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ABSTRACT OF DISSERTATION

Mamta U. Ojha

The Graduate School
University of Kentucky

2011

JOB DEMANDS, SOCIAL SUPPORT, AND WORK-FAMILY CONFLICT:
A COMPARATIVE STUDY OF IMMIGRANT AND
NATIVE WORKERS IN THE UNITED STATES

ABSTRACT OF DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Social Work
at the University of Kentucky

By
Mamta U. Ojha
Lexington, Kentucky

Director: Dr. Jennifer E. Swanberg, Associate Professor of Social Work
Lexington, Kentucky
2011

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ABSTRACT OF DISSERTATION

JOB DEMANDS, SOCIAL SUPPORT, AND WORK-FAMILY CONFLICT: A COMPARATIVE STUDY OF IMMIGRANT AND NATIVE WORKERS IN THE UNITED STATES

Over the last five decades, there has been an increase in the number of immigrants coming to and settling in the United States (U.S.). Limited research has explored the job and workplace characteristics that contribute to work-family conflict among immigrant workers. To fill this gap in knowledge this study examines the relationship of job demands, social support and worker characteristics to work-family conflict among immigrant and native workers in the U.S.

Using the *2002 National Study of Changing Workforce* (NSCW), this exploratory study identifies the job demands, social support and socio-demographic factors related with time-based, and strain-based, work-family conflict among immigrant (n=157) and native workers (n=165). Four research questions were posited to examine the differences between the immigrant and native workers' experiences of job demands, workplace social support, and work-family conflict; the relationship between job demands, workplace social support and time-based and strain-based work-family conflict; and the job demands, workplace social support and socio-demographic characteristics that predicted time-based, and strain-based work-family conflict. Independent sample t-tests, cross-tabulations, and stepwise multiple regressions via backward elimination method were used to address specific research questions.

Findings indicate that only two job demands, work schedule and learning requirements, are significantly different between immigrant and native workers. Multivariate analysis suggests that among immigrant workers, workload pressure, total hours worked, and lack of co-worker social support are significantly associated with time-based, work-family conflict; being married, lack of supervisor social support, lack of learning requirements, increased work hours and workload pressure are associated with strain-based, work-family conflict. Among native workers childcare responsibilities, lower levels of income, a job with rotating or split shifts, high workload pressure, increased work hours, and lower learning requirements are associated with time-based work-family conflict. Being younger, having lower supervisor social support, lower

learning requirements, higher workload pressure, working at rotating/split shift, and having work role ambiguity are significant predictors of strain-based, work-family conflict among native workers.

Drawing on person-in-environment perspective, this study has implications for social work practice at individual, organizational, and policy levels, and also for work-life research among immigrant working populations.

KEYWORDS: work-family conflict, job demands, workplace social support, supervisor support, immigrant workers.

Mamta U. Ojha
Student Signature

July 6, 2011
Date

JOB DEMANDS, SOCIAL SUPPORT, AND WORK-FAMILY CONFLICT:
A COMPARATIVE STUDY OF IMMIGRANT AND
NATIVE WORKERS IN THE UNITED STATES

By

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July 6, 2011
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Mamta U. Ojha

The Graduate School
University of Kentucky
2011

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Lexington, Kentucky
2011

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DEDICATION

I dedicate this dissertation research to my grandmother Srimati Buddhimati Devi who, although herself never got a chance for formal education, always valued and promoted meaningful education for all in spite of all the cultural and societal barriers. This project is also a tribute to all immigrants who endure unique experiences and challenges and once again confirm the resilience and strength of the human spirit!!!

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Chapter One: Introduction

The United States is a nation of immigrants. While its immigration population has historically been high, the total number residing in the United States of America has increased substantially over the last four decades (Camarota, 2007; Passel & Suro, 2005). A large proportion of immigrants are attached to the U.S. labor force and although the exact number of immigrants in the labor force cannot be accurately measured because of the incidence of undocumented workers, a credible estimate suggests that in the year 2006, 23 million immigrants were attached to the U.S. labor force (Orszag, 2007; Camarota, 2007; Passel & Suro, 2005). In fact, Martin (2007) approximates that of the 37.4 million immigrants living in the United States, 61.5 percentages are attached to the work force. Of these millions, a large proportion of immigrant workers are employed in occupations in which the working conditions are strenuous. Long hours are required with minimum remuneration, no benefits, are high-risk and do not required advanced levels of education.(Acosta-Leon et al., 2006; Hendricks, 2004; Hincapié, 2009; Mosisa, 2002; McCauley, 2005; Kalleberg, Reskin, & Hudson, 2000; McDonald, Bradley, & Brown, 2009). The occupational categories in which immigrant workers are more heavily represented than native¹ workers include: service occupations; traditional blue collar occupations (operators, fabricators, and laborers); agriculture, forestry, and fishing occupations; and construction (Mosisa, 2002). As an example, in 2000, almost 19% of immigrant workers were employed in service occupations and another 19% were employed as operators, fabricators, or laborers (Mosisa, 2002). In contrast, 13% of native workers were employed in the service sector and 13% in the latter group (Mosisa, 2002).

¹ The term “native workers” in this dissertation research refers to workers who are not immigrants and are U.S born workers.

Further analysis reveals that among immigrant workers, women were more heavily represented in service occupations that pay low wages while men were more heavily represented in the laborer occupational categories (Mosisa, 2002).

This trend continues for farming, construction, and production-related occupations: 4% of immigrant workers versus 2% of native workers were employed in farming-related occupations; 9% of immigrants and 6% of native workers were employed in construction; 11% of immigrants and 7% of native workers were employed in production; and three times the proportion of native workers are immigrant workers employed in cleaning and maintenance jobs (9% immigrants vs. 3% native workers) (Congressional Budget Office (CBO), 2005). Not surprisingly, executive, administrative, and managerial occupations were dominated by native workers. In 2004, close to 14% of native workers were employed in office or administrative support occupations and 12% in management positions, compared to 10% and 8% respectively of immigrant workers (CBO, 2005).

An additional caveat to the situation is that immigrant workers are more likely to be represented in occupations that pay low-wages or that require minimal education, in part, because these jobs match their educational level. In fact, a higher percentage of immigrant workers in the last decade of 20th century had lower levels of education than immigrant workers prior to the 1970s. Between 1990 and 1999, 34.4% of the immigrant population had less than high school education, in comparison to 19.3% prior to 1970 (Camarota, 2001). The percentage of immigrants with less than a high school diploma has remained static since the late 1990s; in 2007, about 36% of immigrants reported that they had not graduated from high school (Camarota, 2007).

