimize common method bias (Podsakoff et al., 2003). Wave 2, administered approximately
one month after Wave 1, contained scales for work-family conflict, emotional exhaustion, and turnover intentions while all others, described in detail below, appeared in Wave 1.

Wave 1 yielded 233 total respondents who were then invited to participate in Wave 2. Of these 233, 173 both participated in Wave 2 and could be matched to their Wave 1 data, resulting in an approximately 26% attrition rate. Pairwise correlations of all study variables reveal that Wave 2 participants were slightly less likely to work in the manufacturing industry. Finally, 30 participants were not employed in human resource management occupations. These 30 were dropped from the study as they may not be involved in knowledge-based work amenable to ICT use. The final sample size was 203, with 157 participants providing full data and 46 providing data for only Wave 1.

The final sample had an average age of 41. Of the participants, 53% were female, 68% were married, 71% had children under 18 at home, and 6% had elder care responsibilities. Participants worked on average 41.86 hours per week at the workplace and 10.3 hours per week at home. Finally, 43% worked in manufacturing and 30% worked in service industries. These demographics served as controls in all analyses, with “other” being the omitted category for industry.

2.5.3.2 Analytic Techniques

The study hypotheses were assessed using six single-stage ordinary least squares regression models. To establish mediation as described in Hypothesis 5, I followed Baron and Kenny’s (1986) four step procedure as well as Preacher and Hayes’ (2004) direct test of the indirect effect, described below. In order to establish mediation as defined by R. Baron and Kenny (1986), four conditions must be met. First, the independent variable must be shown to be related to the mediator. Second, the independent variable must also be shown to be related to
dependent variable. Third, the mediator must be shown to be related to the dependent variable. Finally, the relationship established in the second requirement must be reduced (to zero in the case of full mediation) upon introduction of the mediator into the equation.

Moderation, on the other hand, occurs when the strength of the relationship of two variables is dependent on a third (R. Baron & Kenny, 1986; Preacher, Rucker, & Hayes, 2007). Moderation is shown in the present study by including the product of the interacting variables in the model. The nature of these moderation effects is more clearly shown through simple slope plots. I calculate and plot simple slopes using techniques described by J. Cohen, Cohen, West, and Aiken (2003). Simple slopes are estimates of the relationship between the independent and dependent variable at one standard deviation below, one standard deviation above, and equal to the mean of the moderating variable and aid with the interpretation of moderation effects (J. Cohen et al., 2003). I also calculate the standard error of the slope at each of the three levels of the moderating variable and the resulting sample T statistic for difficult to interpret interaction effects.

Mediated moderation occurs when a moderation effect is mediated by another variable (Muller, Judd, & Yzerbyt, 2005). In order to establish mediated moderation, one shows that two variables have an interaction effect on a third dependent variable, and that this interaction is mediated by a fourth mediating variable (R. Baron & Kenny, 1986; Preacher et al., 2007). Mediation is typically assessed using the same Baron and Kenny four-step procedure outlined above, but using the interaction term as the key independent variable to be mediated.

An increasingly common critique of the Baron and Kenny (1986) mediation rules are that they do not require an empirical test of the total indirect effect. Preacher and Hayes (2004) provide reasons for the importance of this test. First, they explain that the coefficient of the
independent variable may become statistically insignificant with a very small reduction in magnitude upon the introduction of the mediating variable. Similarly, a practically large coefficient change may still be statistically significant, suggesting a lack of mediation. Second, they suggest that testing the difference between the direct and indirect effects is a more straightforward way of testing mediation.

One way to test the indirect effects is with the Sobel test, but the Sobel test assumes a normal distribution of the difference between the direct and indirect effects of the independent variable on the dependent variable. In fact, this difference is often not even symmetrical but rather positively skewed and kurtotic (Bollen & Stine, 1990; Lockwood & MacKinnon, 1998; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Preacher & Hayes, 2004; Preacher et al., 2007; Shrout & Bolger, 2002). Instead, Preacher and Hayes (2004) suggest using bootstrapping. Because indirect effects approach normality in larger samples, bootstrapping is even more strongly recommended for studies with smaller samples (Preacher et al., 2007).

Bootstrapping makes no assumptions about the sampling distribution of the indirect effects. It is a technique which takes a designated number of samples from the study sample, treating the study sample as its own population from which confidence intervals are constructed. Bootstrapping is therefore a resampling technique. The percentile-based confidence intervals generated by bootstrapping can be further adjusted to correct for bias (MacKinnon, Lockwood, & Williams, 2004; Preacher et al., 2007). The only major drawbacks of bootstrapping are computational power requirements and the fact that confidence intervals may change when bootstrapping is applied again as it uses random resamples (Preacher et al., 2007). These drawbacks are minor as modern computers have more than sufficient computational power and a large number of resamples provides a more stable confidence interval. To assess the indirect
effect posited in Hypothesis 5, I use bootstrapping with bias-corrected confidence intervals in addition to the more typical Baron and Kenny (1986) four step procedure. I use a relatively large number of resamples (5,000) to minimize differences in confidence intervals due to resampling.

A potential problem in the present study is common method bias (also known as common method variance). Common method bias occurs when participants’ responses are related due to similarities in the method in which they are collected rather than because of an underlying theoretical relationship (Podsakoff et al., 2003). Typically, this occurs in survey designs in which all measures are similarly structured. For example, the respondent’s mood may impact the way they answer items at a particular time, creating an undesirable correlation among psychological measurements (Podsakoff et al., 2003). It remains unclear whether common method bias is a substantial problem in organizational research as some argue its effect is typically not obtrusive (Lance, Dawson, Birkelbach, & Hoffman, 2010; Spector, 1987).

Still, I took numerous methodological precautions in the survey design, described above. In addition to techniques used in survey design to minimize common method bias, there also exist some techniques to test for the presence of common method bias within the data. These tests do not necessarily detect common method bias, however if they are failed then it is likely that common method bias is present and a significant source of variation in the measures. I conducted a Harman’s Single Factor test, which is frequently used to assess the extent of common method bias in a survey (Podsakoff et al., 2003). This test was conducted using exploratory factor analysis and items from all items collected in the survey, including those not used in the current study (17 scales in total). The test yielded 40 factors, 13 of which had an eigenvalue greater than 1 with the most variance explained by a single factor being 19.8%. These
results are consistent with a lack of substantial common method bias. While they do not
guarantee that it is not present, this test suggests that it is not problematic.

2.6 Results

Measure intercorrelations, reliabilities, and descriptive statistics can be found in Table
2.4. Correlations indicate that several of the demographic controls were related to WF ICT use as
expected, providing some justification for their inclusion in the regression models (Carlson &
Wu, 2012). WF ICT use is higher among older employees, married employees, and those with
children. It is also higher among those who report more FW ICT use, more autonomy, and higher
work identity. Women report higher work-family conflict while older employees reported less
emotional exhaustion. Work identity is also positively related to higher after-hours
communications expectations and work-family conflict. FW segmentation preferences are
positively related to WF segmentation preferences. Home work hours are unsurprisingly
positively related to after-hours communications expectations and WF ICT use.

Table 2.5 shows the results of the regression models. Hypothesis 1 stated that
segmentation preferences would be negatively related to work-family ICT use. Model 1 indicates
support for Hypothesis 1, as shown by the negative coefficient on the work-family segmentation
preferences variable ($\beta = -0.642; p<0.01$). Furthermore, in support of Hypothesis 2, Model 1 also
shows this negative coefficient becomes more positive at higher levels of after-hours electronic
communication expectations. This is shown by the positive and significant coefficient on the
interaction of after-hours communications expectations and work-to-family segmentation
preferences ($\beta = 0.152; p<0.05$). Thus, Model 1 shows that integrators are more likely to use ICTs
for work while at home than segmenters, but that this difference is smaller when after-hours
communications expectations are higher.
Hypothesis 3 stated that work-family ICT use would be positively related to emotional exhaustion under higher after-hours communications expectations, but negatively related to emotional exhaustion under lower after-hours communications expectations. In support of Hypothesis 3, Model 2 in Table 2.5 shows that the interaction of work-to-family ICT use and after-hours communications expectations was statistically significant and positive ($\beta=0.316; p<0.05$). Figure 2.3 provides a graphical representation of the simple slopes of the interaction so the nature of the effect can be more clearly interpreted. Table 2.6 shows the results of the simple slope analysis based on J. Cohen et al. (2003) and described above. In opposition to Hypothesis 3, at high levels of after-hours communications expectation, work-family ICT use was unrelated to emotional exhaustion as the slope was not statistically significantly different from zero ($T=0.62; p>0.05$). On the other hand, in support of Hypothesis 3, at low levels of after-hours communications expectations, greater work-family ICT use was associated with lower emotional exhaustion ($T=-2.28; p<0.05$). Overall, Hypothesis 3 was partially supported. Surprisingly, Model 2 also revealed an unhypothesized significant and negative main effect of after-hours communications expectations on emotional exhaustion ($\beta=-1.813; p<0.05$). This may be a result of controlling for multiple interactions involving after-hours communications expectations, and this finding is addressed in greater detail in the discussion and post-hoc analysis.

Hypothesis 4 stated that segmentation preferences are more positively related to emotional exhaustion when after-hours communications expectations are higher. Model 2 also tests this interaction and finds that it is statistically significant and positive, in support of Hypothesis 4 ($\beta=0.273; p<0.05$). Hypothesis 5 states that this interaction is partially mediated by work-family conflict. Models 3, 4, and 5 in Table 2.5 together test Hypothesis 5. According to Baron and Kenny (1986), several steps are necessary to establish mediation. The first step,
showing a relationship between the mediated variable and the dependent variable, is met by the support of Hypothesis 4 in Model 2, which shows that the interaction is related to emotional exhaustion. The second step is to show that the independent variable is related to the mediator. Model 3 regresses the interaction on work-family conflict, showing a positive and significant relationship ($\beta=0.285; p<0.01$), meeting the requirements of step two.

The nature of this interaction effect is shown graphically in Figure 2.4. Table 2.7 shows the tests of the associated simple slopes. The relationship between work-family segmentation preferences and work-family conflict is statistically significantly positive at high levels of after-hours communications expectations ($T=3.04; p<0.01$). The relationship is only marginally significant, but negative, at low levels of after-hours communications expectations ($T=-1.54; p<0.10$). This suggests that integrators experience little work-family conflict attributable to high after-hours communications expectations, but segmenters experience higher levels of work-family conflict under higher after-hours communications expectations. Additionally, in low after-hours communications expectations, there is a non-significant trend associating segmentation with lower work-family conflict.

Returning to the mediation of Hypothesis 5, the third step is to show that the mediating variable is related to the dependent variable without the independent variables present. Table 2.5, Model 4 shows that work-family conflict, without the presence of any interaction effects, is positively related to emotional exhaustion ($\beta=0.488; p<0.01$). This meets the criteria of step three. The fourth and final step of the mediation test is to show that the relationship between the independent variable (once again, the interaction of after-hours communications expectations and work-to-family segmentation preferences) and the dependent variable (emotional exhaustion) is reduced upon inclusion of the mediating variable. This relationship was reduced to
non-significance in Model 5 ($\beta=0.140; p>0.05$), consistent with full rather than partial mediation. Thus Hypothesis 5 was partially supported; the interaction of after-hours communications expectations and work-to-family segmentation preference on emotional exhaustion was fully mediated by work-family conflict. Segmenters experienced higher work-family conflict under higher after-hours communications expectations, and this fully accounted for the similar relationship between segmentation preferences, after-hours communications expectations, and emotional exhaustion.

To confirm this effect, as discussed above in the analytical strategy section, it is important to test the statistical significance of the indirect relationship between the independent variable and the dependent variable (Preacher & Hayes, 2004). The results of this test are shown in Table 2.8. If the confidence interval does not include zero, then the indirect effect is statistically significant at the 5% level. Bias-uncorrected bootstrapped standard errors are provided for comparison, and the uncorrected normal-based confidence interval does include zero. The more accurate percentile, bias-corrected, and accelerated bias-corrected confidence intervals on the other hand do not include zero, providing further support for the mediation described in Hypothesis 5.

Finally, Hypothesis 6 predicted that emotional exhaustion would be positively related to turnover intentions. Controlling for work-family conflict as well as all other previously mentioned relationships, Model 6 in Table 2.5 shows that the coefficient for the hypothesized relationship is positive and statistically significant ($\beta=0.342; p<0.01$), supporting Hypothesis 6. Figure 2.5 below shows the theoretical model presented in Figure 2.1, but revised to be consistent with the empirical relationships supported in the present study. Specifically, the partial mediation proposed in Hypothesis 5 is represented as full rather than partial mediation.
Table 2.4: Measure intercorrelations, alphas, means, and standard deviations

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</table>

Mean: 0.43, 0.30, 10.30, 41.86, 41.46, 0.68, 0.71, 0.06, 0.53, 4.12, 3.39, 4.15
Sd: 0.46, 0.46, 10.94, 13.45, 13.08, 0.47, 1.01, 0.24, 0.50, 1.01, 1.13, 0.76
### Table 2.4 (cont’d)

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<td>18. Emotional</td>
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<td>19. Turnover</td>
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<td>0.07</td>
<td>0.24*</td>
<td>0.11</td>
<td>0.19*</td>
<td>0.48*</td>
<td>0.94</td>
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<td>20. WFC</td>
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<td>0.03</td>
<td>0.32*</td>
<td>0.45*</td>
<td>0.27*</td>
<td>0.93</td>
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<td>3.49</td>
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<td>1.45</td>
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**Notes:**
- *p<0.05
- Alphas on diagonal
- AECE=After-hours electronic communications expectations
Table 2.5: Regression models

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>WF ICT Use</td>
<td>Emotional Exhaustion</td>
<td>WF Conflict</td>
<td>Emotional Exhaustion</td>
<td>Emotional Exhaustion</td>
<td>Turnover Intentions</td>
</tr>
<tr>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
</tr>
<tr>
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<tr>
<td>Service</td>
<td>-0.311</td>
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<td>-0.586*</td>
<td>0.286</td>
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<td>0.203</td>
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<td>Work hours at home</td>
<td>0.029</td>
<td>0.008</td>
<td>0.048**</td>
<td>0.016</td>
<td>0.018</td>
<td>0.011</td>
</tr>
<tr>
<td>Work hours at work</td>
<td>0.000</td>
<td>0.007</td>
<td>0.025</td>
<td>0.013</td>
<td>0.011</td>
<td>0.009</td>
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<td>Age</td>
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<td>0.397</td>
<td>0.240</td>
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<td>0.171</td>
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<tr>
<td>Work-family ICT use</td>
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<td>-</td>
<td>-0.960**</td>
<td>0.341</td>
<td>-0.056</td>
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<tr>
<td>Family-work ICT use</td>
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<td>0.057</td>
<td>0.120</td>
<td>0.107</td>
<td>0.067</td>
<td>0.077</td>
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<td>-0.161</td>
<td>0.149</td>
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<td>0.200</td>
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<td>Family identity</td>
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<td>0.121</td>
<td>-0.246**</td>
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<td>Work-family segmentation preference</td>
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<td>-0.428</td>
<td>0.396</td>
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Table 2.5 (cont’d)

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
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</thead>
<tbody>
<tr>
<td>B</td>
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<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
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<tr>
<td>AECE</td>
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<td>0.269</td>
<td>-1.813</td>
<td>0.879</td>
<td>-0.715</td>
<td>0.624</td>
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<td>0.069</td>
<td>0.273*</td>
<td>0.133</td>
<td>0.285**</td>
<td>0.095</td>
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<tr>
<td>AECE x Work-family tech use</td>
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<td>-</td>
<td>0.316*</td>
<td>0.140</td>
<td>0.001</td>
<td>0.100</td>
</tr>
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<td>Work-family conflict</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.488**</td>
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<tr>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.472**</td>
</tr>
<tr>
<td>Constant</td>
<td>2.476*</td>
<td>0.971</td>
<td>8.355**</td>
<td>2.426</td>
<td>3.561*</td>
<td>1.725</td>
</tr>
<tr>
<td>R²</td>
<td>0.623</td>
<td>0.409</td>
<td>0.372</td>
<td>0.449</td>
<td>0.474</td>
<td>0.356</td>
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<tr>
<td>Adjusted R²</td>
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<td>0.316</td>
<td>0.273</td>
<td>0.367</td>
<td>0.385</td>
<td>0.242</td>
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Notes:  *p≤0.05;  **p≤0.01;  
Omitted category for industry: Other  
AECE=After-hours electronic communications expectations
Figure 2.3: Simple slopes of the after-hours electronic communications expectations and work-family ICT use interaction on emotional exhaustion

Table 2.6: Simple slope coefficients and statistical significance for Figure 2.3

<table>
<thead>
<tr>
<th>Level of AECE $^1$</th>
<th>Slope</th>
<th>Slope SE</th>
<th>T</th>
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</thead>
<tbody>
<tr>
<td>3.608</td>
<td>0.16</td>
<td>0.26</td>
<td>0.62</td>
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<tr>
<td>2.76</td>
<td>-0.07</td>
<td>0.74</td>
<td>-0.09</td>
</tr>
<tr>
<td>1.912</td>
<td>-0.30</td>
<td>0.13</td>
<td>-2.28</td>
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</tbody>
</table>

Notes: $^1$ Values represent one standard deviation above the mean, at the mean, and one standard deviation below the mean.

AECE=After-hours electronic communications expectations

Figure 2.4: Simple slopes of the after-hours electronic communications expectations and work-family segmentation preferences interaction on work-family conflict
Table 2.7: Simple slope coefficients and statistical significance for Figure 2.4

<table>
<thead>
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<th>Level of AECE</th>
<th>Slope</th>
<th>Slope SE</th>
<th>T</th>
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</thead>
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<tr>
<td>3.608</td>
<td>0.35</td>
<td>0.11</td>
<td>3.04</td>
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<tr>
<td>2.76</td>
<td>0.10</td>
<td>0.43</td>
<td>0.24</td>
</tr>
<tr>
<td>1.912</td>
<td>-0.14</td>
<td>0.09</td>
<td>-1.54</td>
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Notes: \(^1\) Values represent one standard deviation above the mean, at the mean, and one standard deviation below the mean.
AECE=After-hours electronic communications expectations

2.7 Discussion

Model 2 shows that those who prefer to keep work out of the family domain use ICTs less for work purposes while at home, but that organizational pressure in to stay electronically connected to the workplace in the form of perceived after-hours communications expectations can overpower this preference. Previous literature has used organizational pressure as a predictor of ICT use (Fenner & Renn, 2010), but an alternative interpretation is to treat it as a moderator of the relationship between ICT use and stress outcomes. The support of this interpretation suggests that after-hours communications expectations may be functioning as a job demand by pressuring employees to use ICTs more for work purposes while at home. For segmenters especially, this can be problematic. The potentially resulting mismatch between work-family segmentation preferences and actual work-family segmentation practices is the root of several undesirable outcomes in following models.

One such outcome is shown in Figure 2.4: integrators' role conflict and emotional exhaustion is largely unrelated to after-hours communication expectations. Those employees one standard deviation below average on work-to-family segmentation preferences showed no discernible difference in work-family conflict regardless of the level of after-hours communications expectations they perceived. Segmenters, on the other hand, experience higher levels of work-family conflict when after-hours communications expectations are higher, but not
when they are lower. The data suggest that work-family segmentation preferences are associated with lower work-family conflict in low after-hours communications expectation environments, but the simple slope of this relationship is only marginally significant in a one-tailed test. These results are consistent with the explanation that a mismatch between after-hours communications expectations and work-family segmentation preferences is experienced as a job demand in the form of role conflict, which consequently is related to higher emotional exhaustion.

Unexpectedly, the interaction between work-to-family segmentation preferences and emotional exhaustion was fully rather than partially mediated by work-family conflict. This may be due to Model 4 controlling for the interaction between after-hours communications expectations and work-family ICT use, which was theorized to also capture the role of after-hours communications expectations as a work pressure job demand. Consistent with this explanation, the interaction between work-family ICT use and after-hours communications expectations was unrelated to work-family conflict but directly related to emotional exhaustion. Despite the unexpected full mediation, the pattern of these interactions together supports the interpretation that after-hours communications expectations function as a job demand in multiple ways: they create work pressure, and for segmenters, they also create role conflict.
Table 2.8: Bias-corrected bootstrap test of indirect effects of interaction between work-family separation preferences and after-hours electronic communications expectations on emotional exhaustion, through work-family conflict

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Mediating Variable</th>
<th>Dependent Variable</th>
<th>Observed Coefficient</th>
<th>Bias</th>
<th>Bootstrapped SE</th>
<th>95% Confidence Internal</th>
<th>Confidence Internal Type</th>
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<td>Work-family segmentation preference by after-hours</td>
<td>Work-family conflict</td>
<td>Emotional exhaustion</td>
<td>0.135</td>
<td>N/A</td>
<td>0.072</td>
<td>-0.007</td>
<td>Normal-based</td>
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<td></td>
<td>0.012</td>
<td>0.072</td>
<td>0.034</td>
<td>Percentile</td>
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<td></td>
<td></td>
<td></td>
<td>0.031</td>
<td>0.023</td>
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<td></td>
<td></td>
<td></td>
<td>accelerated</td>
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</table>

Notes: 1 5,000 replications were used.  
2 Normal-based confidence intervals do not account for bias and are provided for comparison.

Figure 2.5: Empirically supported model

![Empirically supported model diagram](image-url)
Still, the results suggest that after-hours communications expectations, work-family ICT use, and work-family segmentation preferences may have a more complex relationship than hypothesized. According to Model 2 and the simple slope analysis shown in Figure 2.3 and Table 2.6, there was a negative main effect of after-hours communications expectations on emotional exhaustion, which became more positive as work-family ICT use increased. This surprising finding may not be of practical concern given that low levels of work-family ICT use are unlikely in high after-hours communications expectation climates. Regardless, this relationship is counter to the study predictions because low ICT users in higher after-hours communications expectations appear to experience lower levels emotional exhaustion. This finding may be due to controlling for the interaction of after-hours communications expectations and work-family segmentation preferences in the same model. However, given that this interaction was also statistically significant, it should not be excluded from analyses and one interaction should not be interpreted without considering the other. Instead, it may be the case that these three variables interact together, and accounting for this interaction might facilitate a clearer interpretation of the pattern of results.

To make sense of this issue, I conducted a post-hoc exploratory analysis, adding the three-way interaction between work-family ICT use, after-hours communications expectations, and work-to-family segmentation preferences to the emotional exhaustion model. This model is shown in Table 2.9. Figure 2.6 shows the simple slopes for the three-way interaction, which is statistically significant in the regression model (β=0.404; p<0.05). Table 2.10 provides Bonferroni-corrected tests of the differences between the simple slopes, as recommended by Dawson and Richter (2006). The Bonferroni correction is a conservative correction for post-hoc comparisons of simple slopes. Despite the conservative correction, there is a significant
difference between the relationship of work-to-family ICT use and emotional exhaustion for segmenters in high and low after-hours communications expectation climates. For segmenters in organizations with high after-hours communications expectations, more work-to-family ICT use is associated with more emotional exhaustion. For segmenters in organizations with low after-hours communications expectations, more work-family ICT use is associated with lower emotional exhaustion.

This finding suggests that unpressured use of ICTs for work purposes at home may be beneficial even for segmenters. Though the survey questions were designed to assess technology based integration of the work role into the family domain, it may be the case that segmenters used ICTs for work purposes at home to allow themselves to mentally disengage from work, and that this usage was also captured by the work-family ICT use measure. For example, a segmenter might find more comfort at home knowing that he/she can be reached in the case of a work emergency, or knowing that there are no critical e-mails awaiting a response. In this way, technology can provide justification to mentally disengage from work while at home. In at least one qualitative study, employees were shown to be able to use ICTs to help segment work and family roles (Golden & Geisler, 2007). Further research will be needed to better understand how segmenters and integrators use ICTs differently and whether this is related to individual characteristics such as personality or family demands.
Table 2.9: Post-hoc regression analysis with three-way interaction

<table>
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<tr>
<th>Dependent variable:</th>
<th>Emotional Exhaustion</th>
</tr>
</thead>
<tbody>
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<td>B</td>
</tr>
<tr>
<td>Manufacturing (^1)</td>
<td>-0.464</td>
</tr>
<tr>
<td>Service (^1)</td>
<td>-0.529</td>
</tr>
<tr>
<td>Work hours at home</td>
<td>0.049 (^*)</td>
</tr>
<tr>
<td>Work hours at work</td>
<td>0.025 (^*)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.026 (^*)</td>
</tr>
<tr>
<td>Married</td>
<td>-0.156</td>
</tr>
<tr>
<td>Kids</td>
<td>-0.032</td>
</tr>
<tr>
<td>Elder care</td>
<td>-0.414</td>
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<tr>
<td>Female</td>
<td>0.427</td>
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<tr>
<td>Work-family ICT use</td>
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<tr>
<td>Family-work ICT use</td>
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</tr>
<tr>
<td>Autonomy</td>
<td>-0.140</td>
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<tr>
<td>Work identity</td>
<td>-0.012</td>
</tr>
<tr>
<td>Family identity</td>
<td>-0.106</td>
</tr>
<tr>
<td>Work-family segmentation preference</td>
<td>3.507 (^*)</td>
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<tr>
<td>Family-work segmentation preference</td>
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</tr>
<tr>
<td>AECE(^2)</td>
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</tr>
<tr>
<td>AECE(^2) x Work-family separation preference</td>
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<td>Work-family ICT use x AECE(^2)</td>
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</tr>
<tr>
<td>Work-family segmentation preference x AECE(^2) x Work-family ICT use</td>
<td>.404 (^*)</td>
</tr>
<tr>
<td>Constant</td>
<td>-8.316</td>
</tr>
<tr>
<td>R(^2)</td>
<td></td>
</tr>
<tr>
<td>Adjusted R(^2)</td>
<td></td>
</tr>
</tbody>
</table>

Notes: \(^*\)p≤0.05; \(^*\)p≤0.01

\(^1\)Omitted Category: Other industries
\(^2\)After-hours electronic communications expectations
Figure 2.6: Three-way interaction of work-family technology use, work-family separation preferences, and after-hours electronic communications expectations on emotional exhaustion

![Three-way interaction graph]

Note: AECE=After-hours electronic communications expectations

Table 2.10: Bonferroni-corrected simple slope comparisons for three-way interaction of work-family technology use, work-family separation preferences, and after-hours electronic communications expectations on emotional exhaustion

<table>
<thead>
<tr>
<th>Pair of slopes Compared</th>
<th>p</th>
<th>Bonferonni Corrected p</th>
</tr>
</thead>
<tbody>
<tr>
<td>High AECE/High WF Seg. (1)</td>
<td>High AECE/Low WF Seg. (2)</td>
<td>0.133</td>
</tr>
<tr>
<td>High AECE/High WF Seg. (1)</td>
<td>Low AECE/High WF Seg. (3)</td>
<td>0.002</td>
</tr>
<tr>
<td>High AECE/High WF Seg. (1)</td>
<td>Low AECE/Low WF Seg. (4)</td>
<td>0.220</td>
</tr>
<tr>
<td>High AECE/Low WF Seg. (2)</td>
<td>Low AECE/High WF Seg. (3)</td>
<td>0.754</td>
</tr>
<tr>
<td>High AECE/Low WF Seg. (2)</td>
<td>Low AECE/Low WF Seg. (4)</td>
<td>0.314</td>
</tr>
<tr>
<td>Low AECE/High WF Seg. (3)</td>
<td>Low AECE/Low WF Seg. (4)</td>
<td>0.291</td>
</tr>
</tbody>
</table>

Note: AECE=After-hours electronic communications expectations
Considering the study results and the exploratory analysis, integrators seem to fare better than segmenters all-in-all in a knowledge-based work environment. Though segmenters exhibit similar levels of emotional exhaustion and work-family conflict as integrators when after-hours communications expectations are lower, they experience more role conflict than integrators when after-hours communications expectations are higher. This is evidence that the reason for work-family ICT use is the key to its relationship with employee well-being; segmenters look more like integrators in their ICT usage patterns when after-hours communications expectations are high, but only they experience undesirable outcomes. Similarly, segmenters and integrators both appear to benefit from higher work-family ICT use when after-hours communications expectations are lower. The worst (i.e. least desirable) outcomes are for segmenters with high levels of work-family ICT use in climates of higher after-hours communications expectations.

Taking into account the post-hoc analysis, in no case are higher after-hours communications expectations beneficial to employees' well-being. Organizations can help reduce stress and potential turnover of employees by allowing them to use ICTs to manage their work-family roles at their preference rather than pressuring them to use ICTs in a certain way. Alternatively, employers who value constant connectivity should strive to hire integrators and let them integrate their roles naturally rather than through organizational pressure. Organizations that pressure employees to use technology for work purposes in the family domain risk creating additional job demands of work pressure and role conflict, which are ultimately linked to greater emotional exhaustion and turnover intentions. Another potential solution for employers that value constant connectivity is to allow employees to work more from home and reduce workplace hours. Though work-family segmenters will still suffer when after-hours communications expectations are higher, they may be able to better manage their conflicting
demands with the additional temporal boundary control. For example, work-family segmenters may be able to chunk their time into work and family blocks more efficiently when they can work from home.

These recommendations may not apply to employees in jobs that do not primarily require knowledge work or are more constrained by outside forces beyond the organization’s control. For example, police officers and doctors may be in constant connectivity to their employers, especially while on call, because the nature of the job requires someone to always be working. In these cases, some degree of control is likely necessary for successful completion of job tasks and organizational success. Despite this, work-family segmenters may still fare more poorly than integrators on average in terms of stress outcomes in any job which requires more work-family ICT use. More research is needed to understand whether the effect of expectations are less detrimental to employee well-being when employees understand that integration is in the nature of the job and that communication expectations are not a function of the organizational culture. Similarly, whether segmenters self-select into jobs which do not require such integration remains an empirical question.

2.8 Limitations and Conclusions

The study suffers from a few limitations. One potential limitation is that the data was collected from a single source using a survey design. Thus, common method bias may account for relationships between study variables (Podsakoff et al., 2003). But, there is little evidence that this was problematic. Several precautions were taken to avoid common method bias, including a two-wave design and varying scale end points. Additionally, as discussed above, a Harmon’s Single Factor test failed to find evidence of substantial common method bias. On a related note, the sample included two waves but cannot be considered longitudinal. More
research is needed to understand whether technology-based interruptions are time sensitive as research suggests that boundary management preferences may vary over time (Kossek & Lautsch, 2012; Kossek et al., 2012). More research is also needed to examine whether the direction of ICT use (work-family or family-work) affects employees differently. For example, work-family ICT use may be less exhausting for those who can compensate with family-work ICT use as well.

The sample was also relatively small, though this only makes the tests of the hypotheses more conservative. It does however prevent the use of more sophisticated analytical techniques such as structural equation modeling. While such a technique would have helped account for measurement error in the study, the high alphas suggest that measurement error was not problematic. Additionally, the sample consisted solely of highly educated HR managers. Though this may be fairly representative of knowledge-based occupations, researchers should be cautious applying the results to other types of occupations, especially those in which work is less amenable to being performed via ICTs.

Another limitation is that the three-way interaction of key study variables was not formulated *a priori* but rather in response to a surprising finding. Though the slope comparisons were Bonferroni-corrected, future research should consider this complex relationship carefully. Finally, a potential problem is that a person’s segmentation preferences may affect their likelihood to perceive an organization as having high after-hours electronic communications expectations. The correlation matrix in Table 2.4 suggests though that this is not the case.

Future research should seek to better understand what individual differences impact the way individuals use and experience technology for work purposes at home. In addition to work-family technology use, researchers should investigate family-work technology use, i.e. the use of
ICTs to meet family demands while in the work domain. Because of its potential impact on work, family-work ICT use warrants greater research attention and is likely closely related to work-family ICT use. Future studies should also consider more complex patterns of segmentation preferences, as some studies suggest that segmentation and integration do not fall on a continuum and other work-family boundary management styles are possible (Kossek & Lautsch, 2012). Similarly, future research should examine how after-hours communications expectations are related to broader employee perceptions of boundary control.

Despite these limitations and unanswered questions, the study supports the idea that information and communicative technology is a tool that can either help or hinder employee well-being depending on the circumstances of its use. Generally, there are no benefits associated with higher after-hours electronic communications expectations, and results were consistent with their interpretation as a job demand in the form of work pressure and source of role conflict. Integrators were largely immune to the undesirable effects of these job demands. In order to prevent emotional exhaustions and associated turnover intentions, employers should encourage employees to stay technologically connected to their workplace without making it an expectation or requirement, or they should allow employees greater flexibility in working time and location so as to lessen conflict with the family role.
3 Filling the Childcare Gap: Work-Family Practices and Turnover in Germany

3.1 Introduction

The previous study examines an informal aspect of the way organizations respond to employee work-family needs. It uses information and communicative technology as a lens through which to examine the influence of organizational culture on employee work-family role management and stress outcomes. The study presented in this chapter examines the issue of the organizational work-family response from a much different perspective. Rather than assessing employee-level outcomes, it assesses establishment-level outcomes. Rather than examining informal culture, it examines formal human resource management programs.

Although the second study is quite different in scope, it builds upon the first. The second study highlights the variety and complexity involved in the rationale behind an organization’s work-family policy decisions, including elements of public policy environment, employee demands, and organizational human resource management strategy. It also shows the depth of consequences for an establishment’s work-family practices; while the previous study measured individual level turnover intentions, this study measures actual turnover at the establishment level.

Importantly, the second study also highlights the role of national context in determining an appropriate work-family policy or practice (Berg, Kossek, Baird, & Block, 2013; Den Dulk, Groeneveld, Ollier-Malaterre, & Valcour, 2013; Ariane Ollier-Malaterre, Valcour, Den Dulk, & Kossek, 2013; Piszczek & Berg, forthcoming). Thus, it is appropriate to begin with a discussion of the contextual issues relevant to this study, which utilizes a large sample of German establishments. The next section introduces the government-run public childcare system in Germany and demonstrates how it has created an opportunity for establishments to benefit from
a different way of responding to employees’ work-family needs, namely by offering childcare practices of their own.

3.2 **Germany and the Business Case for Childcare**

The German government has a federal ministry with an explicitly outlined responsibility to serve the family role. Historically, family policy in German has been supportive of traditional gender roles when it comes to work and family, with women abstaining from work in order to raise children (Abrahamson, 1999; Institute for Child and Family Policy, 2008). A woman who does not provide full-time care to her children might be criticized as a *Rabenmutter*, literally translated as “raven mother,” for metaphorically pushing her chicks out of the nest in order to work (Bennhold, 2010). Some research suggests that the decision by approximately one third of women in Germany not to have children is due to difficulty balancing work and family as many women do want careers (Peus, 2006). Other research has argued that Germany’s past daycare policies made it difficult for women to participate in the labor market (Hank & Kreyenfeld, 2003; Kreyenfeld & Hank, 2000). Faced with decreasing fertility rates and a potential population decline, Germany has both reassessed its family policy and begun a push for labor force participation of women out of concern that the current economy may be unsustainable without them. As a result, more and more mothers are seeking employment.

With the slowly changing cultural norms and assessment of the labor market, Germany has simultaneously experienced growing demand for childcare over the past decade. The German government provides public daycare, but it has not been able to keep up with demand from parents as childcare grows more socially acceptable, especially for younger children. Furthermore, even for older children, government provisions are limited to three morning hours for children aged three to six in most kindergartens. In 2004, 90% of children aged three to six were enrolled in such programs (OECD, 2004). Children under 3 have been much less likely to
be in government-provided childcare services, with only 8.5% participation in 2002 (OECD, 2004). The *Rabenmutter* stigma applies more harshly to mothers of young children. Even for older children, however, school typically ends at lunch time.

This is in part due to societal pressure to avoid daycare for young children, but the supply of early childhood care is still insufficient. As the government has enacted policies seeking to keep women in the workforce, the stigma of the *Rabenmutter* has been in decline. Data suggest that, despite the stigma associated with being a working mother of a young child, many mothers would use government childcare services if they were available. One study estimated that in 2005 approximately 50% of children under three and 10% of those between ages four and six were wait-listed for publically subsidized childcare (Wrohlich, 2005), indicating a strong unmet demand for public childcare among working mothers. This may be the case especially for young mothers, as the proportion of female college graduate and labor market entrants grows. The lack of childcare for children under 3 and lack of flexibility in childcare options for older preschool children have made it difficult for parents—primarily women—to maintain full time jobs.

Because of the incompatibility of full-time employment and existing public childcare systems, many parents (mothers in particular) find these systems to be inadequate. Most women report having a hard time finding adequate childcare options (Bundesministerium fuer Familie, Senioren, Frauen und Jugend, 2007). According to 2010 government data, about two thirds of women take advantage of out-of-home child care services for at least part of their regular child care needs, and 53% of young mothers reported that they would take a public day-care spot if one were available (Bundesministerium fuer Familie, Senioren, Frauen, 2010).

In response to this demand, the German government has acted in two primary ways. One way is to provide allowances for parents taking care of children. Parents are entitled to *Kindergeld*, which consists of flat monthly payments ranging between 184-215 Euros per child
depending on how many children are in the household, granted until age 18 (or 25 if the child is involved in an apprenticeship) (Bundesministerium fuer Familie, Senioren, Frauen, 2013b). In 2007, Germany began the *Elterngeld* parental work leave program, which provides up to 1,800 Euros per month up to 14 months divided between both parents (or fully for an unmarried parent) with a maximum of 12 months per parent (Bundesministerium fuer Familie, Senioren, Frauen, 2013a). In 2007 and 2008, 87% of mothers claimed the maximum 12 months (Boettcher & Krieger, 2008). In 2013, new legislation resulted in another monthly subsidy called *Betreuungsgeld* to care for one’s own young child aged one or two at home and abstain from using government daycare services (Bundesministerium fuer Familie, Senioren, Frauen, 2013c). These practices may help ease the burden on the public system, but critics argue that *Betreuungsgeld* dissuades labor market participation of women. They argue that it instead encourages a male breadwinner model in which women stay home to raise children, taking the subsidy rather than enrolling their young children in public daycare and continuing to work (Hawley, 2012; Heidenreich, 2013).

The second strategy utilized by the government and arguably more conducive to the labor force retention of mothers was to expand public daycare systems. The government passed the Childcare Expansion Act in 2005 which created more public daycare spots, tripling them over the course of several years. But in 2010, the demand for early childhood education was still growing and remained unmet (The Local, 2010). More recently, public daycare has been opened to children as young as one year old (as opposed to three), but in 2013, the government estimates there is still a shortage of 220,000 childcare spots for young children (Pauls, 2013). This shortage is in part responsible for the introduction of *Betreuungsgeld*, which is expected to reduce demand for daycare spots but at the potential risk of female labor force participation.
The subject of publically provided and subsidized childcare continues to be a controversial issue in Germany as values adapt to labor market demographic shifts resulting from low fertility rates and increasing proportions of female college graduates looking for work. While the government continues to seek solutions, there is another viable option for addressing childcare needs. The high demand for childcare and lack of sufficient public childcare options in Germany offers German establishments an opportunity to fill this gap by offering practices such as onsite childcare or subsidies for private childcare. These practices, whether in the workplace of the mother or the father, allow for both parents to remain active in the work role after the birth of a child. This may also help with low fertility rates considering that, as mentioned above, research suggests many women that choose not to have children do so because they want to be more successful at work. These types of childcare in which the parents retain some physical proximity to their children during working hours may also be more socially acceptable to the general public, potentially diminishing the Rabenmutter stigma. They are also easier on employees than public daycare options because they reduce commuting time, are more likely to be flexible around working hours, and may allow parents to easily see their children during working time if necessary.

Some companies have already taken note of the potential benefits of onsite childcare facilities; major corporations Bayer, BASF, and Volkswagen all have childcare centers of varying levels of coverage for employees (BASF, 2013; Bayer, 2013; Stolz, 2010). Siemens similarly has day care centers near its production sites noting that women make up 21% of its staff but 34% of its new recruits (Bennhold, 2010). At least one private consulting organization, Department of Tomorrow, is attempting to actively promote corporate social responsibility in other German companies by helping them establish onsite daycare centers. As stated by one of its consultants, Dominik Schmengler, “Employees have to work a lot, but there is the family they
want to take care of and there’s a demand by the society to find a solution. How can we fit both
demands together? And the political answers are not enough at the moment” (Pauls, 2013).
Schmengler also mentions that practices such as these are a “pull factor” in attracting good
employees.