In addition, because immigrant workers are more likely to be young, they are at the life stage in which becoming parents or increasing family size is common (Kids Count, 2004). Given the job and family demands, possibly exacerbated by poor working conditions may prevent workers from effectively performing their jobs and from fulfilling their non-work responsibilities (Frone, Russell, & Cooper, 1997; Greenhaus & Parasuraman, 1986; Mazerolle, Bruening & Casa, 2008a; Voydanoff, 1988). This may be because poor quality jobs that are both physically and psychologically demanding may also require high personal resource utilization such as utilizing increased time and energy which can be in short supply in young families. Such circumstances may deplete individual resources for non-work arenas, resulting in psycho-physiological reactions such as depression, anxiety, burnout, stress, aches and pains, and decreased physical and mental health (Frone, Russell, & Cooper, 1997; Greenhaus & Parasuraman, 1986; Jones & Butler, 1980; Karasek, 1979; Kelly & Voydanoff, 1985).

Research also demonstrates that other job characteristics including shift work, inflexible work schedules, long work hours, and work role conflict contribute to workers' experiences of strain (Burke, Weir, & DuWors, 1980; Frone, 2000; Grzywacz et al., 2007; Jones & Butler, 1980; Mazerolle, Bruening, et al., 2008a; Thomas & Ganster, 1995; Thompson & Prottas, 2005; Voydanoff, 1988). Such strain may result in role overload. Role overload is experienced when there is insufficient time to perform multiple role responsibilities (Barnett & Baruch, 1985; Byron, 2005). Due to this role overload, workers may be more likely to experience work-family conflict (Grzywacz et al., 2007; Frone, 2000; Jones & Butler, 1980; Katz & Piotrkowski, 1983; Mazerolle, Bruening, et al., 2008a; Staines & Pleck, 1983; Thomas & Ganster, 1995; Thompson &

Prottas, 2005; Voydanoff, 1988). Work-family conflict is “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect”. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role” (Greenhaus & Beutell, 1985, p.77). The phenomenon is known as work-family conflict.

One workplace factor that has been shown to ease work-family conflict among non-immigrant workers is social support (Frone, Yardley, & Markel, 1997). Research studies have shown that employees who receive social support at work were better able to manage their multiple roles on and off the job, and experienced lower levels of work-family conflict as compared to employees who reported receiving lower levels of social support at work (Frone, Yardley, et al., 1997; Shinn, Wong, Simko, & Ortiz-Torres, 1989; Voydanoff, 2005a). Social support at work refers to the exchange of positive emotional resources that occur between a worker and his or her supervisor and/or co-worker (Stephens & Sommer, 1995; Wadsworth & Owens, 2007). This relationship, if positive, may help the worker meet their various work demands, and it may serve as a resource to help them cope with their multiple work and non-work role responsibilities, and also reduce possible experiences of stress (Madigan & Hogan, 1991) and work-family conflict (Anderson, Coffey, & Byerly, 2002).

Social support at work may play an important role in the lives of working immigrants because many of them may have left behind their social networks in their country of origin when they relocated to the United States. Yet, to date, there have been very few studies of work-family conflict among immigrant workers and even fewer that explore the possible effect that social support at work may have on job demands and

work-family conflict among immigrant workers. This study will make an important contribution to the work-family literature by determining the job factors that may contribute to work-family conflict among an understudied population and by exploring the relationship of social support at work with work-family conflict among immigrant workers.

Taken all together, the problems immigrant families face are staggering. Work and family create two major role responsibilities that can lead to work-family conflict when fulfilling one role obligation is made difficult by fulfilling, at the same time, the other role obligation (Greenhaus & Beutell, 1985). In this dissertation research, a major gap in the literature is addressed through an examination of work-family conflict among immigrant workers.

Conceptual Framework

The concept of work-family conflict is based on several theories that are primarily rooted in role theory. In addition, the sub-fields of role theory include: scarcity theory, role conflict theory, role enhancement theory, border theory, identity theory, spillover theory, and compensation theory (Aryee & Luk, 1996; Burke, 1991; Edwards & Rothbard, 2000; Goode, 1964; Greenhaus & Beutell, 1985; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Schlenker, 1987; Sieber, 1974; Staines & O'Connor, 1980). The framework of this dissertation research is general role theory as well as the sub fields of work-role conflict theory and social support theory (Coverman, 1989; Goode, 1960; Greenhaus & Kopelman, 1981; Greenhaus & Beutell, 1985).

Role Theory

Role theory suggests that within social settings, various social structures are formed (e.g., families, communities, work) that require various roles that individuals fulfill (Parsons & Shils, 1951). With each social role, there are certain duties, rights, norms, and behaviors expected (Biddle, 1986).

Involvement in multiple roles (e.g., spouse, mother, father, manager, worker) can lead to what is sometimes referred to as role conflict, role strain (Barnett & Baruch, 1985; Kopelman, Greenhaus, Connolly, & Thomas, 1983), or role overload (Baruch & Barnett, 1986). Role conflict occurs when a person is unable to fulfill the responsibilities within each of their roles. This perceived “conflict” can be a result of external constraints prohibiting an individual from fulfilling their multiple role responsibilities (Barnett & Baruch, 1985; Coverman, 1989; Kopelman et al., 1983). Role strain has been defined by Goode (1960) as “felt difficulty in performing role obligations” (p. 483). Role overload is often experienced as a result of having too little time to fulfill various role demands (Barnett & Baruch, 1985). Some researchers posit that engaging in multiple roles may leave insufficient time to fulfill the various demands and responsibilities inherent to an individual’s roles, resulting in a depletion of time and energy (Coverman, 1989). Role conflict and role overload have been shown to have negative effects on psychological well-being, job satisfaction, and marital satisfaction (Coverman, 1989). Competing demands may require additional time, energy, and resources, and thus can result in the experiences of strain and conflict (Goode, 1960) if the individual does not have enough resources to meet multiple demands.

Using role theory, Goode (1960) developed the scarcity hypothesis to understand the conflict. The scarcity hypothesis states that people have limited time, energy, and resources. Involvement in multiple roles means responding to multiple role obligations. As such, accomplishing various role responsibilities requires time, energy, and various types of resources. The scarcity hypothesis posits that when the demands from these multiple roles exceed the supply of time, energy, and other resources, that help to meet with various role responsibilities strain may be experienced in the form of role conflict or role overload (Coverman, 1989; Goode). The scarcity hypothesis was the basis for early studies of work-role and work-family conflict.