This conventional wisdom is in fact consistent with academic theory. In addition to
helping employees with families from a humanistic perspective, strategic human resource
management (HRM) theory suggests that establishments can also benefit from employee-friendly
work-family practices concerning childcare. The strategic HRM literature argues that HRM
practices can help organizations generate a sustainable strategic advantage over their competitors
(Delery & Doty, 1996; Huselid, Jackson, & Schuler, 1997; Huselid, 1995; Offstein, Gnyawali, &
Cobb, 2005). Such practices typically include compensation systems, training programs, or
performance review programs which are more directly linked to employee performance (Becker
& Huselid, 1998; Combs, Liu, Hall, & Ketchen, 2006; Evans, 2005; Gittell, Seidner, &
Wimbush, 2010). When employee performance is increased in aggregate, the organization reaps
the benefits of increased effectiveness or productivity. Research, discussed below, suggests that
work-family practices (WFPs) like onsite or subsidized childcare may also help organizational
performance, albeit less directly.

WFPs are organizational practices that allow employees to better manage potentially
competing work and family demands (Kossek & Michel, 2011) and are thought to have strategic
value through increasing employee attraction to and retention in organizations (Carless &
Wintle, 2007; Honeycutt & Rosen, 1997; Kossek & Nichol, 1992; B. Lee & DeVoe, 2012; Rau
& Hyland, 2002; Richman et al., 2008). WFPs come in many different forms, though in thus
study I focus on childcare-related practices due to their importance in the German context. Other
types of practices may not function the same way in this context, whereas childcare-related
practices similarly may not function the same way in other contexts where public childcare is less in demand.

Though strategic HRM studies show a consistent link between human resource practices and organizational performance, including WFPs, these studies suffer from an inability to make causal inferences. This issue remains largely unresolved in the literature and poses a threat to its fundamental argument that HRM practices can increase organizational performance. As will be discussed below, some researchers plausibly argue that better-performing organizations may be better positioned to offer more employee-friendly HRM practices (Huselid & Becker, 1996; Wright, Gardner, Moynihan, & Allen, 2005). This issue remains largely unresolved in the broader strategic HRM literature, and research that accounts for this issue is even rarer in the domain of work-family HRM practices. Thus the goals of the present study are to first examine whether the offering of childcare-focused WFPs is associated with lower levels of turnover in German establishments, and second to do so using an analysis that provides a clearer understanding of the nature of this relationship.

Regarding the first goal, examining the strategic value of WFPs is becoming increasingly important. As organizations compete more globally and labor market demographics shift, the strategic HRM literature must generate richer contextual analyses in order to bring research in line with current business needs and expand theory to accommodate environmental factors that may affect HRM strategy formulation and effectiveness (Kaufman, 2010). Similarly, work-family researchers have called for richer contextualization and theorization at the national level (Ariane Ollier-Malaterre et al., 2013). Regulative institutions such as public policy can impact whether and to what extent certain HRM practices are offered as well as the extent of their strategic value (Berg et al., 2013; Piszczek & Berg, forthcoming). Though the strategic HRM literature and the broader work-family literature include many international studies, many of
them do not fully explore the contextual influences of the regulative and cultural environment on the strategic effectiveness of certain HRM practices. I discuss how legal benefits and culturally-driven demand surrounding childcare affect the potential strategic effectiveness of HRM practices and the generalizability of the results of the present study to establishments in other countries.

Regarding the second goal, the present study’s unique analysis provides more insight into the nature of the relationship between strategic HRM practices and organizational outcomes. As I explain in greater detail below, it is unclear whether organizations that adopt strategic HRM practices experience a subsequent increase in organizational performance or better-performing organizations are more likely to adopt strategic HRM practices. I examine the relationship between the presence of childcare practices both between establishments, and also within single establishments as their own childcare practice offerings change over time. Though this analytic technique does not solve it, it provides some insight into the causality controversy and eliminates several potential theoretical explanations for relationships observed in strategic HRM research.

This study also provides several empirical contributions, above and beyond being one of the few to examine WFPs from a strategic HRM perspective and address the issue of causal direction. First, the study provides a more generalizable analysis of the relationship between establishment childcare practices and turnover. Studies with large, multi-industry samples are needed to provide a more balanced perspective on the prevalence and strategic effectiveness of WFPs, particularly childcare which has received relatively little research attention compared to more common WFPs like flextime. I use data from a nationally representative annual panel dataset of approximately 16,000 German establishments collected by the German government Institute for Labor Market and Occupational Research (IAB) which includes information about childcare offerings. Second, the study splits the variation in the dependent variable—turnover—
into within and between establishment components. This allows for a clearer empirical understanding of the source of turnover’s variation and separates the issue of which establishments offer childcare practices from childcare practices’ relationship to employee turnover. Third, I am able to examine employee turnover by gender. Given the cultural pressure for women to take time off work to care for their children in their first years and the increasing female labor force participation rates in Germany, WFPs may work differently for men and women. Finally, most studies examining the strategic value of WFPs do not measure actual turnover at the organization level but rather turnover intentions at the employee level. I use an establishment-level measure of actual turnover as the key dependent variable. The next section provides a discussion of the literature studying the role of WFPs in strategic HRM.

3.3 Work-Family Practices and Strategic Human Resource Management

The modern strategic HRM literature is heavily influenced by Huselid (1995). The relationship between HRM practices and firm performance is the foundation for the strategic HRM literature and Huselid’s study is the most widely cited (Fernandez-Alles & Ramos-Rodriguez, 2009). Using a large sample of firms, Huselid demonstrated that HRM practices were negatively related to turnover and positively related to productivity and corporate financial performance. Following this study, strategic HRM practices have been widely shown to have positive associations with various measures of organizational performance. One meta-analysis of 92 studies demonstrated a clear positive relationship between the adoption of high-performance work practices—a subset of strategic HRM practices—and organizational performance (Combs et al., 2006).

Work-family practices (WFPs) are also a subset of HRM practices, though they are not as commonly considered from a strategic HRM perspective. These are practices (sometimes called flexible work initiatives or work-family provisions) which help employees manage their work
and family role demands (Kossek & Michel, 2011). Their central feature is that they give employees some degree of control over when, where, or how they work with the most proximal goal being the improvement of employee work-family role management. WFPs can thus take several forms which alter the timing, location, amount, or distribution of work (Kossek & Michel, 2011). Various such WFPs concern childcare; two of these are the focus of the present study. First, onsite and subsidized childcare allow employees to focus on work demands during time designated for the work role, minimizing family interruptions and distractions (Payne, Cook, & Diaz, 2012). Childcare also allows employees to work who might not be able to due to a lack of other childcare options. Second, allowing employees to stay in touch with the workplace during designated parental leave (henceforth called parental leave contact) slows the depreciation of human capital associated with taking substantial time off from work. This policy should allow an easier transition back to the workplace after parental leave has ended.

WFPs such as these may help increase employee performance by minimizing family-based interruptions of work for those with high family demands (Shockley & Allen, 2007) or keeping employees on leave up-to-date with establishment issues and practices. But while other HRM practices may improve organizational performance through aggregate improvements in individual employee performance (Combs et al., 2006), the primary strategic value in WFPs is thought to come from their ability to attract talented job applicants or retain existing talented employees, particularly from demographic groups which tend to place a higher value on flexibility (Berg, Kalleberg, & Appelbaum, 2003; Glass & Estes, 1997; Osterman, 1995). A review by Beauregard and Henry (2009) breaks down the literature on the effects of WFPs on organizational strategic interests and summarizes the results of both individual and organizational outcomes of studies of the adoption WFPs. They conclude that WFPs are effective
in the recruitment and retention of employees because WFPs signal broader organizational support for employees, fostering commitment (e.g., Casper & Buffardi, 2004).

On the other hand, the review finds mixed evidence that WFPs are associated with increased firm performance more directly, like other strategic HRM practices. Perry-Smith and Blum (2000) for example found that more WFPs were associated with higher perceptions of firm performance. But, Bloom, Kretschmer, and Van Reenen (2011) found that any benefit of WFPs on firm productivity can be explained by a more general “quality of management practices” measurement. Similarly, studies by Konrad and Mangel (2000) and Lee and DeVoe (2012) found that WFPs are beneficial to some organizations but not others. Evidence for a substantial impact of WFPs on firm-level productivity is thus at this point inconclusive.

Beauregard and Henry suggest that investigating other mechanisms through which WFPs can impact firm performance, such as employee turnover levels, may provide a better way of examining the effect of WFPs on firm performance than examining their effects on employee productivity. In support of this contention, many individual-level studies grounded in organizational behavior perspectives have shown that the availability and use of WFPs are associated with greater employee commitment and other desirable outcomes. One recent meta-analysis concluded that greater WFP availability was positively associated with higher affective commitment, higher job satisfaction, and lower work-family conflict (Butts et al., 2013). Other studies have shown that an employee’s affective commitment is linked with lower turnover intentions and absenteeism (Somers, 1995). Though these studies provide empirical support for pieces of the chain between WFP availability, organizational commitment, and desirable organizational outcomes, some studies have examined the link between WFP availability and organizational attraction or employee turnover intentions directly.
These studies have shown that job applicants are more attracted to firms offering more work-family practices (e.g., Carless & Wintle, 2007; Honeycutt & Rosen, 1997; Rau & Hyland, 2002). Similarly, many studies have shown a negative link between WFP availability and turnover intentions and absenteeism (Baltes, Briggs, Huff, Wright, & Neuman, 1999; Dalton & Mesch, 1990; Ralston & Flanagan, 1985). The above-mentioned meta-analysis showed an overall positive relationship between WFP availability and intentions to stay across 19 studies (Butts et al., 2013). Batt and Valcour (2003) showed that some work-family practices were associated with reduced turnover intentions even controlling for other HRM practices such as benefits and job design. While these studies do not examine actual turnover, provide nationally representative cross-industry samples, or carefully address issues of causal direction, they provide empirical support for the effectiveness of WFPs. Taken together, the research on work-family practices in the strategic HRM domain suggests that one way organizations are likely to benefit from their presence is through increased retention of employees.

As discussed in depth above, the state of public childcare in Germany provides some insight into what types of WFPs might be particularly effective in increasing employee retention. In Germany, because public childcare is in high demand and relatively short supply, organizational childcare practices may be especially effective in employee retention. Similarly, social pressure to care for children during their first few years may compel some employees to take longer parental leaves than desired. Parental leave contact makes returning to work easier and keeps employees’ skills more relevant during the leave period. This line of research leads to Hypotheses 1a and 1b. Note that these hypotheses compare different establishments, constituting between-establishment predictions.

Hypothesis 1a: Establishments with a higher prevalence of childcare practices over time will have lower overall turnover relative to other establishments on average.
Hypothesis 1b: Establishments with a higher prevalence of parental leave contact over time will have lower overall turnover relative to other establishments on average.

Despite the supportive evidence from the literature outlined above, Beauregard and Henry also identify several shortcomings in linking WFPs to organizational performance. One key criticism is that most research consists of case studies, small samples of firms, or individual-level outcomes. These results cannot necessarily be reliably extrapolated to other firms. For example, a study by Berg et al. (2003) examined whether firm practices were related to employee work-life balance perceptions, but only in the manufacturing industry. The above-mentioned study by Bloom and colleagues (2011) also only examined manufacturing firms. Another limitation is a lack of measurement of actual turnover. Most studies have examined only turnover intentions of individual employees due to the difficulty of studying actual turnover, but not everyone who intends to quit does so. Evidence suggests the correlation between intentions to quit and actual quitting is about 0.5 (Mayer & Schoorman, 1992; Steel & Ovalle, 1984). This prevents a true measurement of organization-level turnover critical to the strategic HRM perspective. In addition, turnover intentions are commonly measured at the individual level and thus subject to problems associated with aggregation and sampling within an establishment. They are consequently rarely extrapolated to the organizational level, even though strategic HRM researchers are interested primarily in organization-level outcomes. As a result, most research examining the relationship between WFPs and turnover is focused on individual turnover intentions rather than actual organizational turnover. Importantly, this research also does not address issues of causal direction between policy adoption and turnover.

Another shortcoming of the current literature is the lack of research on many specific WFPs. Given the large number and many types of WFPs and their collective unclear relationship with organizational performance, little research has provided a nuanced perspective on many
specific WFPs. In many cases, WFPs are indexed in analysis, but all WFPs are not necessarily equal and the effectiveness of a particular WFP may depend on contextual factors such as the public policy environment. Though more common practices like flextime and parental leave are well-represented in the literature, only a handful of studies have examined the strategic benefits of childcare practices. Those that have done so have had limited samples and measured intentions to turnover rather than actual turnover. Batt and Valcour (2003) found no relationship between dependent care policies and turnover intentions, but their sample included only white-collar employees in dual-career families who may be better able to afford childcare on their own.

Similarly to the broader collection of WFPs, childcare practices specifically are thought to be more effective at increasing attraction and retention of employees than having more direct effects on employee performance (Kossek & Nichol, 1992). Payne, Cook, and Diaz (2012) found that access to quality childcare was associated with lower turnover intentions and absenteeism through reduced family interference with work.

Complicating matters further, the relationship between WFPs and turnover may vary from society to society (Stavrou & Kilaniotis, 2009) suggesting that a much more careful perspective is needed to understand why and how individual WFPs are strategically viable. This also supports the need for having studies of specific WFPs, as certain WFPs may be better suited to particular contexts. In Germany, where childcare demands are particularly high and public options are not readily available, organization-sponsored childcare practices may be especially attractive to employees and thus more strategically viable for organizations in terms of their ability to attract and retain employees (Piszczek & Berg, forthcoming). This may also explain the lack of research surrounding parental leave contact policies, which may be more commonly informal in the United States where the majority of WFP studies draw their samples. It may however be more important and thus more formalized in contexts such as Germany with stronger
sociocultural pressure for mothers to stay at home with children for several years and longer, paid maternity leaves.

I address these issues in the present study. I use a large, nationally representative dataset which covers all industry classifications in Germany with data on actual turnover at the establishment level. I examine childcare and parental leave contact practices specifically and separately, and above argued why in the context of Germany they are particularly likely to be successful. Later, I make comparisons to other cultural and institutional contexts. One final issue I address is a bigger problem in the broader strategic HRM literature alluded to above: the nature of the relationship between strategic HRM practices and organizational performance.

### 3.4 Conflicting Effects in Strategic Human Resource Management Theory

In order to develop the next pair of hypotheses, the relationship between HRM practice and organizational performance must be carefully considered. Strategic HRM theory posits that the adoption of a strategic practice will subsequently lead to improved organizational outcomes, but some scholars suggest the reverse is also plausible: organizations with better performance are better positioned to adopt more and better quality HRM practices (Wright et al., 2005). This may be the result of either having more financial support for such practices or as a reward to employees for their performance. Though the strategic HRM literature makes a strong theoretical case for the practice-to-performance causal direction, there is empirical evidence to suggest that the performance-to-practice effect is in play, or even that both effects are operating simultaneously.

One detailed description of this dilemma comes from a study by Wright, Gardner, Moynihan, and Allen (2005). The study critiques the strategic HR literature for a lack of “rigorous designs to test the hypothesis that employing progressive HRM systems actually results in higher organizational performance in a causal sense.” While some studies did test their
hypotheses longitudinally, many did so using retrospective designs in which participants needed to remember the practices of their organization in the past (e.g., Guthrie, 2001; Ichniowski & Shaw, 1999). Through partial correlations, the Wright et al. study demonstrates that the adoption of HR practices was related not only to future performance, but also past performance.

Another methodologically rigorous study provides evidence that practice and performance may have a reciprocal relationship. Van Iddekinge et al. (2009) used a latent growth modeling approach to show that, over time, the relationship between strategic HRM practice and organizational performance was reciprocal. They also showed that different policies and practices operated in different causal directions. For example, in their sample they found that training practices drove organizational performance, but organizational performance drove the use of selection procedures. Because of this, examining relationships between specific strategic HRM practices and organizational performance individually may be even more important.

Finally, in their meta-analysis of high-performance work practices, Combs, Lio, Hall, and Ketchen (2006) suggest that practices and performance operate in a feedback loop which authors should consider in future research.

Thus, causality remains a key area for further research in the strategic HRM literature. In order to make a strong argument for causality, research must meet three criteria (T. D. Cook & Campbell, 1979): covariation between cause and effect, temporal precedence of the cause, and elimination of alternative explanations for the possible cause-effect connection. By demonstrating a statistically significant relationship between two variables, as the majority of studies have in this literature, only the first criterion is met. The second can only be addressed with longitudinal data collection which measures the dependent variables at different times as the independent variables fluctuate. In order to meet the third, an expansive dataset is needed to rule out potential confounding effects, which at the firm level are numerous yet difficult to measure.
Researchers typically lack the resources to be able to survey large numbers of organizations at all, let alone longitudinally or with large surveys which cover many potential controls. Because of these issues, causality has been difficult to establish in macro-level studies focused on organizations as the subject of interest.

One way to potentially better understand the nature of the relationship between strategic HRM practices and organizational performance is to examine it both between establishments with different HRM practices and within establishments as they change their HRM practices over time. Though this technique does not meet all the requirements for causality outlined above, as both components are still cross-sectional in nature, it does provide more insight into the relationship in question. While a between-establishment analysis compares the turnover levels of different establishments based on whether they had a WFP in place, the within-establishment analysis uses longitudinal data to examine the average relationship between turnover and the presence of a WFP in a single establishment, as that practice changes over time, holding constant any time-invariant aspects of that organization. With this analysis, researchers can answer two different questions: are establishments with strategic HRM practices better performers, and is a change in HRM practices associated with a change in organizational performance?

The first question, represented by Hypotheses 1a and 1b above, is addressed by more typical, cross-sectional between-establishment relationships. Because one cannot infer causation from correlational relationships such as cross-sectional regression coefficients, these relationships are consistent with multiple theoretical explanations. For example, fundamental strategic HRM theory suggests that a negative relationship between presence of a WFP and turnover in an establishment is because the adoption of the practice caused a decrease in turnover. Alternatively, an establishment with very low turnover may adopt WFPs to reward its committed employees or because they have lower employee replacement costs. Because cross-
sectional studies are typical due to difficulties in collecting longitudinal data, most studies cannot
differentiate between these two causal directions.

To provide more insight into the exact nature of the between-establishment effects, when
data provides, researchers can also examine the relationship between WFPs and performance
within a single establishment as it changes its WFPs over time. This can be done with an
establishment fixed-effects model, which controls for time-invariant characteristics of the
establishment and thus comes much closer to meeting the third criterion for establishing
causality. If there is no relationship between WFP adoption and turnover within establishments,
it may be that they are not effective at retaining employees already in the establishment. If a
negative relationship between WFP adoption and turnover is observed, this provides much
stronger causal evidence as all other time-invariant organization-level explanations for the
turnover change can be ruled out while other potentially time-variant explanations can be
controlled. In this sense, the fixed-effects model is a natural quasi-experiment in which changes
in turnover can be observed alongside changes in work-family practices.

Unfortunately, examining within-establishment effects is a difficult task as
establishments do not change their practices very frequently. Finding a sufficient number of
within-establishment changes in HRM practices using a random sample is even more
challenging. The present study is able to meet these challenges because its sample is comprised
of approximately 16,000 German establishments over several years collected using a stratified
random sampling technique. Even though relatively few establishments changed their WFPs
across the years of the study, as described in the results below, this sample still provides several
hundred instances of such changes, creating a natural quasi-experiment of sufficient size from
which to examine within-establishment effects.
Recall that Hypothesis 1 stated that establishments with more prevalent childcare practices would tend to have lower levels of turnover. This between-establishment effect is consistent with strategic HRM theory’s prediction that the adoption of a childcare practice will reduce turnover. Hypothesis 2 is also consistent with this prediction, but is stated in terms of the within-establishment effect.

Hypothesis 2a: In years when an establishment has a childcare practice in place, it will have lower turnover relative to years when it does not have a childcare practice in place.

Hypothesis 2b: In years when an establishment has parental leave contact in place, it will have lower turnover relative to years when it does not have parental leave contact in place.

Hypotheses 1 and 2 are both consistent with strategic HRM theory but together make a more powerful prediction. Support of Hypothesis 1 suggests two possibilities. First, as predicted by strategic HRM theory, childcare and/or parental leave contact practices are effective in reducing turnover, such that they drop the establishments that have them to lower levels of turnover than those that do not. This would result in lower turnover among establishments with these practices being observed in the between-establishment analysis. Second, counter to strategic HRM theory, establishments with these practices may offer them because they have lower turnover, either as a reward to dedicated employees or because they are better positioned financially to create such practices and programs. Because Hypothesis 1 does not differentiate between the potential directions of the effect, it is a better indication of what types of establishments have such practices in place rather than what the effect of those practices are. This is discussed in depth later.

Hypothesis 2 suggests that it is the first of these two potential effects at play, because if childcare practices were being used to reward employees, turnover would likely be lower regardless of the presence of a childcare practice and we would not observe lower turnover
within a single establishment when it has the practice present and when it does not. In other words, there would be no within-establishment effect. All together, the present design cannot provide a full causal analysis of the relationship between HRM practice adoption and organizational performance, but the inclusion of a within-establishment component provides evidence to eliminate some conflicting explanations and make a stronger argument about the direction of the relationship. Aside from causal issues, however, another important consideration is whether the effects of these practices may disproportionately affect women.

3.5 WFP Effectiveness and Gender

As mentioned above, Germany’s federal government recently passed a law providing a monthly childcare allowance for children between ages one and three called Betreuungsgeld. This policy essentially extends the widely used one year maternity leave until a child is age three, at a government cost of about 1.2 billion Euros annually (Pauls, 2013). Critics contend this small subsidy will encourage women to become stay-at-home moms rather than pursue a career, and that the money would be better spent further expanding the public daycare system. Proponents say that these mothers were already likely to have stayed at home rather than returning to the labor market. Though it is too early to tell the effects of this policy on female labor market participation, its effect on the employment of women is a key issue of interest. This may also be of importance to establishments. If critics are correct, the new policy should make establishments with childcare practices even more attractive to women who wish to stay in the labor market. Childcare practices allow employers to compete with the Betreuungsgeld allowance. For mothers for whom the allowance was just enough to keep them out of the labor market, having a comparable option from a workplace may be sufficient to keep them there.

There is substantial theoretical and empirical evidence from strategic HRM theory that certain practices may be more effective for particular subgroups of employees. In societies where
caregiving demands are a primarily female role, practices that assuage those demands should have more influence on the employment decisions of women. Indeed, childcare has been traditionally seen as a female role in Germany (Treas & Drobnic, 2010). Butts and colleagues (2013) found that WFPs were more strongly related to employee attitudes in samples consisting of more women and more individuals with family demands. Casper and Harris (2008) found that the relationship between WFP availability and organizational commitment was unconditional for women while for men it was dependent on WFP use. Konrad and Mangel (2000) also found stronger relationships between WFP availability and organizational performance when the percentage of female employees was higher. Though childcare provisions are likely beneficial for both men and women, this evidence suggests that they may be more beneficial for women than men on average. Thus, I expect that childcare and parental leave contact practice prevalence will be more strongly associated with female turnover than male turnover across both the between and within-establishment effects described in Hypotheses 1 and 2.

Hypothesis 3a: The relationship between childcare practice offering and turnover will be stronger for turnover of women than for turnover of men.

Hypothesis 3b: The relationship between parental leave contact offering and turnover will be stronger for turnover of women than for turnover of men.

3.6 Methods

3.6.1 Sample

Data for the current study comes from the IAB Establishment Panel. The IAB Establishment Panel is a nationally representative random survey of German establishments conducted annually on June 30th to based on a random stratified sample. The sampling frame includes any establishment which employs at least one person subject to social security. The population of the panel consists of roughly 16,000 establishments each year. Though the surveys
typically cover general financial and employment information, each year a supplemental survey is attached, providing additional questions regarding a specific topic of interest, including the existence of several work-family practices in some years. Because of this aspect of the survey design, information regarding WFPs is not available for every year. The present study used data from 2002, 2004, and 2008, the years which establishment surveys contained questions about WFPs. Over the three survey years there is some attrition as establishments close or discontinue participation. Thus, the number of observations varies with each type of analysis and can be found in the relevant tables presented for each analysis.

3.6.2 Variables

All variables are measured at the establishment level. The first key independent variable is the presence of an establishment practice which assists employees with childcare. This variable was assigned a “1” if establishments had any of the following: “Workplace childcare facilities,” “Sponsoring childcare, support by parents’ initiative,” or “Further assistance concerning childcare.” In 2002, these three offerings were assessed individually but in subsequent years they were combined into a single item. I thus recoded the 2002 measure to be consistent with the other years. Establishments were also asked whether they had a policy of keeping in contact with employees while they were out on parental leave which was similarly scored with “1” or “0.” The key dependent variable is establishment turnover. This variable is the number of employees exiting the establishment for any reason in the first half of the year (as the survey is conducted on June 30th). The survey reports total turnover and turnover of women; turnover of males was calculated by subtracting female turnover from total turnover.

In each model, I include several control variables which may affect turnover rates. “State” is the German federal state where the establishment was located and “industry” is a one-digit industry indicator. Other control variables assess the establishment’s labor force
characteristics, including the total number of employees at the establishment, the proportion of
the total number of employees which were female, employees’ average weekly working hours,
and employees’ monthly average gross pay. Establishment profit is also included as a control,
measured using a single Likert scale question reading “Please give your assessment of the profit
situation of your business in the last fiscal year.” Business volume is also included, providing a
control for the financial size of the business. The survey also assesses whether the establishment
offers overtime, operates under a collective agreement, or has a works council. These are all
dichotomously coded as either “1” for the presence or “0” for the absence of each characteristic.
To control for a more general treatment of women in the establishment, dichotomous controls for
a policy of promoting women and absence of any equal opportunity policies are included.
Finally, year controls are included to contain any general trends in turnover that occurred
through the years in the sample.

3.6.3 Analysis

The dataset for this analysis is a large pooled cross-section with observations at the
establishment-year level; each establishment appears as a separate case for each year it appears
in the panel, between one and three times. Results are presented using linear regression models.
All models use standard errors clustered on establishment to account for the non-independence
of observations, which may otherwise bias standard errors leading to spurious results. The
between-establishment model uses a pooled cross-section of all the data (controlling for year as
well as all other above-mentioned controls). These models address Hypotheses 1a and 1b. They
examine the average relationship between having a childcare or parental leave contact policy and
turnover. The within-establishment model specifies establishment-fixed effects, controlling for
time-invariant characteristics of establishments. Time-fixed effects are also included as a control.
Because an establishment’s industry and state rarely vary over time, these controls are
encompassed in the establishment fixed effects and thus not modeled directly. This model addresses Hypotheses 2a and 2b.

I also present a third model which combines the between- and within-establishment effects into a single estimated model. This provides a robustness check for the results of the separate models in addition to providing more efficient estimations that, unlike a purely random effects model, do not use a matrix-weighted average of the between- and within-establishment results (Gould, 2001). Instead, I calculate the means of each independent variable by establishment and include them in a random effects model. This model also includes standard errors clustered on establishment to account for non-independence of the data resulting from multiple observations for each establishment.

Importantly, the dependent variables are count variables with zero values for establishments reporting no turnover. Though log transformations are commonly used with such variables, this usually requires altering observations of zero (e.g., by adding one to each zero value so the log can be taken from zero values), and such transformations do not address non-normality of error structure (O’Hara & Kotze, 2010). Although the use of clustered or robust standard errors can account for the bias due to non-normally distributed dependent variables, the structure of the turnover variable could potentially be problematic if linear models are used.

Thus, as an additional robustness check, I conduct each of the three analyses using poisson regression as well. These models, presented in Appendix B, are meant to mirror the within-establishment, between-establishment, and combined models presented in this chapter. Poisson models also allow for the use of an exposure variable which accounts for the opportunity for a particular value of the dependent variable to occur. Because turnover count is likely closely related to the total number of employees in an establishment in that it creates an upper ceiling, this was used as the exposure in the poisson models. For the poisson models, incidence rate
ratios (IRRs) are also reported, which can be interpreted as a proportional and constant hazard rate. In other words, the IRR is the proportion change in the turnover count associated with a one-point change in the independent variable.

Finally, to address Hypotheses 3a and 3b, the coefficients for male and female turnover are directly compared by calculating a z-score for their difference in magnitude. This comparison is shown for both the distinct between- and within-establishment models as well as for the combined model. Additionally, it is shown for both childcare and parental leave contact.

3.7 Results

3.7.1 Variance Components Analysis

An important precursor to estimating both between- and within-establishment effects is to demonstrate that the dependent variable varies sufficiently at each level. If there is little variance in a variable at a certain level of analysis, there is also little practical value in assessing its relationship with predictors at that level. In order to estimate the proportion of variance in the dependent variables due to within- and between establishment variation, I conducted a one-way ANOVA using the loneway command in Stata 12. The results are presented in Table 3.1 below. Each ANOVA gives an ICC statistic, interpretable as the upper bound of the proportion of variation in each dependent variable explainable by the establishment ID variable. In other words, it is the upper bound of the proportion of variance explainable by between-establishment effects. Whatever variance is not captured by between-establishment effects is due to within-establishment effects and error, which are indistinguishable.

Table 3.1 reveals that a substantial portion of between-establishment variance may exist in each of the three dependent variables, as represented by the intraclass correlation coefficient (ICC). This is supported in each model by a statistically significant F-test, testing against the null that the between-establishment sum of squares is equal to zero. However, the ICCs are not so
large as to indicate no additional sources of variation in turnover measures. While approximately 60-65% of variation in each turnover variable can be attributed to between-establishment differences, the remaining proportion is due to variation within an establishment over time, plus error. Because this is a government-collected dataset collected alongside information relevant to taxes and social security, there is not likely to be much measurement or sampling error as misreporting could have financial implications for the establishment and the sample is large. Thus there is substantial variation in turnover at both between- and within-establishment levels of analysis, supporting the discrete modeling of each component and the differentiation of their effects in Hypotheses 1 and 2.

Table 3.1: One-way ANOVA results on dependent variables demonstrating within-and-between establishment variance components

<table>
<thead>
<tr>
<th>Variable</th>
<th>ICC</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Turnover</td>
<td>0.64984</td>
<td>3.68</td>
<td>0.000</td>
</tr>
<tr>
<td>Total Turnover (Male)</td>
<td>0.64173</td>
<td>3.58</td>
<td>0.000</td>
</tr>
<tr>
<td>Total Turnover (Female)</td>
<td>0.59864</td>
<td>3.15</td>
<td>0.000</td>
</tr>
</tbody>
</table>

3.7.2 **Descriptive Statistics**

Table 3.2 shows the descriptive statistics of the study variables, and breaks down the standard deviations of each measure into between- and within-establishment components. Within-establishment versions of each variable are centered at the establishment mean and therefore, by definition, will have negative minimums and means of zero. Thus only overall means are shown. Standard deviations for both levels of variation are provided to better indicate how much variation lies at each level of analysis for each variable. The descriptive statistics reveal that the average establishment was moderately large with a size of 170.51 employees, but with an even larger standard deviation (859.5235). On average, establishments reported that 15 employees turned over in the 6 months preceding the survey, the majority of whom were male.
Only about 4% of establishments offered childcare practices to employees while 15% offered parental leave contact (across all years). The within-establishment standard deviations of 0.1 for childcare and 0.177 for parental leave contact suggest that establishments are largely, but not completely, consistent in their WFPs, and that parental leave contact practices are a bit more volatile than childcare practices. Table 3.3 shows the prevalence of these practice changes across the establishments that participated in all three waves of the panel and confirms that the majority of establishments never had these practices at all. Table 3.4 shows the distribution of industries and WFPs among them. Childcare prevalence ranges from 1.39% of observations in construction to 10.89% in financial intermediation, while parental leave contact ranges from about 5% in agriculture to 40% in financial intermediation.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
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<td>Number of employees</td>
<td>overall</td>
<td>170.5101</td>
<td>859.5235</td>
<td>1</td>
<td>50524</td>
</tr>
<tr>
<td></td>
<td>between</td>
<td>816.728</td>
<td>1</td>
<td>48009.33</td>
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<tr>
<td></td>
<td>within</td>
<td>63.05975</td>
<td>-4057.82</td>
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<tr>
<td>Number of employees (female)</td>
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<td>18531</td>
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<tr>
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<td>-2018.93</td>
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<tr>
<td>Total turnover</td>
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<td>55.32137</td>
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</tr>
<tr>
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<td>49.64795</td>
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<td>2416</td>
<td></td>
</tr>
<tr>
<td></td>
<td>within</td>
<td>18.11802</td>
<td>-502.476</td>
<td>573.0244</td>
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<tr>
<td>Total turnover (male)</td>
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<td>8.473034</td>
<td>34.25253</td>
<td>0</td>
<td>1551</td>
</tr>
<tr>
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<td>between</td>
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<td>1551</td>
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<tr>
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<td>within</td>
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<td>Total turnover (female)</td>
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</tr>
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<td></td>
<td>within</td>
<td>9.692457</td>
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<td>Business volume</td>
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<td>1.080366</td>
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<td>-0.46691</td>
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<td>2849000</td>
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<td></td>
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<tr>
<td></td>
<td>within</td>
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<td>Avg. weekly work hours</td>
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<td>3.121292</td>
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<tr>
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<td>between</td>
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<tr>
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<td>Variable</td>
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<td>Std. Dev.</td>
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<td>Overtime</td>
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<td></td>
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<td>Works council</td>
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<td>0.475404</td>
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<td></td>
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<td></td>
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<tr>
<td>employees</td>
<td>between</td>
<td>0.199498</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>within</td>
<td>0.120723</td>
<td>-0.61247</td>
<td>0.72086</td>
<td></td>
</tr>
<tr>
<td>Childcare practice</td>
<td>overall</td>
<td>0.041214</td>
<td>0.198786</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>between</td>
<td>0.185027</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>within</td>
<td>0.101004</td>
<td>-0.62545</td>
<td>0.70788</td>
<td></td>
</tr>
<tr>
<td>Parental leave contact</td>
<td>Overall</td>
<td>0.149895</td>
<td>0.356972</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>between</td>
<td>0.324846</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>0.177188</td>
<td>-0.51677</td>
<td>0.816561</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.3: Frequency of establishment changes in childcare practices

<table>
<thead>
<tr>
<th>Practice Change</th>
<th>Percent of Establishments (Childcare)</th>
<th>Percent of Establishments (Parental Leave Contact)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Added between 2002 and 2004</td>
<td>0.75</td>
<td>4.44</td>
</tr>
<tr>
<td>Added between 2004 and 2008</td>
<td>1.16</td>
<td>4.58</td>
</tr>
<tr>
<td>Dropped between 2002 and 2004</td>
<td>1.43</td>
<td>4.63</td>
</tr>
<tr>
<td>Dropped between 2004 and 2008</td>
<td>0.75</td>
<td>4.44</td>
</tr>
<tr>
<td>Present in 2002, 2004, and 2008</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Not present in 2002, 2004, or 2008</td>
<td>96.66</td>
<td>86.35</td>
</tr>
</tbody>
</table>

Note: Includes establishments appearing in all three years only; N=20,638
Table 3.4: Breakdown of sample and childcare offerings by industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of Obs.</th>
<th>% Obs.</th>
<th>Number of Estab.</th>
<th>% Estab.</th>
<th>% Offering Childcare</th>
<th>% Offering Parental Leave Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture/Forestry/Fishing</td>
<td>771</td>
<td>1.62</td>
<td>588</td>
<td>1.74</td>
<td>1.56</td>
<td>4.93</td>
</tr>
<tr>
<td>Mining/Manufacturing</td>
<td>7541</td>
<td>15.89</td>
<td>5993</td>
<td>17.71</td>
<td>4.43</td>
<td>14.34</td>
</tr>
<tr>
<td>Electricity/Water supply</td>
<td>323</td>
<td>0.68</td>
<td>268</td>
<td>0.79</td>
<td>8.98</td>
<td>22.29</td>
</tr>
<tr>
<td>Construction</td>
<td>8984</td>
<td>18.93</td>
<td>7475</td>
<td>22.09</td>
<td>1.39</td>
<td>8.44</td>
</tr>
<tr>
<td>Trade/Hotels/Restaurants</td>
<td>7702</td>
<td>16.23</td>
<td>5196</td>
<td>15.35</td>
<td>1.79</td>
<td>9.47</td>
</tr>
<tr>
<td>Transport/Communication</td>
<td>1792</td>
<td>3.78</td>
<td>1221</td>
<td>3.61</td>
<td>3.51</td>
<td>12.89</td>
</tr>
<tr>
<td>Financial Intermediation</td>
<td>1313</td>
<td>2.77</td>
<td>809</td>
<td>2.39</td>
<td>10.89</td>
<td>40.06</td>
</tr>
<tr>
<td>Real Estate/Commercial Services</td>
<td>5559</td>
<td>11.71</td>
<td>3661</td>
<td>10.82</td>
<td>5.54</td>
<td>12.93</td>
</tr>
<tr>
<td>Public Services</td>
<td>8772</td>
<td>18.48</td>
<td>5116</td>
<td>15.12</td>
<td>7.58</td>
<td>28.75</td>
</tr>
<tr>
<td>Non-Industrial Organizations/Private Households</td>
<td>2625</td>
<td>5.53</td>
<td>1619</td>
<td>4.78</td>
<td>4.61</td>
<td>13.22</td>
</tr>
<tr>
<td>No Industry Given</td>
<td>2078</td>
<td>4.38</td>
<td>1900</td>
<td>5.61</td>
<td>0.87</td>
<td>4.38</td>
</tr>
</tbody>
</table>

3.7.3 **Regression Analyses**

The between-establishment analysis is shown in Table 3.5. Establishments offering childcare practices throughout more of the survey years have higher levels of total turnover, contrary to Hypothesis 1a, which stated that establishments with childcare practices would have lower overall turnover on average. This relationship also holds for both male and female turnover examined separately. Parental leave contact, on the other hand, is associated with lower levels of turnover for men, but not for women or overall. This provides limited support of Hypothesis 1b.

The within-establishment model is shown in Table 3.6. Several control variables yield significant effects. Adoption of a collective agreement and increased profit are associated with lower turnover overall and for men, but not for women. Turnover also tends to be lower over
time, with overall and female turnover lower in 2008 and 2004 than in 2002. Male turnover is also lower in 2008 compared to 2002, but not 2004. Finally, in partial support of Hypothesis 2a, adoption of a childcare practice is associated with lower turnover overall and for men. For women, the coefficient failed to reach statistical significance (p=0.07) but trends in the expected direction. In opposition to Hypothesis 2b, changes in parental leave contact practices are unrelated to turnover in all three models.

The combined model which simultaneously includes between- and within-establishment components is shown in Table 3.7. The model shows effects largely consistent with those of the distinct within- and between-establishment analyses for key variables. One exception is that whereas the within-establishment model does not find a relationship between a change in childcare policy and female turnover, such a relationship is present in the combined model. This provides additional support for Hypothesis 2a. The model is consistent with the above opposite direction finding regarding Hypothesis 1a. Consistent with the general lack of support for Hypotheses 1b and 2b, the between-establishment relationship of parental leave contact and male turnover is not statistically significant in the combined model. Overall, the combined model suggests that the relationship between childcare and establishment turnover is robust while that of parental leave contact and turnover is not.

Hypotheses 3a and 3b state that the relationship between childcare practices and parental leave contact and turnover are stronger for turnover of women than turnover of men. To test these hypothesis, I calculate Z statistics comparing the unstandardized regression coefficients across the three models. These comparisons are presented in Table 3.8, and are calculated even when the coefficients themselves were not statistically significantly different from zero as they may still be different from one another. This test reveals a statistically significant difference in the between-establishment coefficients of both childcare and parental leave contact between men
and women. These differences did not hold up in the combined model, in which no comparison produced a statistically significant difference.