Work-Role Conflict Theory

Work-role conflict theory lays the foundation of the framework for this dissertation research. As a result of multiple role (work and non-work) responsibilities, a conflict (work-family conflict) may be experienced when a worker is unable to fulfill various role obligations. These conflicts may be experienced either because the time available to fulfill one role obligation makes it difficult to fulfill other role obligations or because engagement in one role depletes energy and makes it difficult to meet other role obligations. In other words, limited resources in terms of time and energy to meet various role obligations result in the experiences of time-based or strain-based work-family conflict. Greenhouse's conceptualization of time-based conflict and strain-based conflict is being used in this study because it may help to better understand the effects of job demands on immigrant and native workers experience of work-family conflict. When workers are required to work long hours at demanding jobs they may be more likely to experience time-based and strain-based work-family conflict due to the challenges to

meet multiple role responsibilities. For immigrant workers, the literature suggests they are likely to work long hours (Hendricks, 2004), be employed at more strenuous jobs (Acosta-Leon et al., 2006; Hincapié, 2009), and also are more likely to work at non-standard shifts at work (Presser, 2003) than are native workers possibly leading to increased experiences of time-based and strain-based work to family conflict. Thus, it is important to understand the experience of both of these types of work-family conflict among immigrant and native workers.

One of the earliest studies on work-role conflict done by Kahn and his colleagues (1964) was rooted in role theory. They postulated that conflict arises as a result of various roles that an individual may assume: “Simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other” (p. 64), thus making it difficult for an individual to fulfill the responsibilities within one domain as a result of demands in another domain. Expanding on this idea of inter-role conflict and applying it to work-family domains, Greenhaus and Beutell (1985) defined inter-role conflict as a form of role conflict in which participation in different roles leads to opposing pressures, and “role pressures from the work and family domains are mutually incompatible in some respect” (p. 77). This seminal study provided the theoretical underpinnings for the concept of work-family conflict.

Based on work-role conflict theory, Greenhaus and Beutell (1985) identified the three specific types of work-family conflict previously discussed: time-based, strain-based, and behavior-based conflict. Time-based conflict refers to the conflict that arises when time assigned to fulfill one role responsibility makes it hard to fulfill another role responsibility (Greenhaus & Beutell). For example, occurrence of an important work

meeting at the same time as one's child's soccer match may stress the individual as he/she has to prioritize one event over the other. The individual is not able to fulfill both of the roles at the same time. Strain-based conflict refers to the stress experienced when fulfillment of one role leads to a difficulty in fulfillment of a role in another domain (Greenhaus & Beutell). An example of strain-based conflict is a working mother who finds it difficult to tend to the needs of her children because she is exhausted from her physically demanding job (Grzywacz et al., 2007). The third type of conflict, behavior-based conflict, refers to situations when an individual is expected to carry out diverse behaviors in different domains, and specific behavior requirements in one domain may make it difficult to fulfill the role requirement in another domain (Greenhaus & Beutell). This experience is likely to cause conflict as the individual is unable to conform to the expected roles to be played in different domains. For example, a person may be expected to behave with impersonality, logic, and authority at work. At home, these very same behaviors may not be appreciated by family members.

Social Support Theory

The theoretical perspective on social support research indicates that the availability of social support contributes to overall wellbeing (Lakey & Cohen, 2000). More commonly social support has been operationalized and conceptualized in perceptual, dynamic, and structural terms. The perception that one is loved for, cared for, and valued are examples of perceptual social support variables (Cobb, 1976) whereas the exchange of resources to enhance the well being of recipient has been identified as dynamic process of social support (Schumaker & Brownell, 1994). Four categories of social support in terms of emotional social support (for example, empathy, love, caring,

trust, etc.), appraisal social support (e.g., affirmation, feedback), informational social support (for example, guidance, suggestion, direction, etc.) and instrumental social support (e.g., help in terms of time, in-kind assistance) have been recognized as structure and categories of social support (House, 1981; Nelson & Quick, 1991).

The strain-reducing effect of social support changes with its theoretical placement in the model; social support has been used as an independent, intervening, antecedent, moderating, and mediating variable (Carlson & Perrewé, 1999). With the assertion that social support promotes coping by reducing the effects of stressors on the strain experienced; the proposition is that the strain which is experienced in the form of work-family conflict as a result of increased job demands (stressors) can be reduced with the availability of social support. This suggestion about the relationship between job demands, work-family conflict and social support purports that there is an indirect relationship between social support and work-family conflict. Although some studies indicate that social support mediates the relationship between job demands and work-family conflict (Anderson et al., 2002; Frone, Yardley, et al., 1997; Warren & Johnson, 1995) a few studies have examined social support as antecedent to job demand variables (Fisher, 1985; Frone, Yardley, et al., 1997).

Social support not only has indirect and intervening relationship with job demands and work-family conflict, another possible way in which the availability of social support may influence the level of work-family conflict experienced is through direct effect whereby the presence of social support is associated with reducing the negative consequences of work-family conflict (Thomas & Ganster, 1995).

Social support at work and work family conflict.

Research has demonstrated that the availability of social support at work helps to reduce the negative experience of work-family conflict (Anderson et al., 2002; Greenhaus & Parasuraman, 1986; Thomas & Ganster, 1995). Social supports at work that have been most extensively studied are social support from supervisors and co-workers (Lim, 1997; Stephens & Sommer, 1995; Wadsworth & Owens, 2007). Unavailability of social support from supervisors has been associated with increased work-family conflict (Anderson et al., 2002). Increased supervisor social support and also co-worker social support has been associated with lower incidence of work-family conflict, and lack of social support has been related to higher levels of work-family conflict (Goff, Mount, & Jamison, 1990; Greenhaus et al., 1987; Stephens & Sommer, 1995; Wadsworth & Owens, 2007).

Thomas and Ganster's (1995) examination of supervisor social support and work-family conflict among 398 health professionals demonstrated that the availability of social support from supervisors reduced the incidence of work-family conflict thus indicating that there is a direct effect of supervisor social support on the experience of work-family conflict. In another study Jansen, Kant, Kristensen, and Nijhuis (2003) examined risk factors for the onset of work-family conflict in a longitudinal study. Data was collected from 12095 employees, three times in a two year follow-up period. Results indicated that employees who reported higher co-worker and supervisor social support had significantly lower risk of developing work-family conflict.