Thus, Hypotheses 3a and 3b are only partially supported. There are no differences in within-establishment coefficients. The positive relationship of childcare with establishment turnover is stronger for women than men. Though a stronger relationship was hypothesized, the observed direction of the relationship was not. For parental leave contact, the between-establishment effect was more negative for men. Yet once again, these differences do not appear in the combined model.

The within-establishment and combined poisson models presented in Appendix B are largely consistent with their linear counterparts presented up with respect to key variables. The single exception is that the poisson fixed-effects (i.e., within-establishment) regression shows a negative relationship between the adoption of a childcare practice and female turnover whereas the linear version did not. This provides additional support for Hypothesis 1a and is also consistent with the linear combined model. The poisson combined model for total turnover failed to converge, thus its results are not presented in Appendix B. Overall, the similarity of the poisson models to the linear models suggest that the models presented do not suffer from the non-normality of the distribution of the dependent variable, and that the standard error clustering techniques successfully ameliorated problems associated with linear modeling of count data.
Table 3.5: Between-establishment regressions

<table>
<thead>
<tr>
<th></th>
<th>Total Turnover</th>
<th>Male Turnover</th>
<th>Female Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>B</td>
</tr>
<tr>
<td>Proportion of employees female</td>
<td>-0.015</td>
<td>0.817</td>
<td>-4.299**</td>
</tr>
<tr>
<td>Total employees</td>
<td>0.046**</td>
<td>0.001</td>
<td>0.018**</td>
</tr>
<tr>
<td>Gross monthly pay (10,000)</td>
<td>-0.06</td>
<td>0.003</td>
<td>0.002</td>
</tr>
<tr>
<td>Overtime</td>
<td>-0.421</td>
<td>0.489</td>
<td>-0.174</td>
</tr>
<tr>
<td>Collective agreement</td>
<td>1.887</td>
<td>0.495</td>
<td>1.123</td>
</tr>
<tr>
<td>Works council</td>
<td>-0.574</td>
<td>0.570</td>
<td>0.374</td>
</tr>
<tr>
<td>No equal opportunity policies</td>
<td>-2.438</td>
<td>0.886</td>
<td>-1.808</td>
</tr>
<tr>
<td>Profit</td>
<td>-0.702</td>
<td>0.206</td>
<td>-0.306</td>
</tr>
<tr>
<td>Business volume</td>
<td>0.450</td>
<td>0.334</td>
<td>0.163</td>
</tr>
<tr>
<td>Average weekly work hours</td>
<td>-0.003</td>
<td>0.007</td>
<td>-0.009</td>
</tr>
<tr>
<td>Childcare practices</td>
<td>7.571**</td>
<td>1.212</td>
<td>1.884**</td>
</tr>
<tr>
<td>Parental leave contact practices</td>
<td>-1.378</td>
<td>0.956</td>
<td>-1.504**</td>
</tr>
<tr>
<td>Female promotion practices</td>
<td>-2.813*</td>
<td>1.167</td>
<td>-1.906**</td>
</tr>
<tr>
<td>Industry: Mining/Manufacturing</td>
<td>-10.088**</td>
<td>1.807</td>
<td>-5.546**</td>
</tr>
<tr>
<td>Industry: Electricity/Water supply</td>
<td>-10.982**</td>
<td>3.184</td>
<td>-5.422**</td>
</tr>
<tr>
<td>Industry: Construction</td>
<td>-9.462**</td>
<td>1.859</td>
<td>-5.967**</td>
</tr>
<tr>
<td>Industry: Trade/Hotels/Restaurants</td>
<td>-9.089**</td>
<td>1.796</td>
<td>-5.191**</td>
</tr>
<tr>
<td>Industry: Financial Intermediation</td>
<td>-10.825**</td>
<td>2.144</td>
<td>-7.022**</td>
</tr>
<tr>
<td>Industry: Real Estate/Commercial Services</td>
<td>-1.948</td>
<td>1.821</td>
<td>-1.362</td>
</tr>
<tr>
<td>Industry: Public Services</td>
<td>-9.609**</td>
<td>1.870</td>
<td>-5.616**</td>
</tr>
<tr>
<td>Industry: Non-Industrial Orgs</td>
<td>-7.164**</td>
<td>1.977</td>
<td>-3.415**</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.015**</td>
<td>0.817</td>
<td>14.126</td>
</tr>
</tbody>
</table>

| N: Observations | 36,308 | 35,781 | 35,783 |
| N: Groups       | 23,097 | 22,798 | 22,799 |

Notes: *p≤0.05; **p≤0.01

State and year controls not shown in table but were included in all analyses.
Table 3.6: Within-establishment regression models with establishment fixed effects

<table>
<thead>
<tr>
<th></th>
<th>Total Turnover</th>
<th></th>
<th>Male Turnover</th>
<th></th>
<th>Female Turnover</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Proportion of employees female</td>
<td>0.556</td>
<td>1.458</td>
<td>-0.730</td>
<td>0.801</td>
<td>1.230</td>
<td>0.787</td>
</tr>
<tr>
<td>Gross monthly pay (10,000)</td>
<td>0.001</td>
<td>0.040</td>
<td>0.001</td>
<td>0.035</td>
<td>0.001</td>
<td>0.011</td>
</tr>
<tr>
<td>Overtime</td>
<td>0.176</td>
<td>0.280</td>
<td>0.064</td>
<td>0.144</td>
<td>0.085</td>
<td>0.198</td>
</tr>
<tr>
<td>Collective agreement</td>
<td>-0.940 *</td>
<td>0.443</td>
<td>-0.608 *</td>
<td>0.305</td>
<td>-0.325</td>
<td>0.193</td>
</tr>
<tr>
<td>Works council</td>
<td>1.179</td>
<td>1.307</td>
<td>1.052</td>
<td>0.972</td>
<td>0.163</td>
<td>0.530</td>
</tr>
<tr>
<td>No equal opportunity policies</td>
<td>-1.324</td>
<td>0.880</td>
<td>-0.873</td>
<td>0.515</td>
<td>-0.395</td>
<td>0.544</td>
</tr>
<tr>
<td>Profit</td>
<td>-0.201</td>
<td>0.166</td>
<td>-0.206 *</td>
<td>0.096</td>
<td>-0.002</td>
<td>0.110</td>
</tr>
<tr>
<td>Business volume</td>
<td>2.599 **</td>
<td>0.899</td>
<td>0.642</td>
<td>0.350</td>
<td>1.967 **</td>
<td>0.674</td>
</tr>
<tr>
<td>Average weekly work hours</td>
<td>0.000</td>
<td>0.003</td>
<td>0.002</td>
<td>0.002</td>
<td>-0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Total Employees</td>
<td>0.026</td>
<td>0.023</td>
<td>0.026</td>
<td>0.015</td>
<td>-0.001</td>
<td>0.013</td>
</tr>
<tr>
<td>Childcare practices</td>
<td>-4.489 *</td>
<td>2.176</td>
<td>-2.782 *</td>
<td>1.40</td>
<td>-1.871</td>
<td>1.059</td>
</tr>
<tr>
<td>Parental leave contact practices</td>
<td>-0.219</td>
<td>1.228</td>
<td>-0.500</td>
<td>0.554</td>
<td>0.328</td>
<td>0.880</td>
</tr>
<tr>
<td>Female promotion practices</td>
<td>1.055</td>
<td>1.650</td>
<td>0.679</td>
<td>1.083</td>
<td>0.418</td>
<td>0.804</td>
</tr>
<tr>
<td>Year: 2004</td>
<td>-0.739 *</td>
<td>0.312</td>
<td>-0.065</td>
<td>0.175</td>
<td>-0.662 **</td>
<td>0.213</td>
</tr>
<tr>
<td>Year: 2008</td>
<td>-1.182 **</td>
<td>0.391</td>
<td>-0.428 *</td>
<td>0.204</td>
<td>-0.760 *</td>
<td>0.298</td>
</tr>
<tr>
<td>Constant</td>
<td>1.651</td>
<td>4.106</td>
<td>-0.034</td>
<td>2.145</td>
<td>1.895</td>
<td>2.686</td>
</tr>
<tr>
<td>N: Observations</td>
<td>37,793</td>
<td></td>
<td>37,262</td>
<td></td>
<td>37,264</td>
<td></td>
</tr>
<tr>
<td>N: Groups</td>
<td>23,602</td>
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<td>23,305</td>
<td></td>
<td>23,306</td>
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</tbody>
</table>

Notes: *p≤0.05; **p≤0.01
### Table 3.7: Combined linear model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Turnover</th>
<th>Male Turnover</th>
<th>Female Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>B</td>
</tr>
<tr>
<td>Proportion of employees female</td>
<td>0.669</td>
<td>1.636</td>
<td>-1.035</td>
</tr>
<tr>
<td>Gross monthly pay (10,000)</td>
<td>0.003</td>
<td>0.043</td>
<td>0.003</td>
</tr>
<tr>
<td>Overtime</td>
<td>0.240</td>
<td>0.300</td>
<td>0.119</td>
</tr>
<tr>
<td>Collective agreement</td>
<td>-1.009</td>
<td>0.471</td>
<td>-0.619</td>
</tr>
<tr>
<td>Works council</td>
<td>1.383</td>
<td>1.315</td>
<td>1.233</td>
</tr>
<tr>
<td>No equal opportunity policies</td>
<td>-1.378</td>
<td>0.885</td>
<td>-0.959</td>
</tr>
<tr>
<td>Profit</td>
<td>-0.229</td>
<td>0.174</td>
<td>-0.220</td>
</tr>
<tr>
<td>Business volume</td>
<td>2.02 **</td>
<td>0.760</td>
<td>0.367</td>
</tr>
<tr>
<td>Average weekly work hours</td>
<td>-0.001</td>
<td>0.005</td>
<td>0.002</td>
</tr>
<tr>
<td>Childcare practices</td>
<td>-5.256 **</td>
<td>2.108</td>
<td>-3.261 **</td>
</tr>
<tr>
<td>Parental leave contact</td>
<td>-0.362</td>
<td>1.205</td>
<td>-0.566</td>
</tr>
<tr>
<td>Female promotion practices</td>
<td>1.424</td>
<td>1.649</td>
<td>0.883</td>
</tr>
<tr>
<td>Total Employees</td>
<td>0.025</td>
<td>0.022</td>
<td>0.024</td>
</tr>
</tbody>
</table>

| Variable                                      | Total Turnover | Male Turnover | Female Turnover |
|                                               | B  | SE | B  | SE | B  | SE  |
| Proportion of employees female                | -0.789 | 1.761 | -3.235 ** | 0.969 | 2.565 ** | 0.978 |
| Gross monthly pay (10,000)                    | -0.063 | 0.051 | -0.002 | 0.039 | -0.061 | 0.018 |
| Overtime                                      | -0.528 | 0.542 | -0.252 | 0.309 | -0.270 | 0.322 |
| Collective agreement                          | 2.938 ** | 0.608 | 1.671 ** | 0.378 | 1.258 ** | 0.330 |
| Works council                                 | -1.700 | 1.610 | -0.767 | 1.081 | -1.055 | 0.810 |
| No equal opportunity policies                 | -1.332 | 2.096 | -1.090 | 1.301 | -0.343 | 1.036 |
| Profit                                        | -0.411 | 0.237 | -0.045 | 0.140 | -0.334 | 0.143 |
| Business volume                               | -1.602 | 0.914 | -0.192 | 0.411 | -1.336 | 0.645 |
| Average weekly work hours                     | -0.000 | 0.007 | -0.010 | 0.004 | 0.011 | 0.004 |
| Childcare practices                           | 14.245 ** | 3.968 | 5.682 ** | 2.191 | 8.993 ** | 2.354 |
| Parental leave contact                        | -1.269 | 2.228 | -1.201 | 1.301 | -0.265 | 1.223 |
| Female promotion practices                    | -5.369 | 2.872 | -3.499 | 1.835 | -2.014 | 1.511 |
| Total Employees                               | 0.022 | 0.024 | -0.005 | 0.015 | 0.027 | 0.015 |
| Constant                                      | 11.246 * | 4.676 | 10.309 ** | 3.047 | 1.089 | 2.284 |

| N: Observations                              | 36,308 | 35,781 | 35,783 |
| N: Groups                                    | 23,097 | 22,798 | 22,799 |

Notes:  
* p≤0.05;  ** p≤0.01  
Fixed effect controls for one digit industry, German federal state, and year are included but not presented.
Table 3.8: Comparison of unstandardized regression coefficients for male and female turnover

<table>
<thead>
<tr>
<th>Practice</th>
<th>Level</th>
<th>Male Turnover Equation</th>
<th>Female Turnover Equation</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Coefficient</td>
<td>Coefficient SE</td>
<td></td>
</tr>
<tr>
<td>Childcare</td>
<td>Between</td>
<td>1.884</td>
<td>0.721</td>
<td>5.897</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>-2.782</td>
<td>1.401</td>
<td>-1.871</td>
</tr>
<tr>
<td>Parental Leave</td>
<td>Between</td>
<td>-1.504</td>
<td>0.569</td>
<td>0.024</td>
</tr>
<tr>
<td>Contact</td>
<td>Within</td>
<td>-0.500</td>
<td>0.554</td>
<td>0.328</td>
</tr>
</tbody>
</table>

Combined Models

<table>
<thead>
<tr>
<th>Practice</th>
<th>Level</th>
<th>Male Turnover Equation</th>
<th>Female Turnover Equation</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Coefficient</td>
<td>Coefficient SE</td>
<td></td>
</tr>
<tr>
<td>Childcare</td>
<td>Between</td>
<td>5.682</td>
<td>2.191</td>
<td>8.993</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>-3.261</td>
<td>1.372</td>
<td>-2.137</td>
</tr>
<tr>
<td>Parental Leave</td>
<td>Between</td>
<td>-1.201</td>
<td>1.301</td>
<td>-0.265</td>
</tr>
<tr>
<td>Contact</td>
<td>Within</td>
<td>-0.566</td>
<td>0.554</td>
<td>0.263</td>
</tr>
</tbody>
</table>

Notes: *p≤0.05; **p≤0.01; ***p≤0.001
3.8 Discussion

The results are somewhat surprising in that, contrary to the predictions of strategic HRM theory and Hypotheses 1a and 1b, establishments with childcare practices did not have lower turnover than those that without childcare practices. In fact, those with a higher prevalence of onsite childcare reported higher turnover. There are several possible explanations for this unexpected result.

One possible though unlikely interpretation of this finding is that childcare WFPs cause higher turnover. This could be true if establishments with childcare practices attract employees that are more likely to turnover. For example, this result might occur if establishments with childcare practices attract more employees with children who plan to exit the workforce in the future. This interpretation is unlikely to be accurate as it is inconsistent with strategic HRM theory and the within-establishment and combined analyses. Another more plausible explanation is that establishments with the highest levels of turnover are most likely to adopt the childcare practices in the first place, in order to drop their presumably problematic turnover rates.

The between-establishment analysis, typical of most strategic HRM studies, does not provide sufficient empirical justification for either argument on its own. The latter explanation is supported by the within-establishment analyses. These analyses show that in the years establishments do have childcare practices in place, they tend to have significantly lower levels of turnover compared to the years in which they do not. Together, these two effects provide a bit more insight into the nature of the relationship between childcare practices and turnover.

The between-establishment coefficients are therefore best interpreted not as the effect of a childcare practice on turnover but rather as the relationship between turnover and childcare offerings. In other words, it tells us which establishments offer childcare but not necessarily whether childcare is effective at reducing turnover. The results suggest that it is high-turnover
establishments that are implementing childcare practices. This makes sense intuitively as establishments with turnover problems are likely to be looking for solutions. Furthermore, the larger coefficient for female turnover, in partial support of Hypothesis 3a, suggests that establishments with female turnover problems are even more likely to adopt childcare practices. These results also suggest that childcare practices might be offered more typically on a needs basis rather than as a reward for high performing employees or because the organization itself is performing better. This may not be the case for other strategic HRM practices. There is at least some evidence to suggest that the causal relationship between practice and organizational performance may vary from one practice to the next (Van Iddekinge et al., 2009).

As such, the practice of continued contact during parental leave exhibits a very different relationship with establishment turnover, emphasizing the importance of examining practices separately. While there are no within-establishment relationships, and although the relationship is not robust to the combined model, there is a negative between-establishment relationship with turnover of males. This suggests that establishments with lower male turnover may be more likely to offer parental leave contact. This practice may be more attractive to men because they are generally more likely to return to work after parental leave than women, and for men who wish to use part of the three total years of unpaid parental leave available between parents, this practice makes a return to work easier. An easier return to work is also better for the establishment because it can prevent the need for bringing returning employees up to speed with information they may have otherwise missed.

However, the lack of within-establishment effect suggests that this practice may not be as important to employees as childcare practices. Changes in this practice were not associated with changes in turnover levels. This pattern of results also suggests that the low turnover of men may
be driving the adoption of the policy rather than the other way around. Also of note is that even though the between-establishment relationship was statistically significant for men and differed between men and women, these relationships were not robust to the combined model.

The within-establishment coefficients are better suited to telling us what WFPs do in a given establishment. They represent a natural experiment in which we observe a number of changes in practices and turnover levels within an establishment. While the number of practice changes is relatively small, as shown in Table 3.3, the large sample provides sufficient incidence of these changes to test their relationship to turnover. The within-establishment coefficients support strategic HRM theory in that the adoption of childcare practices are associated with reduced turnover.

The lack of a statistically significant difference in the WFP coefficients for the within-establishment male and female turnover models suggest that WFPs are similarly beneficial for both men and women, even if they appear to be adopted more commonly when female turnover is higher. This finding may be in part due to the erosion of traditional gender roles. For dual earner couples, it may not matter much which spouse’s establishment offers childcare practices as both partners benefit. A woman may benefit from having a partner who works in a childcare offering establishment just as much as if her establishment did as either way childcare is provided, allowing both parents to work full time without constraint. Similarly, men may benefit from childcare practices just as much as women as they begin to take on more caregiving responsibilities on average.

Together, the results of the three models suggest that childcare practices may be able to reduce the German childcare gap in a way mutually beneficial to both employees and employers. Furthermore, the use of these practices may be especially helpful in keeping women in the
workforce who might otherwise use the Betreuungsgeld monthly childcare allowance to remain at home longer after a child’s birth. If Betreuungsgeld’s critics are correct that it will dissuade mothers from rejoining the labor force after childbirth, then establishment childcare practices will likely become even more effective turnover deterrents for those on the margin. For low-wage mothers who would not lose substantial income from taking Betreuungsgeld instead of working, having access to a reasonable establishment-driven childcare option may make continuing work a competitive option.

The issue of Betreuungsgeld and even the existence of a childcare gap in Germany highlight the importance of considering the public policy context in evaluating the strategic plausibility of HRM practices (Piszczek & Berg, forthcoming). Even though there is a substantial childcare gap in Germany, other Western countries have even less institutional support for childcare. In the United States, maternal leave is limited to 12 unpaid weeks and there are no public daycare options for young children. In such countries with weaker childcare support, childcare practices may be even more strategically effective in reducing turnover and attracting applicants, as there is a larger potential labor market with unmet needs. On the other hand, the current high levels of unemployment in the United States make turnover and applicants less of a problem to begin with. Based on the current study, establishments thus may be even less likely to adopt childcare practices in the U.S. compared to Germany as turnover may be less problematic, but they may find them to be more effective when they do.

Country-level economic factors are also tied to these decisions and may impact the results. Countries in poorer economic conditions, whether because of economic downturn or more permanent reasons, may have trouble offering expensive public childcare options. In these cases, employers may not necessarily be willing to pay the cost to offer them either. Similarly,
when the labor force is economically stronger, employees can afford private daycare more easily and the impact of establishment-sponsored childcare may not be as strong. In a particularly weak labor market, the effects of establishment-sponsored childcare may also be weaker as employees will be less likely to quit their jobs regardless of childcare options as the prospect of finding alternative employment might be more difficult. Overall, further research is needed to understand how the economic climate may impact the relationship between establishment work-family practices, public work-family policy, and employee turnover.