Work-Family Conflict and Immigrant Workers

Immigrant workers are more likely to be employed in jobs that are both physically and psychologically demanding (Borjas & Tienda, 1985; Kalleberg et al., 2000) and

these job demands may require the employee to utilize increased time, energy, and resources at work leaving them with reduced time, energy, and resources to be utilized in another domain, such as at home, resulting in experiences of work-family conflict (Burke et al., 1980; Grzywacz et al., 2007; Jones & Butler, 1980; Katz & Piotrkowski, 1983; Mazerolle, Bruening, & Casa, 2008a; Staines & Pleck, 1983; Voydanoff, 1988). For instance, an hourly worker employed at a poultry processing plant may be required to work long hours and an irregular schedule; such conditions may not leave enough time and psychological resources to meet family demands, which may result in the feelings of work-family conflict.

To date, there have been very few studies of work-family conflict among immigrant workers. One study done by Grzywacz et al. (2007) examined the effect of job demands on work-family conflict among 200 Latinos employed at poultry processing plant. Results indicated that research participants experienced some work-to-family conflict, and women experienced higher levels of work-family conflict than men. Job conditions such as physical workload, awkward posture, and repetitive movement were the most significant predictors of work-family conflict among women; whereas psychological job demands were the most significant predictor of work-family conflict among men.

Immigrant workers face a variety of opportunities and challenges as they integrate into the U.S. labor force (Bloomekatz, 2007). Because of the prominence of immigrants in the American workforce, their ability to effectively meet their work and family life responsibilities has significant implications for individual workers and employers. Research indicates that work-family conflict among non-immigrant populations results in

decreased physical and mental well-being (Frone, Russell, & Cooper, 1997; Greenhaus & Parasuraman, 1986), reduced productivity (Cascio, 1991), and increased absenteeism (Goff et al., 1990). Thus, the preponderance of conditions that give rise to work family conflict is found disproportionately among immigrant workers.

Statement of the Problem

The majority of the research conducted to date within the field of work-family has focused on the Anglo-American population (Spector et al., 2004), professional and managerial workers, and middle class families (Lambert, 1999; Perry-Jenkins, Repetti, & Crouter, 2000; Swanberg, Pitt-Catsouphes, & Drescher-Burke, 2005). Little is known about immigrants' work-family experiences: specifically, how job demands may contribute to work-family conflict and whether social support at work helps to lessen perceived work-family conflict (Grzywacz et al., 2007). To reduce negative consequences of work-family conflict among immigrants, it is important that we understand the determinants and consequences of work-family conflict specific to this population. Moreover, to date, there has been limited research into whether immigrant workers' work-family experiences are similar to or different than the native workforce of the United States.

To address this gap in the literature, the goal of this exploratory study is to determine the job factors that contribute to work-family conflict among immigrant workers employed in the U.S., and to determine whether social support at work is associated with reducing the experiences of work-family conflict. This study is also interested in determining whether the job factors that contribute to work-family conflict are different for immigrant workers than for native workers.

In this study, data from the 2002 *National Study of the Changing Workforce* (2002 NSCW), a national, representative sample of the U.S. workforce, will be used to address these goals. The following research questions are designed to address the goals stated above:

1. Are there differences between immigrant and native workers perceptions of job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support at work (supervisor and co-worker), and work-family conflict (time-based and strain-based)?
2. Is there a relationship between time-based work-family conflict and job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic characteristics (age, gender, marital status, parental status, income, and education) among immigrant (among immigrant workers socio-demographics also included length of stay in the United States) and native workers in the U.S.?
3. Is there a relationship between strain-based work-family conflict and job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic characteristics (age, gender, marital status, parental status, income, education, and length of stay in the United States) among immigrant (among immigrant workers socio-demographics also included length of stay in the United States) and native workers in the U.S.?
4. Which of the job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-

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Chapter Two: Literature Review

A growing proportion of the U.S. population is comprised of recent immigrants and this trend is projected to continue until 2050. A significant portion of immigrants are employed in jobs that can be categorized as “poor quality jobs.” that are associated with high psychological and physical demands. Demanding jobs are associated with increased work-family conflict (Burke & Greenglass, 2001; Frone, 2000; Frone, Yardley, et al., 1997; Madsen, Miller, & John, 2005; Thomas & Ganster, 1995). Research supports the assertion that social support at work may reduce the experience of work-family conflict.

The following literature review examines work-family conflict among native and immigrant workers and the literature on organizational, family and individual characteristics associated with work-family conflict among native and immigrant workers. A case will be made that one job characteristic -- social support -- has implications for how work-family conflict is experienced by native and immigrant workers. As such, the section on social support at work aims to provide a rationale for the inclusion of social support at work as a factor that may reduce perceived work-family conflict.

Background of Work Family Conflict

The concepts of work and family are of abiding interest in social science literature. During the 1970s, sociologists, organizational scholars, and others began to explore the interdependence between workers' lives on and off the job. The rise in the interest of work and family as a contemporary social problem resulted, in part, because of the mass entrance of women into the labor force (Edwards, 2001). During this time, classic works by Kanter (1977) and Katz and Kahn (1978) established that events in the

work domain can affect the events in the non-work domain. The implicit idea is that work and family are separate yet inseparable domains, as the effect of one domain has an impact on the other domain. These two studies set the foundation for over three decades of research that has examined and continues to examine the relationships between an employee's work, personal, and family life, and it has set the foundation for an interdisciplinary field referred to as "work-family." Despite the ever-expanding number of studies on this topic, few have examined the experiences of work-family conflict among immigrant workers residing in the United States. This dissertation seeks to fill the gap in this knowledge.

Work-family conflict.

Even before the height of the mass entrance of women to the labor force, Kahn et al. (1964) laid the initial groundwork for the study of work-family conflict. According to Khan et al. (1964) work-family conflict is experienced as a result of strain associated with managing multiple work and family responsibilities. Within this context, their study was one of the first to examine the concept of role theory as it pertains to role strain. Role theory asserts that an individual may have multiple roles according to the norms, beliefs, preferences, and expectations of the society to which the individual belongs (Biddle, 1986). Role strain results when an individual occupies multiple roles that subsequently conflict with one another (Frone, Russell, et al., 1997; Hammer, Allen, & Grigsby, 1997). These initial theoretical perspectives laid the groundwork for defining work-family conflict.