3.9 Limitations and Conclusions

The current study has a number of limitations. Most notably, it does not use individual level data though a number of non-organizational, individual factors might influence turnover at the individual level. The sampling frame helps to eliminate this issue. Though it is not possible to randomly assign childcare practices to an establishment, the stratified random sample of establishments helps ensure that individual-level causes for turnover are distributed evenly across childcare and non-childcare establishment-year observations. Similarly, reason for turnover cannot be examined. It may be the case that childcare practices affect an employee’s performance and therefore likelihood of involuntary turnover, but involuntary and voluntary turnover cannot be differentiated in the present study. A second limitation is the surveys used rely on information from a single informant whose knowledge of organizational practices may not be complete. Though establishments were instructed to have a knowledgeable person provide the information and should have given the survey’s ties to government, taxes, and social security, not all may have done so. Finally, the values for turnover come from only the first half of the year due to the timing of the survey. Though I control for several aspects of establishment performance, large-scale turnover events such as layoffs or seasonal employment may have
influenced the turnover counts or resulted in major fluctuations in turnover during the second half of the year which cannot be accounted for in the data.

Despite these shortcomings, this study makes several contributions. First, it provides a more nuanced and more generalizable analysis of the relationship between establishment childcare practices and turnover of men and women in Germany. The study provides evidence for the strategic value of childcare practices in the context of Germany, as the results suggest that childcare practices are associated with reduced turnover levels in establishments with higher average levels of turnover. This argument is consistent with strategic human resource management theory. This study also provides a contribution to the ongoing debate of the causal relationship between strategic human resource management practices and organizational performance. By parsing the analysis into within-and-between establishment components and including establishment fixed effects, I show that the reverse-causation argument that childcare practices are adopted by high-performing organizations is not supported. On the contrary, childcare practices are adopted by organizations with typically higher levels of turnover.

Finally, the study answers the call for more contextualized international work-family research by providing an in-depth discussion of how environmental factors such as public policy, labor market demands, and family culture interact to create strategic opportunities for employers. Future research should seek to identify other country contexts with similar or different environments regarding childcare to further examine whether the context affects the strategic effectiveness of childcare policies. Future research should also seek to identify whether other types of WFPs might hold strategic value in Germany and similar contexts.
4 An Integrated Organizational Work-Family Response Framework

4.1 Introduction

In Chapter 1, I introduce three frameworks describing the organizational work-family response developed in the 1990s: institutional pressure, rational choice, and agency. I discuss the strengths and weaknesses of each framework in the context of current research. The institutional pressure framework (Goodstein, 1994, 1995; Oliver, 1991) provides insights about why organizations choose to adopt work-family policies and practices or not, but does not discuss how policies are chosen or implemented. The rational choice framework (Glass & Estes, 1997; Osterman, 1995; Seyler et al., 1995) emphasizes the importance of business outcomes, but does not say much about what factors go into the decision of whether a particular work-family policy or practice will be cost effective. Finally, the agency perspective (Kirchmeyer, 1995) considers the ability of the organization to choose the specific policies and practices they adopt and their different meanings for employees, but does not discuss how the decision to adopt them is made or how they are implemented.

In order to have stronger theoretical grounding at the organization level, researchers can borrow ideas from these frameworks, update them, and integrate them with knowledge of the work-family interface gained from more current research. Research with stronger organization-level theory can help explain complexities in work-family policies and practices (e.g. uneven application of policies across different employee groups) and raise new research questions about how work-family policies and practices are chosen, implemented, and related to organizational success. Organization level theory will also help answer scholars’ call for more research supporting the business case for work-family practices (Kossek, Baltes, et al., 2011; Kossek &
Friede, 2005) by helping explain how and when organizations can successfully implement work-family policies and practices.

The goal of this concluding chapter is to integrate the three organizational work-family response frameworks discussed in Chapter 1 with current literature in order to generate a more useful organization-level theoretical framework that will further both individual and organizational work-family research. First, I will discuss the previous two chapters of this dissertation in the context of the organizational work-family response and as evidence for the need of an updated, integrated organization-level framework. Second, I discuss the benefits of an updated framework and why it is critical to have theoretical foundations for organization-level work-family policy decisions for the continued growth of both the organization and individual work-family literatures. Third, I will introduce the integrated framework and describe it in depth, specifying precisely how it integrates the strengths of previous frameworks with current work-family knowledge. Fourth, I discuss how the new integrated framework can be used in future research, including areas it highlights as research gaps and potential questions it raises for further investigation. Fifth and finally I offer some concluding and summary thoughts about this dissertation as a whole.

4.2 Chapters 2 and 3 and the Organizational Work-family Response

The previous two chapters, much like other current studies with an organizational component, contribute to the goal of developing a new organizational work-family response framework. Each chapter stands on its own as a distinct empirical study, but each also contributes theoretically to a more complete organizational work-family response framework that can explain complex patterns of work-family policy and practice adoption and implementation within and across organizations. Both chapters’ studies address ways that organizations respond
to their employees' work-family needs. Each study makes its own empirical and theoretical contributions to specific aspects of this response, thus also contributing to narrower work-family literatures. Each study also shows that previous frameworks require updating to be useful to and consistent with current work-family research. The study presented in Chapter 2 demonstrates the need to account for organizations that respond to employees’ competing role demands by attempting to control their non-work roles. Similarly, Chapter 3 shows the importance of considering the broader environment and related pressures when examining the adoption and effects of work-family practices. I begin by summarizing each of the two empirical studies, and then discuss in greater depth how they demonstrate the need for an integrated, multi-stage organizational work-family response framework.

Chapter 2 is a study of organizational pressure to use interactive communicative technology to perform work role tasks while physically in the family domain. As technology continues to become more efficient and more portable, research on this topic is becoming more important. Yet, the role of technology is under-researched in the work-family domain. This chapter discusses the research showing how information and communicative technologies can have conflicting outcomes. They may either help employees work with more physical and temporal flexibility or contribute to more time spent working and invasion of work into other life domains. Only recently have these perspectives been combined, typically using the job demands-resources perspective (e.g., Derks & Bakker, 2010), and few studies have examined the part of the organization in setting expectations around after-hours technology use in the form of after-hours electronic communications expectations (Fender, 2010; Fenner & Renn, 2010).

The study builds on recent research utilizing the job demands-resources perspective to shed some light on the conflicting observed effects of use of information and communicative
technologies for work purposes while at home. The study adds theory to explain the mechanisms through which technology can function as either a job demand (firm technical control) (R. Edwards, 1979) or job resource (boundary theory) (Nippert-Eng, 1996). Using these theoretical explanations, the study argues that one key determinant in whether technology is experienced as a demand or resource is organizational pressure to use it in certain ways, i.e. for work purposes after normal working hours.

Importantly, the study also explains that this pressure might not affect the experience of information and communicative technology use equally for all employees. Thus, it considers how this pressure is experienced by individuals with different work-family role management preferences. Findings support an overall positive relationship between organizational expectations for after-hours technology-based work and employee emotional exhaustion, which is subsequently linked to turnover intentions. However, this relationship is largely driven by segmenters, the employees who wish to keep work and family domains distinct in their lives. Integrators, i.e. those who prefer to amalgamate their work and family roles, are largely unaffected by these pressures. Overall, this study contributes to the small but growing body of empirical research explaining the conflicting potential effects of after-hours technology use and sheds some light into the question of when and why technology use may have either desirable or undesirable effects on employee well-being. Finally, it highlights the importance of organizational policy around after-hours electronic communications.

Chapter 3 also makes substantial contributions to its more narrow literature of work-family practices as components of a strategic human resource management system. This study adds to the body of research supporting the empirical link between adoption of a work-family practice and desirable organizational outcomes, specifically demonstrating a link between the
adoption of a childcare practice and reduced turnover at the organization level. It contributes to the limited body of research examining the relationships between organizational turnover and the specific work-family practices of organization-sponsored childcare and parental leave contact.

The study highlights the importance of context by discussing at length the reasons that childcare and parental leave contact may harbor strategic advantage. It reviews German public policy surrounding early childhood daycare and education in order to demonstrate its undersupply for the current German labor market, which is expected to include more women in the future. This can help explain why research sometimes finds work-family policies to be linked to desirable organizational results, but other times fails to find this link; there must be sufficient demand for a practice in order for it to hold strategic value. In this case, the demand is in part due to the lack of public options surrounding childcare.

Another important contribution of Chapter 3’s study is the analytical strategy accommodated by the large multi-year dataset. Because multiple observations were available for each establishment in the sample, variation in turnover can be partitioned into two components. Thus, work-family policies are linked to variation in turnover between different establishments and to variation in turnover within an establishment as it changes its practices over time. An interesting pattern reveals itself; while the adoption of a childcare practice is associated with a reduction in turnover within an establishment, establishments with higher levels of turnover are more likely to have such practices. By analyzing each variance component separately, a much stronger argument can be made as to the causal direction of the relationship between practice and performance. This has been an area of controversy in strategic human resource management research (Wright et al., 2005). This pattern of results suggests that while childcare policies are effective in reducing turnover, they are necessarily not being adopted to strategically reduce
turnover. Instead, they are more likely to be adopted in order to address problematic levels of turnover.

Each study can therefore stand on its own empirical and theoretical merit, contributing to narrower work-family research literatures. Despite this, both studies have one important thing in common: they are each concerned with a way an organization can respond to the work-family needs of employees which is not explained by existing organizational work-family response frameworks or current individual-level research. In order for a framework to be useful, it must be able to explain these complex patterns of work-family policy and practice adoption and implementation.

Though electronic tethering to an organization has received individual-level research attention as technology has continued to evolve (e.g., Renaud et al., 2006; Richardson & Thompson, 2012; Turkle, 2007), the organization-level component of Chapter 2’s study (after-hours electronic communications expectations) has only recently received research attention, largely in terms of conceptual development (Fender, 2010). This type of general response to employees’ work-family needs—manipulation of the non-work domain—is unaccounted for in any existing organization-level work-family frameworks.

Given the results of Chapter 2 that show its importance in influencing individual outcomes such as work-family conflict, emotional exhaustion, and turnover intentions, it is critical for researchers to understand the antecedents to the adoption of such a practice. Why would an organization seek to manipulate its employees’ working time? What are the conditions that allow such manipulation to manifest and remain unchallenged? Are there other options under such conditions that may be mutually beneficial to both the organization and its employees? An integrated multistage framework that includes this type of organizational practice
and links it to environmental characteristics and policy implementation can help answer some of these questions by elucidating why employers might not offer work-family practices or policies or pressure employees to use their non-work time for work purposes.

Chapter 3 also supports the need for an organization-level integrated framework. It shows that the rationale for adopting a particular work-family practice can be the result of a rich interaction of contextual factors. Recent research suggests that these contextual factors are frequently simplified or ignored in research, resulting in the misattribution of policy effects and misinterpretation of study results (Piszczek & Berg, forthcoming).

Chapter 3 is grounded in a strategic human resource management perspective, and while it does show that the adoption of childcare practices is associated with lower turnover, it also shows that the adoption of childcare practices is associated with high-turnover establishments. This is most consistent not with a strategically motivated policy adoption but rather a labor force pressure based policy adoption. Further complicating the matter is that the lack of public policy surrounding childcare increases the labor force pressure on organizations to adopt them instead. These contextual nuances in the adoption of a work-family policy or practice may affect the way a policy or practice is implemented, but such nuances are not accounted for in existing organizational work-family response frameworks and are largely absent in most individual and multi-level studies (Piszczek & Berg, forthcoming).

4.3 Benefits of an Updated Framework

There are numerous advantages to revitalizing the organization-level work-family response framework. Most importantly, a new framework that integrates the key concepts from previous frameworks with newer knowledge of the work-family interface can be useful for grounding and contextualizing future organizationally focused work-family research. It can also
drive new research by clarifying links between organizational and individual level phenomenon and identifying organizational and environmental contingencies in the effectiveness of work-family policies and practices. It raises questions about how work-family policies are chosen and implemented within and across organizations, what organizational and institutional contextual factors impact their effectiveness, and how best to connect a work-family policy or practice to the goals of the organization. As one study explains, “Without a generalizable theory of contingent response to pressures for work-family programs, the field is left with isolated findings that often seem to contradict each other” (Ingram & Simons, 1995). However, little progress has been made in this regard in the last 20 years. As an example, one recent study of an organizational work-family intervention sought to customize the intervention for each branch of the target organization, but noted that "adaptation across sites does not fit neatly into scientific paradigms" (Kossek et al., 2014). Few studies have examined the work-family response as an organization-level phenomenon, and those that have largely characterized it as response to institutional pressure without accounting for organizational strategy, practice implementation, or even different types of practices.

Instead, work-family research has focused on the effects of particular practices on individual employees. By focusing on the effects of work-family policies and practices at primarily the employee level, researchers have struggled to classify them into a meaningful system that can be easily and consistently applied to research and practice at the organization level. Organizational practices are typically classified not by their purpose but rather by functional ways they affect employees. While there is value to organizing work-family practices in this way, such as by whether a practice grants flexibility in timing of work, place of work, amount of work, or short-term breaks in work (Kossek & Michel, 2011), or as encouraging
integrating or separating (Rau & Hyland, 2002; Rothbard et al., 2005), this value lies primarily at understanding how they affect individual employees. There is also value in considering the organizational rationale for the adoption in order to better define and predict the success of a particular practice and whether it will be used as expected by employees.

Grounded at the organizational level, a work-family response framework shifts the focus from how policies and practices affect employees to how policies and practices fit within the broader vision of the organization. Viewing a practice in the context of such a framework raises new questions, as it allows organizations to assess the consistency of that practice with its high-level human resource management goals and create synergistic packages of practices that reach them. This answers the call for human resource management research that considers uneven policy and practice application within organizations and identifies contingencies that impact effectiveness (Kaufman, 2010).

Similarly, an updated framework will allow practitioners and researchers to compare and contrast systems of work-family policies and practices across organizations. Understanding practices with more organization-level context would contribute to studies of work-family practices grounded in strategic human resource management (e.g., Chapter 3) which are growing in popularity but struggle to demonstrate when and why particular work-family practices are strategically viable. In other words, an integrated framework can help put boundary conditions around the strategic value of work-family policies and practices by identifying the contexts in which they work best. Similarly, such a framework can help avoid study interpretation problems due to misattributing practices to an organizational strategy when they may be the result of another motivation, such as compliance with the law (Piszczek & Berg, forthcoming).
As an example, consider an organization that has decided to start a work-family initiative because it is losing its young up-and-coming engineers to other companies. There are many ways this initiative could be enacted: flexible work hours, onsite childcare, a work-family supportive culture, and family-supportive supervisor training are just a few examples that have been empirically linked to more desirable employee outcomes such as increased perceptions of organizational work-family support and lower work-family conflict (e.g., Allen, 2001; Frye & Breauagh, 2004; Hammer, Kossek, Yragui, Bodner, & Hanson, 2009; Rau & Hyland, 2002).

Considering all the potential effects of work-family policies and practices, an often unconsidered question is which effects are most consistent with the organization’s goals? Furthermore, what is the most cost-effective way or implementing such an initiative in order to achieve those goals?

If the organization is only concerned about its engineers as key strategic employees, onsite childcare may be prohibitively expensive if it is implemented broadly such that other employees can access it as well. At the same time, if only engineers are permitted access it may create resentment or perceptions of injustice among other employees. A broad work-family supportive organizational culture may encourage other employees for which there is no turnover issue to sacrifice their work tasks for family tasks, potentially creating new staffing problems. On the other hand, flexible work hours for engineers or training engineering team leads or supervisors to better help the employees manage work-family demands may help reduce turnover intentions of young talented engineers without affecting other employees. The source of the pressure to adopt a policy in the first place and the expected results of its adoption play a key role in how the policy is implemented, but current research does not consider these important organization-level factors.
Contrast the previous example with one of a similar company also planning a work-family initiative, but for the purpose of putting forth a family-friendly image to customers rather than retention of an employee subgroup. Customers may perceive numerous types of policies and practices as family-friendly, but some are more visible and easily publicized than others. The general public may not hear much about family-friendly supervisor training, but an organization may find more formalized practices such as shorter working hours easier to publicize and help impart desired organizational legitimacy on the public. Organizations such as Chick-fil-A and Hobby Lobby are well-known for being closed on Sundays to allow employees time for their non-work roles. Similarly, as more retailers have begun to open their doors on the Thanksgiving holiday, many organizations such as Costco, Nordstrom, and Menard’s refuse, publically declaring that they want their employees to be able to celebrate the holidays with their families (Davis, 2013).

As another example, consider the practice of flexible work hours. Studies of flexible work hours have linked it to different types of organizational response. Goodstein (1994) argues that its presence (without childcare practices) is evidence of a broader “avoidance” response while Rau and Hyland (2002) suggest it supports a broader “integration” response. In fact, flexible work hours can support a variety of organizational work-family goals. If this practice is adopted as a retention strategy, then it should be linked to reduced turnover. If it is adopted as an attraction strategy, it is more important to link it to an increase in job applicants regardless of its effect on turnover. If it is adopted as part of a corporate social responsibility initiative, the key outcome is employee well-being or perceptions of organizational legitimacy, and organizational performance is a less proximal outcome. If it is part of a marketing campaign to appeal to consumers then sales are more important. Even though flexible work hours are linked to a variety
of desirable outcomes, if an organization's implementation of its chosen strategic response includes flexible work hours, the rationale behind the adoption of that strategic response determines which outcome defines the practice’s success from an organization’s perspective. Briefly stated, a successfully implemented practice addresses the pressure that led to its adoption in the first place, but there is no way to define success without knowing the goal and thus the pressure.

Another advantage to an updated framework is the resulting clarity of theoretical mechanisms linking organizational practices to relevant individual outcomes, as research suggests that the motivation behind a work-family practice’s formulation plays a key role in how it is implemented (Piszczek & Berg, forthcoming). An integrated framework can link the entire chain: the initial pressure to adopt work-family practices, the policies chosen to respond to the pressure, the implementation of the policies, and their expected organizational and employee outcomes. Such a framework is holistic in that it is based on a multi-stage perspective of organizational work-family policy adoption and implementation.

Additionally, most work-family role management theories are focused on the individual level (e.g. boundary theory, border theory) (S. C. Clark, 2000; Nippert-Eng, 1996). A framework that includes both the conditions that lead to the adoption of a work-family policy or practice as well as the different ways they might be implemented would help link organization-level phenomena into these individual level theories by clarifying which individual-level mechanisms organizations should be seeking to activate through their policies and practices. Identifying the links and mechanisms address recent calls for research and theory bridging the macro and micro human resource management literatures (Becker & Huselid, 2006; Huselid & Becker, 2010).
Finally, such a framework would help to more richly contextualize an organization’s work-family policies and practices. This would make for easier comparisons among different systems of work-family policies and practices across departments, organizations, and countries. Similarly, it would make contextualization of a study or a particular type of work-family policy or practice easier and produce more accurate generalizations of a study’s results to other organizations. Given the importance of contextual factors such as the public policy environment in the implementation of organizational work-family practices and policies (Piszczek & Berg, forthcoming; also see Chapter 3), having a framework to organize organizational policies and practices that includes these types of pressures facilitates comparison across them and responds to critiques of the lack of institutional consideration in human resource management literature (Kaufman, 2010). The framework could also be used to compare practices on more than their content; for example, it would facilitate comparisons based on rationale for adoption, organizational goal, definitions of success, consistency or method of implementation, and accessibility.

These theoretical contributions also benefit human resource managers involved with strategic decisions. An integrated framework can help practitioners make better decisions about how to deal with the need for a work-family response. As the business case for work-family policies and practices remains unclear due to mixed empirical links to organizational business outcomes and a lack of identified organization-level contingencies in policy effectiveness (Beauregard & Henry, 2009; Bloom et al., 2010; Konrad & Mangel, 2000; B. Lee & DeVoe, 2012; Perry-smith & Blum, 2000), practitioners would benefit from additional guidance in determining which types of practices and policies might best suit their needs, and how those practices and policies should be implemented. An integrated multi-stage framework would allow
practitioners to more easily identify the institutional pressures they face, what policy strategy they should pursue, and how to implement that strategy. Without an integrated framework, these links are scattered and unconnected in research, making work-family policy decisions difficult.