Some social scientists argue that people have limited time, energy, and resources (Cosser, 1974; Goode, 1960; Slater, 1963) and that, as such, involvement in multiple roles

requires significant time and energy. Thus, individuals engaged in numerous roles may deplete their resources resulting in role conflict and/or role overload (Byron, 2005; Carlson, Kacmar, & Williams, 2000; Greenhaus & Beutell, 1985) which may contribute to the experience of stress or strain (Casper, Martin, Buffardi, & Erdwins, 2002). Moreover, multiple role responsibilities may also result in experienced conflict between job role responsibilities and family role responsibilities. The challenge to fulfill these competing role demands may lead to the experiences of work-family conflict (Greenhaus & Beutell, 1985).

Greenhaus and Beutell (1985), further expanded Kahn et al.'s (1964) research on work-family conflict delineating between three types of work-family role conflict. Their research suggests that work-family role conflict may result when multiple responsibilities compete due to: 1) time-related matters, 2) strain between expectations at work and at home, and 3) struggles between different role behaviors. Time-based work-family conflict is experienced when time required to fulfill one role makes it difficult to carry out other role responsibilities (Burke et al., 1980; Judge, Boudreau, & Bretz, 1994; Greenhaus & Beutell; Keith & Schafer, 1984; Voydanoff, 2004). For example, a working father of a school-aged child may have to choose between going to an executive board meeting at his job or to a PTA meeting; the desire and value placed on carrying out both of these roles determine the inter role conflict experienced and subsequent stress due to the perceived conflict.

Strain-based work-family conflict is experienced when participation in one role makes it difficult to fulfill other role requirements, as the pressure experienced in one role makes it difficult to fulfill role obligation in another domain (Greenhaus & Beutell, 1985;

Voydanoff, 2004). For example, after working all day at poultry processing plant a working mother may find it difficult to do household chores and to take care of children at home. The third type of work-family conflict defined by Greenhaus and Beutell, behavior-based work-family conflict, is experienced when contradictory behavioral expectations in multiple roles are experienced. For instance, a woman may be expected to play a subordinate role at home, but at her place of employment she may be required to hold a leadership position and compete with others. Switching between contradictory behavioral expectations required by each area may cause some stress resulting in the experience of work-family conflict. Time-based work-family conflict has been studied more widely than either strain-based or behavior-based conflict (Adams, King, & King, 1996; Aryee, 1992; Frone, Yardley, et al., 1997). In this dissertation, only time-based and strain-based work-family conflict is examined, and hence the literature review focuses on these two types of work-family conflict.

Time-based work-family conflict.

Studies document a positive relationship between excessive time commitments to work and work-family conflict (Burke et al., 1980; Greenhaus, Bedeian, & Mossholder, 1987; Judge et al., 1994; Keith & Schafer, 1984). Specifically, work-family conflict is likely to be higher for workers who are required to work long hours. For instance, in one of the early studies of work-family conflict, also known as work-family role strain, Keith and Schafer studied work-family role strain among 135 dual-earner couples using data collected from the 1971 Quality of Life Survey. Results indicated that hours spent at work was most significant in explaining work-family role strain; and that men and women who reported higher number of hours at work also reported higher levels of work-

family role strain. Furthermore, the authors found that hours spent at work were more highly correlated to work-family role strain for men as compared to women. Keith and Schafer's seminal findings indicate that longer work hours may have a positive association with work-family conflict and that this relationship between hours worked and work-family conflict may differ for men and women. In a more recent study of time-based work-family conflict, Mazerolle, Bruening, Casa, and Burton (2008a) collected data from 587 certified athletic trainers (324 men and 263 women) using an on-line survey method to determine job demands that contributed to work-family conflict. Results indicated that long work hours and work-related travel contributed most toward the experiences of work-family conflict for both men and women.

Strain-based work-family conflict.

As stated earlier, few studies have examined strain-based work-family conflict (Carlson et al., 2000; Duxbury & Higgins, 1991; Mauno, Kinnunen, & Ruokolainen, 2006; Rice, Frone, & McFarlin, 1992). Those studies that have demonstrate that there is a positive relationship between job demands and strain-based work-family conflict. Some even indicate the strain-based conflict can lead to negative health outcomes such as physical or psychological symptoms (Mauno et al., 2006). Other studies have indicated that role conflict, role expectation, and role ambiguity are associated with strain-based work-family conflict (Duxbury & Higgins, 1991; Carlson et al., 2000; Mauno et al., 2006). In one of the earlier studies, work involvement was examined to determine its effect on strain-based work-family conflict among men and women. Work involvement has been defined as psychological identification with a job (Kanungo, 1982,). Using this definition, work involvement has implications for how self-concept is developed. Work

involvement was measured by examining employees' psychological response to their work role, identification with the job, and importance of job on self-image and self concept. Data were collected from 131 men and 109 women who were in managerial and professional jobs and had children. Results indicated that there was a significant group difference between men's and women's experiences of strain-based work-family conflict. Women reported higher levels of work-family conflict compared to men (Duxbury & Higgins, 1991). Authors speculated that these significant differences in gender comparison may be due to societal expectations and norms about men's and women's roles; specifically that women may be required to perform family roles in addition to their job responsibilities, which may result in increased experiences of strain-based work-family conflict.

In another study of 225 workers, Carlson et al., (2000) examined role conflict, role ambiguity, and role involvement as antecedents to strain-based work-family conflict, and family satisfaction and life satisfaction as consequences of strain-based work-family conflict. Data were collected using a snowball sampling approach from full-time employees, employed in various organizations in a Midwestern city that were also enrolled as full-time students in an evening program to complete undergraduate studies. In addition, the employees were directed to ask colleagues to complete surveys. Using a sample of 83 male and 142 female workers of which 63% had children living with them, results indicated that role conflict, role ambiguity, and role involvement significantly predicted strain-based work-family conflict and contributed towards family and life satisfaction. Total hours worked also had an effect on strain-based work-family conflict; time spent at work contributed to the strain experienced by workers (Carlson et al., 2000).

In a more recent study of strain-based work-family conflict (Mauno et al., 2006) data were collected from 409 employees in two different types of organizations (private sector – information, communication, and technology; public sector – health care and manufacturing) to examine strain-based work-family conflict and its consequence on organizational commitment, job satisfaction, and physical symptoms. Results indicated that 19% of variance in physical symptoms and 9% of variance in job satisfaction were explained by strain-based work-family conflict. Strain-based work-family conflict was more strongly associated with physical symptoms compared to job satisfaction or organizational commitment.

Research supports that time-based work-family conflict is associated with time-related demands (for instance working long hours or commute time), whereas strain-based work-family conflict is associated with strenuous job demands for instance work role conflict, work role ambiguity, role demand and physical and psychological demands at work. Work-family conflict can be experienced as a result of demands at work which make the fulfillment of role obligations in family challenging or as a result of increased demand in family role which makes the fulfillment of work role obligations challenging. The bi-directionality of work-family conflict is discussed in the next section.