Considering these arguments and examples, the benefits of an integrated organizational response framework are clearer. There are many ways a particular organizational work-family policy or practice might be implemented and specific practices and policies may be compatible with multiple organizational goals. Researchers need a more intricate, multi-stage framework to better distinguish between the different forms of the organizational work-family response and what practices and polices (or lack thereof) are consistent with such a response. Researchers also need a framework to systematically link organization-level strategy to actual policies and practices. Current frameworks are both too broad and too narrow to accomplish this task. They are too narrow in that a contextualized view of the organizational work-family response is absent in any single framework, and they are too broad in that they do not distinguish between the many ways a chosen response can be enacted and which organizational goals such a response might best serve.

4.4 An Integrated Organizational Work-family Response Framework

Figure 4.1 presents the updated, integrated organizational work-family response framework. This expanded framework brings the previous work-family response frameworks in line with current research and theory, including insights gained from Chapters 2 and 3 of this dissertation, and integrates key components of the institutional pressure, rational choice, and agency frameworks. The updated framework links the critical concepts from each framework and updates them to be consistent with current research. Importantly, the framework outlines the process of determining whether or not to adopt a particular policy or practice, and what form that
policy or practice should take. The framework therefore accounts for an organization’s response to work-family pressures but can be revisited any time to consider new specific policies and practices when pressures change or to create synergistic systems of work-family policies and practices.

The framework takes the form of a multi-stage model, and is split into four main components, represented by the large boxes. The top-most box consists of environmental components which contribute to the pressure to adopt work-family practices an organization experiences. The second box is policy typing, in which organizations determine precisely which practice or policy might best meet their goals and thus warrant consideration for adoption. The third box consists of the strategic value an organization expects from that policy or practice. The bottom-most box is the implementation of that policy or practice. I next discuss each box, its development, and its link to previous and current literatures.

The "environment" box considers the broader institutional environment within which an organization operates. The box is informed by the main concept of the institutional pressure perspective, namely that organizations are responding to the general idea that employees have multiple roles. Institutional pressures can come in several forms; Oliver (1991) described five institutional factors defined in Chapter 1: cause, constituents, content, control, and context. These do not translate well to current research, particularly to the work-family domain. Goodstein (1994) used organizational size, proportion of female and parent employees, public sector status, prevalence of policies in a sector, and extent of sector professional organizations to respectively operationalize these five sources of institutional pressure. Such factors may contribute to an organization's felt institutional pressure, but more broadly considering more
recent research, public policy and labor market demands appear to be the key institutional forces contributing to institutional pressure.

Public policy pressures are higher when there are more regulative institutions requiring organizations offer particular work-family practices. Organizations in the United States experience less of this pressure than other Westernized countries. For example, the United States has no laws mandating paid vacation, which are common in Europe. Lack of adherence to these regulative mandates is often punishable by fines and restitution for affected employees, creating a financial incentive to comply. Public backlash is also possible and potentially damaging for organizations that do not comply with these mandates. Importantly, these policies and practices can also vary at the local level. More and more large cities in the United States are passing paid sick leave mandates, creating even more localized policy variation. Such public policies can be key drivers of organizational policy and practice adoption and set minimum standards for an organization to distinguish itself from another through these policies and practices (Piszczek & Berg, forthcoming).

Labor market demands for the adoption of work-family policies and practice are higher when an organization's labor pool places high value on such practices. This is best exemplified as a drive to create person-environment fit among employees, which is predictive of desirable outcomes such as lower role conflict (Z. Chen et al., 2009; Kreiner, 2006). As younger workers tend to place more value on control over their work-family boundaries (Burke, 2004; Cleveland & McCarthy, 2013), organizations seeking young talent may feel more pressure to adopt work-family practices. On the other hand, organizations that draw from a broader labor pool, or perhaps have the benefit of an excess supply in the labor market, experience less pressure. These organizations should be able to find the employees they seek without consideration of work-
family practices and policies. Additionally, employee unions can and do seek provisions providing work-family practices and policies through collective bargaining (Berg et al., 2013; Berg, Kossek, Misra, & Belman, 2014; Berg & Piszczech, 2014; Glass & Fujimoto, 1995; Seyler et al., 1995).

Labor market demands also create pressure because they affect the work-family practice offerings of other organizations, including those competing for talent. Generating sustainable competitive advantage is a primary goal of strategic human resource management; with regard to work-family policies and practices, researchers generally agree that the key area in which this is possible is through the recruitment and retention of employees (Berg et al., 2003; Casper & Buffardi, 2004; Glass & Estes, 1997; Osterman, 1995; Rau & Hyland, 2002). Thus organizations that wish to compete on these dimensions experience pressure through the policies and practices of their competitors. In sectors where work-family policies and practices are generally not offered, there will be much lower pressure on any one organization and relatively less extensive policies and practices can hold strategic value. On the other hand, if organizations within an institutional environment commonly offer some practices, potential applicants may grow to expect them and thus the pressure to offer them rises. Through benchmarking, organizations will ensure that they do not fall too far behind their competitors in offering human resource management practices that might help attract or retain employees. For example, though vacation leave is not legally mandated in the United States, many employees expect to be able to take a temporary leave from work from time to time and this practice is commonly offered by organizations.

Pressure to adopt work-family policies and practices can thus be explained at a general level with these two variables. Complicating things, however, is that these pressures are closely
interrelated; labor market demands for certain work-family policies and practices define what policies and practice have competitive potential, and public policy creates a baseline from which organizations must determine what practices might be able to differentiate them from competitors (Piszczek & Berg, forthcoming). When an organization is considering the adoption of a work-family policy or practice, the exact nature of this experienced pressure will play an important role in determining which types of policies and practices might best align with organizational goals. For example, in an institutional environment where public policy mandates that organizations offer one year paid maternity leave, an organization may be unlikely to adopt an additional one month of paid maternity leave as it may be insufficient to differentiate itself from other organizations. In another context where there is no mandated maternity leave at all, such as in the United States, one month paid maternity leave may have enough of an impact to bring additional attention to the organization as a choice workplace considerate of its employees' family role demands.

This leads to the second box: policy typing. Typing is the process by which an organization determines the specific type of work-family policy or practice that might best assuage the pressures it faces. This box is primarily informed by the agency perspective, which attributes choice to organizations. This perspective suggests that there are many potential ways for organizations to react to similar institutional pressures, and various organizational factors will contribute to precisely how an organization will react to them. The first critical aspect of this choice is the type of policy or practice to consider offering. In this model, I use one existing typology of work-family practices developed by Kossek & Michel (2011), but any typology of work-family policies and practices, including informal ones, may fit within the typing box. The key is that the typology includes policies that address the pressures specific to the organization.
Though the possible combinations of pressures and policies are too numerous to discuss in depth, I provide several examples.

The simplest such example is an organization that faces relatively little labor market demand but high public policy demand. Such an organization might be in a context in which the government requires organizations to provide many work-family practices, making it more difficult to use them as a source of competitive advantage but also creating less labor market pressure due to its needs being largely met by those practices. With the key pressure therefore being public policy, an organization would choose practices that directly address the public policy mandate. As another example, consider an organization experiencing little public policy pressure, but high pressure from the labor market. The organization might then attempt to offer a variety of policies to attract a diverse pool of talented applicants and better differentiate itself from competitors.

A more complex example is an organization facing both pressures. In the best case scenario, the talent it seeks to recruit away from its competitors will tend to place a high value on certain work-family benefits that are required by law, e.g. sick leave. If the organization’s competitors are not offering extensive sick leave policies, it can meet both pressures with a generous sick leave policy that is more extensive or easier to use for the target applicant pool. If the law requires a policy that is less directly related, for example paid maternity leave in a largely male labor pool, the organization will likely have to offer multiple policies and practices.

A similarly complex but likely example is the organization actively seeking to competitively recruit using work-family policies and practices. In order to provide a policy or practice that can accomplish this goal, it must be desirable to the target labor pool. Thus, the primary pressure comes from the labor market demands. In order for there to be room for
competitive advantage, similar policies must not be in place by competitors or mandated by public policy (Piszczek & Berg, forthcoming). The policy type chosen will be the one that best meets the target labor pool’s demands and differentiates the organization from its competitors.

The typing box and its ties to the environment box have close links to the existing strategic human resource management literature. Chapter 3, grounded in this literature, provides an example. In Chapter 3, I argue that there is a lack of public childcare in Germany, but that childcare is desirable to working parents. Thus, I argue that organizations can leverage these policies to reduce their organizational turnover and create strategic value. The results suggest that organizations are adopting childcare practices only when turnover is already high, i.e. in response primarily to labor market demand rather than to generate competitive advantage. But, by showing a decrease in turnover following the adoption of a childcare practice within an organization, the study demonstrates that these labor market demands are being met.

The interchangeable nature of the work-family policy and practices typology in this box is echoed when using this framework expressly for research. Given the numerous content-based classification systems, their usefulness in research will largely depend on the theoretical context of the study. For example, a study grounded in boundary control theory may wish to differentiate policies and practices by the degree employees tend to use them to either integrate or segment work-family roles. In a study of telecommuting which places importance on both temporal and physical flexibility, these categories might be combined. Researchers should make theoretically grounded decisions of what typology to use if including this framework in a study.
Figure 4.1: An integrated model of the organizational work-family response

- Temporal Flexibility
- Physical Flexibility
- Workload Flexibility
- Employment Breaks

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Environment

Policy Typing

- High Institutional Pressure
- Low Institutional Pressure

Strategic Value

- High Strategic Value
- Low Strategic Value

Cost-Effectiveness of Work-Family Practices

- Strategic Adoption
- Symbolic Adoption
- Compromised Adoption
- No Adoption

Implementation

- Strong
- Weak
- Mixed
- None
Many factors will determine the policy typing determined to best match the organization's needs aside from institutional pressures. One such factor, implicit in the consideration of the source of institutional pressure, is the target of the policy or practice. Organizations often seek to attract diverse applicant pools which may have a variety of work-family needs, and work-family policies and practices should thus offer a variety of practices to satisfy various demographics in the labor market. On the other hand, if the pressure is from public policy, the target employees are usually well-defined by the legislation. Another important consideration for typing is the nature of industry and resulting organization of work in the organization. For example, policies such as flexible shifts are not plausible for employees whose work is not organized by shift. Similarly, healthcare organizations often require 24/7 staffing and so flexible work hours may not be an option if it would result in understaffing in unpopular hours. Knowledge-based work may be more amenable to telecommuting whereas other work requires physical presence in the work-place.

These two examples of factors which help determine how well a policy or practice matches an organization's needs (policy targets and organization of work) suggest contingencies in the effectiveness of work-family policies and practices. When policies and practices that do not match these potential contingencies are adopted, organizational and individual outcomes may suffer. For example, if an organization decides to implement flexible shifts but very few of its employees work on a shift system, the resulting impact on the organization may be negligible. Many other factors such as organizational size and sector (i.e. public or private) likely contribute to the match between a policy or practice and organization goals. As research continues to explore cross-level relationships examining the boundaries of work-family policy effectiveness, more of these factors will be identified. Moving through the framework, at this point an
organization has identified the degree to which it is experiencing pressure to adopt work-family policies and practices, what plausible practices might meet that pressure, and who to target the practices to in order to meet it.

The third box, strategic value, considers the actual net worth to the organization of the chosen policy or practice. This incorporates the rational choice perspective discussed in Chapter 1 by considering whether the policy or practice chosen through policy typing has the potential to help the organization's bottom line. As such, strategic value of a policy or practice is assessed by whether the organization expects it to be cost-effective. Based on the institutional pressure perspective, the importance of the perceived cost-effectiveness of a policy or practice is intensified by the pressure an organization experiences to adopt it. Thus, in the strategic value box, the expected cost-effectiveness for work-family practices and policies appears twice: once under organizations experiencing high institutional pressure and once under those experiencing low pressure.

This is similar to the institutional pressure perspective which creates a two by two matrix of institutional pressure and expected technical outcomes (Goodstein, 1994), however I do not adopt all its descriptions of organizational work-family response strategies, which do not immediately link to the extent a specific policy or practice is implemented but rather broadly describe the way policies and practices are offered holistically. The institutional pressure framework used the terms acquiescence, avoidance, compromise, manipulation, and defiance to describe the broad response patterns of organizations to institutional pressure to adopt work-family practices.

Instead of using concepts from these frameworks, I use four categories which include aspects of these holistic responses, but describe how a specific policy or practice is to be
adopted. These adoption styles are directly tied to the extent of a specific policy's or practice's implementation, the subject of the fourth box. As such, I describe strategy and implementation together. Implementation of a policy or practice has three key dimensions that will determine how it affects employees: policy awareness, policy access, and policy extent. Each form of adoption leads to a specific style of implementation along these three dimensions.

The first adoption style is strategic adoption. Strategic adoption occurs when the pressure to adopt a particular practice or policy is high, and the organization expects such adoption to be cost-effective. In this case, there is no immediate perceivable downside to implementing the policy or practice and the organization should seek the strongest level of implementation possible. Strong implementation is characterized by high awareness of a practice or policy among employees, broad coverage of the policy granting many employees access to it, and high practice quality in terms of its relative generosity to employees compared to those offered by other organizations. An organization that is able to utilize strategic adoption can also expect the most desirable results from such implementation for both employees and the organization. These outcomes will be dependent on the policy (e.g., T. D. Allen, Johnson, Kiburz, & Shockley, 2013; Kossek, Pichler, Bodner, & Hammer, 2011).

The second adoption style is symbolic adoption. When institutional pressure to adopt a particular work-family policy or practice is high, organizations are more compelled to offer such policies and practices and may find it difficult to offer nothing. However, if they expect these policies and practices to be hurtful to the organization, they may opt to only partially implement them or to implement them to as little an extent as possible. This can occur if the policies or practices determined to best face the pressures are financially expensive or require additional coordination or staffing that would outweigh the benefits. Organizations considering symbolic
adoption expect heavy fixed or recurring expenses with a policy or practice, extreme coordination problems, or cultural pushback from such policies and will seek to minimize these costs. Weak implementation may include symbolic or token offering of work-family policies or practices, especially those required by law. Weakly implemented practices are characterized by minimal employee awareness of their existence, narrow coverage of employees, difficulty of access for those few that are covered, and minimal benefits. Organizations can have policies and practices on paper but achieve weak implementation in a variety of ways. Supervisors, often viewed as an extension of the organization by employees, may make policies difficult to access (Casper, Fox, Sitzmann, & Landy, 2004; Eaton, 2003). Similarly, they may stigmatize employees that are able to access work-family benefits as uncommitted to the organization (Greenhaus & Kossek, 2014; Hewlett, Sherbin, & Forster, 2010).

The third category is compromised adoption. In this category, organizations expect benefits of adopting work-family policies and practices, but such benefits may be limited by low demand for them. Organizations in this category may be sector leaders, adopting minimal levels of policy which ultimately create competitive pressure on other organizations to do the same. However because an organization in this category faces little such pressure, it can expect desirable results of implementing a policy less extensively than an organization facing high institutional pressure. Thus, the level of implementation is mixed. Because the policy and practice is expected to be beneficial to organizational outcomes, the key difference is likely to be in the quality of the policy or practice rather than its ease of use or employee awareness of it. Mixed implementation is thus characterized primarily by broad-reaching policies and practices of limited generosity. Given the limited demand for such policies and practices, marginal returns on their adoption are low. A rare exception may be the case in which an organization is the first
to adopt a work-family policy or practice that was not in high demand by the labor market but subsequently creates that demand. Such cases, however, are few and far between and grow ever more unlikely as work-family policies and practices become more common.

The final adoption form, no adoption, is unique and thus appears somewhat separately from the other three in the model. It is unique in that it represents the absence of policies and practices. When organizations face little or no pressure to adopt work-family policies or practices, and they expect such policies and practices to be prohibitively costly either financially or otherwise, they will offer no work-family policies and practices at all. This is partially consistent with Kirchmeyer’s (1995) separation response category in that the organization ignores the non-work needs of employees. This may be either due to ignorance resulting from insufficient institutional pressure to bring such needs to the organization’s attention, or it may be purposeful as part of a strategy to manage employee working time.

Chapter 2 provides an example of the latter. Organizations which have high after-hours electronic communications expectations are able to compel employees to work during non-standard hours outside of the workplace because there is little pressure on them to provide a culture that values non-work time. These organizations may also consider the productivity costs of having lower after-hours expectations not to be worth the increase in employee well-being these lower expectations might provide. Thus organizations facing little-to-no institutional pressure and that perceive work-family policies and practices as potentially having a net undesirable effect on business outcomes will not offer any, and may even attempt to probe into employees’ non-work time.

Overall this integrated framework answers the call to bridge the macro-micro divide (Huselid & Becker, 2010) and adds organization-level theory to the work-family literature,
building on previous frameworks of the organizational work-family response in a way that is compatible with current research. It links organization-level factors such as institutional pressure and strategy to the actual adoption of a policy. It also explains differences in implementation of similar policies across organizations, and why within organizations employees may have different levels of access to work-family policies and practices. Next I discuss how this framework might contribute to and be used in future studies.

4.5 Using the New Work-Family Response Framework

Overall, this updated framework provides more detail and a multi-stage understanding of what organizational responses to employees’ work-family needs look like by explaining why policies and practices are adopted and the degree to which they are implemented. It integrates previous organizational frameworks and builds upon them to accommodate knowledge from more current research. This updated framework yields a number of possible opportunities for future research and practice.

The key contribution of this framework is that it links organization and contextual variables to the adoption and implementation of policies and practices. In doing so, it also connects organizational and contextual variables to individual and organizational outcomes associated with those practices. Such associations are plentiful as the investigation of the relationship between specific practices and their outcomes have been a primary focus of work-family studies over the past twenty years. In this sense, the biggest contribution of the framework is that it bridges the gap between employer and employee focused work-family research.

By bridging this gap, this framework helps researchers choose more theoretically relevant outcomes, i.e. those that best address the pressures an organization is facing. By thinking about practices and policies in terms of why they are adopted rather than their place in a typology of
practices, organizations and researchers can better measure their success by choosing outcomes most relevant to organizational goals. Though work-family practices are understood to increase employee attraction and retention, some organizations may be more focused on attraction and others retention. This also highlights the mechanisms through which specific policies and practices might lead to desirable organizational outcomes: by satisfying specific institutional pressures. Though many studies now use multi-level modeling to examine potential organizational or environmental influences, theoretical links from higher order constructs to the employee level are not always entirely clear as research has focused more on whether work-family policies work as intended rather than how they work (Odle-Dusseau et al., 2012). This framework reintroduces institutional pressures as potential higher level constructs which can influence the types of policies and practices implemented and the extent to which they're implemented, as described above.

Similarly, in linking important environmental and organizational characteristics to the adoption of policies and practices, the framework also helps identify boundary conditions around the effectiveness of these practices and calls for more careful consideration of organizational context in future research. Organizational and environmental contextual factors may help explain the results of previous studies, such as the unexpected positive between-establishment relationship between turnover and childcare policy prevalence in Chapter 3, or help guide the selection of potential moderator variables which may impact a policy's effectiveness in future studies. For example, a future study investigating the effectiveness of childcare policies may wish to include a measure of experienced turnover, recruitment problems, or industry prevalence of such policies, as the policy's effect may be stronger when turnover and recruitment are problematic or when such policies are less common among competitors. Better identification of
these boundary conditions can help explain why policies and practices may be beneficial to one organization but not another by putting a greater focus on the match between a policy or practice and its ultimate goal in the organization rather than on how an average employee experiences it.

Emphasizing the match between policy or practice and the pressure it is meant to address also helps practitioners and researchers define a successful implementation. It may help practitioners decide which policies and practices are plausible in a real-world situation and how to implement them. Practitioners can follow the figure from the top down to identify the pressures their organization is facing, the expected results of a policy or practice within the organization, and based on those factors, the degree to which the policy should be implemented. They may even choose to implement multiple practices and policies, perhaps differentiating between target employee groups, based on the pressures they face from different labor market segments, whether a group of employees is core to the business, or whether the labor market is shallow for certain skills. Once the appropriate institutional pressures, expected cost-benefit ratio, and desired degree of enactment are identified, practitioners can much more easily ensure that policies and practices are enacted consistently and synergistically with the organization's goals at the forefront.