Work-family conflict: a two-dimensional construct.

Scholars suggest that work-family conflict is a two-dimensional construct; that is, there are two types of work-family conflict: work-to-family conflict and family-to-work conflict (Frone, 2000; Frone, Yardley, et al., 1997). Work-to-family conflict occurs when obligations at work interfere with family or other non-work commitments (Greenhaus & Beutell, 1985; Kahn et al., 1964). Whereas, family-to-work conflict occurs when one's

family and other non-work obligations interfere with one's ability to fulfill work-related responsibilities (Guttek, Searle, & Klepa, 1991; Katz & Piotrkowski, 1983). For the purpose of this dissertation, work-to-family conflict, referred to as work-family conflict, is considered.

The Problem of Work-Family Conflict

With a growing number of women participating in the labor force and with rise in dual-earner families, an increasing number of individuals are bearing multiple role responsibilities. When there are multiple roles to be carried out with limited time and energy to accomplish those role responsibilities, it can be experienced as conflict. Furthermore, with the advent of technology the boundaries of work and family have eroded and work-family has evolved as a social problem to be examined.

Women's participation in the labor force has increased from 34% in 1950 (Toosi, 2002) to 59.5% in 2008 (U.S. Department of Labor, 2008), clearly showing that the percentage of women in the total labor force rose sharply over the past half century. In 2008, women comprised 46.5% of the total labor force (U. S. Department of Labor, 2008), and it is projected that women's participation in the labor force will continue to increase in all occupations and industries for the next couple of years (Boushey, 2009).

The increased proportion of dual-earner households or households where both parents work full or part-time is another demographic shift that has led to an increasing number of individuals carrying out multiple work and non-work role responsibilities (Jacobs & Gerson, 1998; Boushey, 2009). As an example, in 1975, 47% of women with children under 18 were working; by the year 2007, 71% of women with children under 18 were working (Galinsky, Aumann, & Bond, 2008). Simultaneously the proportion of

dual-earner couples increased from almost 36% in 1970 to 60% in 1997 (Jacobs & Gerson, 1998). In 2001, almost 64% of married couples were dual-earners (U.S. Department of Labor, 2006). More recently, 79% of married or partnered employees were dual-earner couples (Galinsky et al., 2008). These demographic trends suggest that an increasing number of working adults are managing both work and non-work responsibilities. Although close to 60% of women participated in the U.S. labor force in 2005 (Bureau of Labor Statistics, 2006), organizations and workplaces still adhere to workplace structures from the early 20th century and are not structured around the work and family needs of contemporary workers (Williams, 2000). This lag in organizational change has partially contributed to workers' inability to meet the expected role demands in work and family domains (Adams et al., 1996; Aryee, 1992; Frone, Russell, et al., 1992; Galinsky, Bond, & Friedman, 1996).

Along with demographic changes, advances in technology have contributed to individuals' increased role demands. That has, in some instances, resulted in increased stress and pressure at work and at home (Parasuraman & Greenhaus, 1997; Valcour & Hunter, 2005). Employers can now reach employees 24 hours a day, 7 days a week with the increased availability of communication tools like cellular phones, faxes, and video conferencing (Valcour & Hunter, 2005). Within some working families, the boundaries between work and family are eroded and employees often have to perform work-related roles when they are in the middle of a family responsibility. This results in reduced time, energy, and attention on family matters consequently increasing the stress and work-family conflict (Spector et al., 2004).

With the emergence of a global economy, organizations are now operating in multiple countries and continents. Technology has allowed employers to synchronize work hours across countries and time zones, thus extending the overall work hours and also requiring geographic mobility. As employers require a supply of workers in other countries, geographic mobility has heightened tremendously in the past decade, in part, in an effort to obtain employment, find better job opportunities, or to retain employment (Bowels, 1970; Pin, Garcia, Gallifa, Quintanilla, & Susaeta, 2008). Such changes have resulted in the mobility of workers within the United States as well as internationally. Such work pressures may require employees to work an irregular work schedule, work from home offices, be away from home for work, and increased commute time to work. As a result, boundaries between work and family are eroding, with many workers being asked to be available for longer hours and to be mobile if necessary (Parasuraman, & Greenhaus, 1997, p. 6) resulting in the experiences of work-family conflict.

Work-Family Conflict as a Social Problem

Scholars from multiple disciplines have examined the effects that work-family conflict has on individuals, their families, and the organizations in which they work. At the individual level, research suggests that work-family conflict is associated with poor physical and mental health (Burke & Greenglass, 2001; Frone, 2000; Frone, Russel, et al., 1997; Madsen et al., 2005; Thomas & Ganster, 1995), and lower life satisfaction (Higgins, Duxbury, & Irving, 1992; Kossek & Ozeki, 1998; Thomas & Ganster, 1995). Work-family conflict, at the family level has been associated with lower family satisfaction (Aryee, 1992; Brough, O'Driscoll, & Kalliath, 2005; Hang-yue, Foley, & Loi, 2005; Honda-Howard & Homma, 2001; Thomas & Ganster, 1995). Finally, at the

organizational level, researchers report associations between work-family conflict and lower job satisfaction, increased absenteeism, burnout, and intentions to leave work (Anderson et al., 2002; Aryee, 1992; Hang-yue et al., 2005; Honda-Howard & Homma, 2001; Kossek & Ozeki, 1998; Mazerolle et al., 2008b; Thomas & Ganster, 1995; Westman, Etzion, & Gattenio, 2008). The following sections review the literature on the effects of work-family conflict on individuals, families, and organizations.

Consequences of work to family conflict for individuals.

An association between work-family conflict and worker health outcomes is well established (Burke & Greenglass, 2001; Frone, 2000; Frone, Russel et al., 1997; Madsen et al., 2005; Thomas & Ganster, 1995). Specifically, higher perceived work-family conflict is associated with poorer health outcomes including reduced physical and mental well-being, and increased depression, anxiety, and burnout. Frone, Russell, and Cooper affirm that, "Cross-sectional research provides consistent evidence that work-family conflict is positively associated with a host of adverse health-related outcomes" (1997, p. 325). In their study of 464 employees working in four for-profit organizations, Madsen et al. (2005) set out to determine the consequences of work-family conflict on physical and mental health of employees, and their perceived organizational commitment. Their sample was comprised of male (49%) and female (51%) workers; 78% were married and approximately 70% had children who were 18 years old or younger. In this study, psychological health was measured using questions pertaining to emotional stability and self-perception of mental health; physical health was measured using indicators of pain, vitality, and self-perception of overall health and physical health; and organizational commitment was determined using a measure that tapped the extent of participants

identification, loyalty, and involvement in the organization. Results indicated a negative relationship between work-family conflict and mental health and physical health. That is, as employees' work-family conflict increased, they reported lower levels of psychological and physical health. Furthermore, the results indicated that work-life conflict had a ripple effect on organizational commitment. Respondents who scored low on health outcomes also reported low scores on organizational commitment.

Studies of work-family conflict among non-Anglo-American populations in the U.S. and in other parts of the world indicate similar results. A study of Finnish workers employed in three industries (manufacturing, banking, and health care) was conducted to determine the relationship between work-family conflict and four outcome variables: job anxiety, job depression, job exhaustion, and psychosomatic symptoms. Results indicated that there was a significant, positive relationship between increased work-family conflict and job anxiety, job-related depression, job exhaustion, and psychosomatic symptoms (Kinnunen & Mauno, 1998).

In one of the first studies to examine work-family conflict among an immigrant working population in the U.S., data collected from 200 Latino employees working in a poultry processing unit (Grzywacz et al., 2007) indicated that work-family conflict was weakly related with health outcomes in this population. Results from this study also indicated that when compared to men, women reported higher levels of work-family conflict, depressive symptoms, and anxiety.

Consequences of work to family conflict for families.

Additional studies provide evidence that work-family conflict can have a negative effect on employees' family life. Studies have shown that work-family conflict can effect

marital satisfaction and life satisfaction (Chiu, 1998; Kossek & Ozeki, 1998). This section reviews a few studies that highlight the effect that work-family conflict can have on workers' family life.

To examine the direct correlations between work-family conflict, marital satisfaction, and life satisfaction, Chiu (1998) collected data from 497 employees working as nurses, managers, and social workers in Hong Kong. Results showed that work-family conflict had a direct effect on marital satisfaction and indirect effects on life satisfaction. There was a statistically significant negative relationship between work-family conflict and marital satisfaction; and positive relationship between marital satisfaction, and life satisfaction. Thus, as work-family conflict increased, employees reported lower levels of life satisfaction.

In another study, Kossek and Ozeki (1998) conducted a meta-analysis of the relationship between work-family conflict and job and life satisfaction, and examined correlations between life satisfaction and work-family conflict in studies conducted between 1967 and 1997. A total sample of 18 correlations was drawn to examine this relationship. They found a negative relationship between work-family conflict and life satisfaction, and concluded that people with high levels of conflict are less satisfied with their family lives. Although inconclusive, gender was found to have a slight moderating effect on the relationship between life satisfaction and work-family conflict. Association between work-family conflict and life satisfaction was reported to be stronger for women.

In a more recent study of work-family conflict and life satisfaction, Gareis, Barnet, Ertel, and Berkman (2009) used the National Survey of Midlife Development in the United States data set to examine work-family conflict and life satisfaction among

1,075 men and 956 women. Data were collected from English-speaking adults between the ages 25-74 years old using the random digit dialing. Average hours worked by respondents was a little over 44 hours a week and 75% of the respondents reported that their partners were also working. A little over 44% of the respondents reported that they cared for minor children at home, and 17% of them reported that they had elderly as well as child care responsibilities. Global life satisfaction was assessed by examining overall satisfaction with work situations, physical health, and relationships with partners and children. Results indicated that work-family conflict contributed significantly towards life satisfaction and was an important indicator for well-being (Gareis et al., 2009).

The reviewed studies demonstrate that work-family conflict can have negative effects on marital satisfaction and life satisfaction, and thus has implications for family well-being. Work-family conflict has not only been associated with individual-level consequences and family-level consequences, but also with organizational-level consequences.

Consequences of work to family conflict for organizations.

Work-family conflict also has implication for organizations in terms of job satisfaction, turnover intentions, organizational commitment, absenteeism, job burnout, and job dissatisfaction (Ahuja, Chudoba, Kacmar, McKnight, & George, 2007; Brough et al., 2005; Cook, 2009; Hammer, Bauer, & Grandey, 2003; Honda-Howard & Homma, 2001). This next section reviews the pre-eminent studies on the consequences of work-family conflict on organizational outcomes.

To examine the effects of work-family conflict on job satisfaction, Adams et al. (1996) collected data from 163 full-time workers in diverse occupations who were living

with at least one family member. Results indicated that work which interfered with family was negatively related to job satisfaction; that is, as work-family conflict increased, job satisfaction decreased.

In another study, Hang-yue et al. (2005) aimed to determine the effects of work role stressors on emotional exhaustion, job satisfaction, and intention to leave among a sample of 887 professional clergy in Hong Kong, almost equally split between male (53%) and female workers. Results showed that work role stressors were significant predictors of job satisfaction; and intention to leave was influenced by job satisfaction. Employees who reported higher levels of work role stressors reported lower levels of job satisfaction, and employees who reported lower levels of job satisfaction reported higher levels of intention to leave. Authors report that work role stressors explained 36% of the variance in job satisfaction (Hang-yue et al., 2005).

Other studies have found similar findings--that work-family conflict negatively impacts organizational outcomes including job satisfaction (Brough et al., 2005; Frye & Breaugh, 2004; Kinnunen, Feldt, Mauno, & Rantanen, 2010), intent to leave (Ahuja et al., 2007; Haar, 2004; Honda-Howard & Homma, 2001), organizational commitment (Ahuja et al., 2007; Burke, 1988; Netemeyer, Boles, & McMurrian, 1996), absenteeism (Hammer, Bauer, & Grandey, 2003; Thomas & Ganster, 1995), and burnout (Cook, 2009).

The reviewed literature reveals that work-family conflict can have a significant effect on individuals, families, and organizations. Therefore, it is important to determine the job or workplace characteristics that contribute to work-family conflict, especially among populations that have not been previously studied, such as the worker group of

interest in this dissertation, immigrant workers. To build a rationale for why the social issue of work-family is an important area of study for social workers, studies that used work-family conflict as an independent variable are highlighted. In addition, the job and workplace characteristics that may contribute to work-family conflict among immigrant workers are examined. An emerging body of evidence provides support that work-family conflict is experienced by workers in other countries and non-western cultures. Although it is recognized that work-family conflict experiences may vary across cultures due to differences in values, beliefs, and norms toward family and work (Hofstede, 1984; Yang, Chen, Choi, & Zou, 2000), few studies have examined immigrant workers' experiences of work-family conflict. This study begins to fill that gap.