Another key contribution of this framework for future research its ability to account for inconsistencies in work-family policies and practices both between and within organizations. Above, I mention that environmental and organizational factors included in the framework may explain inconsistent findings of relationships between specific work-family policies and practices and individual and organizational outcomes. Additionally, because the framework can be applied individually to multiple policies and practices, it can explain different levels of consistency in the offering of a policy within an organization. For example, the offering of a policy to one group of
employees but not another may be because only the former group was a source of pressure. This pressure may be a result of either the demographics of that employee segment or heavy competition for it, or perhaps both. But without considering the factors described in this framework, researchers are left to speculate on the source of these inconsistencies. This framework explains variation in implementation, allowing multiple policies and practices to be implemented differently even within a single organization. Strategic human resource management studies can use this framework to better identify policy contingencies and configurations (Delery & Doty, 1996) which may hold greater synergistic strategic value by considering the specific pressures they address.

Finally, this framework facilitates comparative study of work-family policies and practices from a different viewpoint. Researchers can use this framework to compare policies and practices, or configurations of policies and practices, by how well they meet specific institutional pressures and organizational goals rather than how they, for example, affect individual role boundaries. These types of comparisons are more useful for organization-focused research that seeks to better understand how work-family policies can be applied in a mutually beneficial way that helps employers as well as employees. This also helps answer the recent call of researchers to tie work-family policies more strongly to organizational goals (Kelly et al., 2008; Kossek, Baltes, et al., 2011).

The framework also identifies theoretical gaps that could benefit from further investigation. Future research aimed at the development of this framework should focus on further explicating the typing process. The framework is purposefully broad so as to link broad literatures, but I provide only a few examples of how experienced institutional pressures and organizational variables such as work organization and institutional pressure source contribute to
the policy typing process. Other pressures may exist in addition to those described here. For example, the need for legitimacy is an institutional pressure largely important for recruitment (Collins, 2007). Additionally, there are many typologies of work-family policies and practices, with no clear “best” typology. This complicates the typing process, as the dimensions used to parse policies and practices can vary substantially across studies depending on their theoretical grounding. As multi-level and organizational work-family studies become more feasible and popular, these gaps in the framework will be easier to fill as researchers will better understand the factors that go into the decision to implement a work-family policy or practice.

4.6 Limitations and Future Research

Though this updated framework adds much-needed detail to the organizational work-family response framework, it has a few limitations. First and most importantly, this framework is not exhaustive. As mentioned above, there is much that goes into the decision of whether or not to adopt a particular work-family policy or practice, and all of those factors may not be present in this framework. Though this framework incorporates what previous research suggests are the most important factors (institutional pressures and cost-benefit expectations), other factors may be important as well. Additionally, all institutional pressures and organizational factors which impact the decisions of whether or not to adopt a policy or practice cannot be accounted for in such a broad framework. In the text I describe key institutional pressures (labor market demands and public policy) and organizational factors (organization of work and experienced pressure sources) but other pressures and factors likely contribute to this decision as well. For example, some research specifies the desire for legitimacy as an important institutional pressure (DiMaggio & Powell, 1991) and previous institutional pressure research suggests that
public sector firms consider their duty to the public in their decision of whether to offer work-family policies and practices (Goodstein, 1994).

Additionally, this framework is broad in its scope. Though this allows it to reach across theoretical levels from environment to individual practice, it also means that there is less nuance in the middle. More research is needed to better understand the typing process and how organizations decide whether to adopt specific work-family policies and practices, if any, and whom to apply them to. On a related note, this framework does not endorse a particular typology of work-family policies or practices. Though this may contribute to the openness of the center boxes, it also allows the framework to be compatible with any existing categorization or theoretical breakdown of work-family policies and practices.

Future research should use this framework as a starting point to clearly and consistently link organizational variables to individual and organizational outcomes through practices and policies, and help explain why a particular policy or practice is implemented or not and to what extent. Similarly, the framework should be used to help infer what the motivation behind a particular work-family practice or policy (or lack thereof) might be, especially when this is not clear from the population under study.

4.7 Final Conclusions

This dissertation consists of four chapters. Chapter 1 introduced the concept of the organizational work-family response. Chapters 2 and 3 were empirical studies of two very different forms of this response. These two studies showed the importance of the organization’s method of responding to employee work-family needs but also demonstrated the need for a broader framework for identifying and organizing these responses. This fourth and final chapter
uses these and other studies to update the work-family response framework and contextualize the two individual empirical studies.

Overall, the organizational work-family response framework has not been consistent with current research and lacks a theoretical perspective broad enough to capture the complexity of organizational work-family policies and practices yet detailed enough to account for the intricacies and variation in how and why they are adopted and implemented. This chapter updated and reconceptualized the organizational work-family response as an integrated multi-stage framework with four primary components, creating a more in-depth map of how this response is formed within organizations and what it might look like. This conceptualization allows for clearer links from organizational goals to organizational and individual-level outcomes by linking organization-level phenomenon such as institutional pressured more directly to practices and policies which are better understood at the individual level.

Further, the integrated framework is more consistent with current research and trends in the modern organization and distribution of work such as technology and globalization. This updated framework also provides grounding contextualization for examining organizational work-family policies and practices, facilitating comparisons within and between organizations. It provides a starting point for researchers to examine not only the general type of work-family response an organization presents but also its consistency. It provides a framework that grounds organizational work-family practices in a context of other potential organizational choices. The framework itself is grounded in the idea that organizations respond to the non-work needs of employees, and it allows for comparisons of different potential ways an organization could handle a work-family problem.
In discussing the benefits of this framework, I have also implicitly argued for a return to research at a higher theoretical level. Though micro-level work-family research is thriving, and meso-level research is growing, organizational work-family research has not received the same attention. While from a practical standpoint organization-level research is difficult to conduct due to the financial resources required and difficulty in obtaining quality data, it is necessary to solve the puzzles of which work-family policies and practices work in what way, when they work that way, and why they work that way. When organization-level factors are not focal to the research question, or when organization-level data is too difficult to obtain, work-family researchers can still contribute to our collective understanding of how organizations choose and implement work-family policies and practices and how these decisions affect the impact these policies and practices have on employees. At minimum, researchers should provide a discussion of the study context so readers can identify potential institutional boundaries and contingencies which may affect the generalization of the results and their implications for future study. Regardless of whether it is incrementally through richer contextual descriptions in research or more explicitly through organization-level study, this dissertation in its entirety shows that consideration of the organizational level is important. Through the use of frameworks such as the integrated, multi-stage framework presented in this chapter, researchers can address existing puzzles of the organization's role in the work-family interface and usher in an era of cross-domain, multi-level research.
APPENDICES
APPENDIX A

Work-Family Technology Survey and Instructions
GENERAL WORK AND DEMOGRAPHIC QUESTIONS

1. What is your e-mail address?

(This information will be used only to send you the second wave of the survey and to match your answers from the first and second waves. Your e-mail address will not be shared with anyone, including your employer.)

2. What is your gender?

3. What is your age?

4. What is your marital status?

5. On average, how many hours do you work per week as standard working hours?

6. On average, how many hours do you work per week outside of your standard working hours?

7. How many children do you have under the age of 18?

8. Is your current job in the human resources profession?


   Agriculture, Forestry, and Fishing
   Mining
   Construction
   Manufacturing
   Transportation, Communications, Electric, Gas, and Sanitary Services
   Wholesale Trade
   Retail Trade
   Finance, Insurance, and Real Estate
   Services
   Public Administration

WORK METHODS AUTONOMY

Response Options: 1-5 from “strongly disagree” to “strongly agree”

10. The job allows me to make decisions about what methods I use to complete my work.

11. The job gives me considerable opportunity for independence and freedom in how I do the work.
12. The job allows me to decide on my own how to go about doing my work.

**EMOTIONAL EXHAUSTION**

*Response options: every day, a few times a week, once a week, a few times a month, once a month or less, a few times a year or less, never*

13. How often do you feel emotionally drained from your work?

14. How often do you feel burned out by your work?

15. How often do you feel used up at the end of the workday?

**TURNOVER INTENTIONS**

*Response options: Response Options: 1-5 from “strongly disagree” to “strongly agree”*

16. You are seriously considering quitting your company for another employer.

17. During the next 12 months, you will probably look for a new job outside your current employer.

**ROLE IDENTITY**

*Response Options: 1-7 from “strongly disagree” to “strongly agree”*

18. People see me as highly focused on my work.

19. I invest a large part of myself in my work.

**FAMILY ROLE IDENTITY**

20. People see me as highly focused on my family.

21. I invest a large part of myself in my family life.

**WORK-TO-FAMILY INTEGRATION PREFERENCE**

*Response Options: 1-7 from “strongly disagree” to “strongly agree”*

22. I don't like to have to think about work while I'm at home.

23. I prefer to keep work life at work.
24. I don't like work issues creeping into my home life.

25. I like to be able to leave work behind when I go home.

**FAMILY-TO-WORK INTEGRATION PREFERENCE**

*Response Options: 1-7 from “strongly disagree” to “strongly agree”*

26. I don't like to have to think about home while I'm at work.

27. I prefer to keep my home life at home.

28. I don't like home issues creeping into my work life.

29. I like to be able to leave home behind when I go home.

**WORK-FAMILY CONFLICT**

*Response Options: 1-5 from “strongly disagree” to “strongly agree”*

30. The demands of your work interfere with your family or personal time.

31. The amount of time your job takes up makes it difficult to fulfill your family or personal responsibilities.

32. Things you want to do at home do not get done because of the demands your job puts on you

33. Your job produces strain that makes it difficult to fulfill your family or personal duties.

34. Due to your work-related duties, you have to make changes to your plans for family or personal activities.

**AFTER-HOURS ELECTRONIC COMMUNICATIONS EXPECTATIONS**

*Response options: 1-5 from “not at all true” to “completely true”*

*Instructions: To what extent are the following statements true of you and your situation?*

35. My organization expects me to respond to after-hours electronic work communications immediately.

36. My organization expects me to be available for the organization to contact me in off hours.

37. My organization expects me to watch for incoming electronic communications from work after-hours.
38. My organization expects me to be reachable through electronic communication when I go on vacation.

39. My organization expects me to check for electronic communications from work when I am on vacation.

40. When I'm given work that I need to finish at home, my organization expects me to let my boss know via electronic communication as soon as it's finished.

41. If I have important information about work after hours, my organization expects me to electronically communicate it right away.

TECHNOLOGY USE

Response options: 1-5 scale from “not at all” to “to a great extent”

Note: Only starred items retained for full sample.

USE FOR WORK WHILE AT HOME

Instructions: For the following questions, consider your usage of technology such as e-mail, cell phones, voice mails, and instant messaging over a typical month.

In a typical month, to what extent do you...

*42. ...use technology to keep up with work matters while at home?

43. ...use technology to communicate with your workplace outside of normal work hours?

*44. ...use technology to perform work tasks while at home?

45. ...respond to someone from work using technology to communicate with you when you're at home?

*46. ...use technology to stay connected to your work no matter where you are?

47. ...use technology to stay connected to your work no matter what time it is?

*48. ...use technology to access information pertaining to work tasks while at home?

49. ...experience interruptions at home from work-related communications?

50. ...provide status reports after working hours via technology?

51. ...check for technology-based communications as soon as you got up in the morning?
52. ...use technology to contact others in the organization to work on problems you learned about after typical working hours?

53. ...actively check for messages using technology after typical working hours?

54. ...use technology to immediately respond to work-related communications after typical working hours?

USE FOR HOME WHILE AT WORK

55. ...use technology to keep up with family matters while at work?

*56. ...use technology to communicate with your family or friends during normal work hours?

57. ...use technology to perform personal tasks while at work?

*58. ...respond to a family member using technology to communicate with you when you're working?

59. ...use technology to stay connected to your family no matter where you are?

60. ...use technology to stay connected to your family no matter what time it is?

*61. ...use technology to access information pertaining to your family while working?

62. ...experience interruptions while working from family-related communications?

*63. ...check in with family during working hours via technology?

64. ...check for technology-based communications from family as soon as you get to work?

65. ...use technology to address family-related problems during the workday?

66. ...actively check for messages from family using technology after typical working hours?

67. ...use technology to immediately respond to family-related communications during typical working hours?
APPENDIX B

Supplemental Analyses of German Childcare Practices
Table B.1: Within-establishment poisson regression models with establishment fixed effects

<table>
<thead>
<tr>
<th></th>
<th>Total Turnover</th>
<th></th>
<th>Male Turnover</th>
<th></th>
<th>Female Turnover</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>IRR</td>
<td>B</td>
<td>SE</td>
<td>IRR</td>
</tr>
<tr>
<td>Proportion of employees female</td>
<td>0.172</td>
<td>0.439</td>
<td>1.187</td>
<td>-0.426</td>
<td>0.481</td>
<td>0.653</td>
</tr>
<tr>
<td>Gross monthly pay</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Overtime</td>
<td>0.032</td>
<td>0.061</td>
<td>1.032</td>
<td>0.037</td>
<td>0.065</td>
<td>1.037</td>
</tr>
<tr>
<td>Collective agreement</td>
<td>-0.216**</td>
<td>0.081</td>
<td>0.806</td>
<td>-0.233**</td>
<td>0.080</td>
<td>0.792</td>
</tr>
<tr>
<td>Works council</td>
<td>0.230</td>
<td>0.149</td>
<td>1.259</td>
<td>0.312</td>
<td>0.197</td>
<td>1.366</td>
</tr>
<tr>
<td>No equal opportunity policies</td>
<td>-0.085</td>
<td>0.069</td>
<td>0.919</td>
<td>-0.135*</td>
<td>0.067</td>
<td>0.874</td>
</tr>
<tr>
<td>Profit</td>
<td>-0.040*</td>
<td>0.020</td>
<td>0.960</td>
<td>-0.063**</td>
<td>0.022</td>
<td>0.939</td>
</tr>
<tr>
<td>Business volume</td>
<td>0.037</td>
<td>0.044</td>
<td>1.038</td>
<td>-0.011</td>
<td>0.050</td>
<td>0.989</td>
</tr>
<tr>
<td>Average weekly work hours</td>
<td>0.000</td>
<td>0.002</td>
<td>1.000</td>
<td>0.002</td>
<td>0.002</td>
<td>1.003</td>
</tr>
<tr>
<td>Childcare practices</td>
<td>-0.214*</td>
<td>0.089</td>
<td>0.808</td>
<td>-0.189*</td>
<td>0.078</td>
<td>0.828</td>
</tr>
<tr>
<td>Parental leave contact practices</td>
<td>0.003</td>
<td>0.088</td>
<td>1.004</td>
<td>-0.072</td>
<td>0.061</td>
<td>0.930</td>
</tr>
<tr>
<td>Female promotion practices</td>
<td>0.039</td>
<td>0.070</td>
<td>1.040</td>
<td>0.055</td>
<td>0.081</td>
<td>1.057</td>
</tr>
<tr>
<td>Year: 2004</td>
<td>-0.032</td>
<td>0.034</td>
<td>0.968</td>
<td>0.039</td>
<td>0.036</td>
<td>1.040</td>
</tr>
<tr>
<td>Year: 2008</td>
<td>-0.154*</td>
<td>0.063</td>
<td>0.857</td>
<td>-0.093</td>
<td>0.051</td>
<td>0.912</td>
</tr>
</tbody>
</table>

N: Observations 17,369 14,022 11,608
N: Groups 7,274 5,876 4,914

Notes: * p≤0.05; ** p≤0.01
Total number of employees set as exposure variable
Table B.2: Between-establishment poisson regression models

<table>
<thead>
<tr>
<th></th>
<th>Total Turnover</th>
<th>Male Turnover</th>
<th>Female Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>IRR</td>
</tr>
<tr>
<td>Proportion of employees female</td>
<td>-0.007</td>
<td>0.009</td>
<td>0.993</td>
</tr>
<tr>
<td>Gross monthly pay (10,000)</td>
<td>0.000</td>
<td>**</td>
<td>0.000</td>
</tr>
<tr>
<td>Overtime</td>
<td>0.294</td>
<td>**</td>
<td>0.006</td>
</tr>
<tr>
<td>Collective agreement</td>
<td>0.020</td>
<td>**</td>
<td>0.006</td>
</tr>
<tr>
<td>Works council</td>
<td>0.678</td>
<td>**</td>
<td>0.005</td>
</tr>
<tr>
<td>No equal opportunity policies</td>
<td>-0.143</td>
<td>**</td>
<td>0.007</td>
</tr>
<tr>
<td>Profit</td>
<td>-0.124</td>
<td>**</td>
<td>0.002</td>
</tr>
<tr>
<td>Business volume</td>
<td>-0.066</td>
<td>**</td>
<td>0.003</td>
</tr>
<tr>
<td>Average weekly work hours</td>
<td>-0.003</td>
<td>**</td>
<td>0.000</td>
</tr>
<tr>
<td>Childcare practices</td>
<td>0.191</td>
<td>**</td>
<td>0.006</td>
</tr>
<tr>
<td>Parental leave contact practices</td>
<td>-0.198</td>
<td>**</td>
<td>0.007</td>
</tr>
<tr>
<td>Female promotion practices</td>
<td>-0.356</td>
<td>**</td>
<td>0.007</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.413</td>
<td>**</td>
<td>0.046</td>
</tr>
</tbody>
</table>

N: 40,017

Notes: * p≤0.05; ** p≤0.01
Total number of employees set as exposure variable.
State and year controls not shown in table but were included in all analyses.
Table B.3: Within- and between-establishment combined poisson regression model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male Turnover</th>
<th>Female Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Proportion of employees female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross monthly pay (10,000)</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Overtime</td>
<td>0.052**</td>
<td>0.018</td>
</tr>
<tr>
<td>Collective agreement</td>
<td>-0.224**</td>
<td>0.020</td>
</tr>
<tr>
<td>Works council</td>
<td>0.317**</td>
<td>0.035</td>
</tr>
<tr>
<td>No equal opportunity policies</td>
<td>-0.126**</td>
<td>0.015</td>
</tr>
<tr>
<td>Profit</td>
<td>-0.057**</td>
<td>0.005</td>
</tr>
<tr>
<td>Business volume</td>
<td>-0.052**</td>
<td>0.013</td>
</tr>
<tr>
<td>Average weekly work hours</td>
<td>0.002**</td>
<td>0.000</td>
</tr>
<tr>
<td>Childcare practices</td>
<td>-0.206**</td>
<td>0.017</td>
</tr>
<tr>
<td>Parental leave contact</td>
<td>-0.074**</td>
<td>0.015</td>
</tr>
<tr>
<td>Female promotion practices</td>
<td>0.075**</td>
<td>0.016</td>
</tr>
<tr>
<td>Proportion of employees female</td>
<td>-1.711**</td>
<td>0.096</td>
</tr>
<tr>
<td>Gross monthly pay (10,000)</td>
<td>0.000**</td>
<td>0.000</td>
</tr>
<tr>
<td>Overtime</td>
<td>-0.010</td>
<td>0.034</td>
</tr>
<tr>
<td>Collective agreement</td>
<td>0.199**</td>
<td>0.032</td>
</tr>
<tr>
<td>Works council</td>
<td>0.129**</td>
<td>0.044</td>
</tr>
<tr>
<td>No equal opportunity policies</td>
<td>0.067</td>
<td>0.045</td>
</tr>
<tr>
<td>Profit</td>
<td>-0.144*</td>
<td>0.011</td>
</tr>
<tr>
<td>Business volume</td>
<td>-0.042</td>
<td>0.020</td>
</tr>
<tr>
<td>Average weekly work hours</td>
<td>-0.004**</td>
<td>0.001</td>
</tr>
<tr>
<td>Childcare practices</td>
<td>0.441**</td>
<td>0.058</td>
</tr>
<tr>
<td>Parental leave contact</td>
<td>-0.098</td>
<td>0.048</td>
</tr>
<tr>
<td>Female promotion practices</td>
<td>-0.216**</td>
<td>0.057</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.283**</td>
<td>-0.221</td>
</tr>
</tbody>
</table>

Notes:  
* p≤0.05; ** p≤0.01  
Total turnover model does not converge.  
Total number of employees set as exposure variable.  
State, industry, and year controls not shown in table but were included in all analyses.  

N: Observations | 35,781 | 35,783  
N: Groups       | 22,798 | 22,799
REFERENCES
REFERENCES


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The Local. (2010, June 28). Demand for day care on the rise. *The Local*.