Factors Contributing to Work-Family Conflict

Various work, family, and individual characteristics have been conceptualized as factors that contribute to workers' experiences of work-family conflict (Boyar, Maertz, Pearson, & Keough., 2003; Kossek & Ozeki, 1998; Swanberg, James, & Ojha, 2008; Thomas & Ganster, 1995). This next section reviews three main areas of work-family research: the effect of various job demands on work-family conflict; the effect of social support at work on perceived work-family conflict; and the effect of family and individual characteristics on work-family conflict.

Job Demands

Sociology of work is a field of study focusing on the impact of work on society as a whole and its impact on individual workers (Keith, & Babchuk 1998; Noon & Blyton, 1997). It examines the relationship between various psycho-social, physical, and economic factors at work and workers' well-being. The ways in which jobs are designed

and performed are impacted by: (a) external factors like economic, legal, political, technological, and demographic issues at regional, national, or international levels; (b) organizational-level structures and factors like human resources policies, production methods, and supervision practices; and (c) workplace factors such as job demands and conditions commonly referred to as job characteristics (Sauter et al., 2002). Research has demonstrated and linked workers' well-being to the presence or absence of certain job demands (De Jonge, Janssen, Dollard, Landeweerd, & Nijhuis, 2001; Ter Doest & De Jonge, 2006). This dissertation research expands on these ideas by assessing the impact of certain job demands on the experiences of work-family conflict among immigrant and native workers residing in the United States.

Defining job demands.

Job demands are defined by Karasek (1979) as workload requirements which exert pressure on employees for increased output at work, thus making the job hectic and psychologically challenging. More recent definitions of job demands include broader perspectives and have added social, structural, and organizational dimensions of work. Mauno et al. (2006) defined job demands as “physical, psychological, social, or organizational features of the job, requiring physical and/or psychological effort and energy from an employee, and are consequently related to physiological and/or psychological costs (i.e., strain)” (p. 212).

Previous research has demonstrated that job demands such as long work hours, work role ambiguity, work role conflict, shift work, and physical and psychological effort contribute to job strain which results in role overload and feeling overwhelmed and consequently contributes to work-family conflict (Burke et al., 1980; Grzywacz et al.,

2007; Frone, 2000; Jones & Butler, 1980; Katz & Piotrkowski, 1983; Mazerolle, et al., 2008a; Staines & Pleck, 1983; Thomas & Ganster, 1995; Thompson & Prottas, 2005; Voydanoff, 1988). These and other related job factors have also been reported to have contributed toward the experiences of work-family conflict in other cultures (Hofstede, 1984; Yang et al., 2000).

Another job factor, the opportunity to learn on the job, has been examined and documented as a factor that reduces work-family conflict (Voydanoff, 2004). In this dissertation, because the population of the study is immigrant workers, learning opportunities on the job is examined as a factor that may be experienced as a job demand, rather than an opportunity. As such, I argue that learning opportunities on the job will increase the experiences of work-family conflict. We refer to on-the-job learning as *learning requirements*. The following section reviews research on job demand factors that may contribute to work-family conflict among native and immigrant workers.

Hours worked.

Americans work longer hours as compared to any other industrialized nation in world (Gornick & Meyers, 2003). In their analysis of the Luxembourg Income Study (LIS), Gornick & Meyers compared average hours worked by employees in nine industrialized countries. They found that American workers' average hours worked per year was highest compared to any other country. American workers, on an average, spent 1,966 hours at work every year; whereas in Sweden, France, Germany, United Kingdom, Canada, and Japan the average hours worked every year was logged at 1,552; 1,656; 1,560; 1,731; 1,732; and 1,889 hours respectively. Thus, American employees are working roughly six more weeks per year compared to employees in Canada and the

United Kingdom. In their analysis of the Current Population Survey, Jacobs and Gerson (1998, 2001) found significant differences in the number of hours worked by occupation. They concluded that managers and professionals, because of the nature of their jobs, may be working longer hours and this could be one reason for the long work hours trend in America. It has been suggested that another reason for longer work hours trend in America is the need to meet financial responsibilities (Schor, 1991). Because, of the financial demands of the individual and/or the family, workers may have to work longer hours, which could lead to an increased trend of employees working two jobs or working overtime.

Longer working hours have been associated with increased work-family conflict (Thompson & Prottas, 2005), as long work hours may not leave sufficient hours for workers to fulfill their non-work responsibilities. In one of the seminal work-family conflict studies, Pleck, Staines, and Lang (1980) found that the number of hours employees work was strongly associated with work-family conflict. Initiated by the U.S. Department of Labor, the Survey Research Center at the University of Michigan collected data from 372 employees using the Quality of Employment Survey (QES) to examine the prevalence of work-family conflict in the general population. Results indicated that excessive work hours, frequent overtime, shift work starting in the afternoon, and physical demand were significant predictors of work-family conflict.

In another seminal study, using the 1977 Quality of Employment Survey, Voydanoff (1988) studied the association between work role characteristics, family structure demand, and work-family conflict. Data were collected from 757 men and 270 women. Results showed that the overall model predicted 24% of the variance in work-

family conflict among men, and 27% of the variance among women, which also indicates that women are more likely to experience higher levels of work-family conflict as compared to men. The number of hours worked per week was also a significant predictor of work-family conflict for men as well as for women. Similar results have been found in more recent studies.

To examine work-family conflict, Gutek et al. (1991) collected data from two samples. The first set of survey data was collected from 530 (161 men and 369 women) psychologists; another set of survey data was collected from 209 senior managers (156 men and 53 women). Results showed that there was a negative relationship between the number of hours of paid work and family work. As hours spent on paid work increased, hours spent on family work decreased. Thus, quantity of hours spent in paid work was strongly related to work-family conflict. And although the number of paid work hours was not significantly different between men and women, average hours spent in family work was significantly less for men compared to women. Not surprisingly women experienced higher work-family conflict as compared to men.

Long work hours have consistently been associated with work-family conflict (Burke, 2002; Higgins et al., 1992; Voydanoff, 1988). In one study (Burke, 2002), data were collected from 2,564 working women to examine the association between work hours and work-family conflict. These respondents represented a broad range in both socio-economic status and occupational status representing nine occupational categories which also included low occupational status. Some of the occupational categories included were: health care workers, teachers, childcare workers, sales personnel, and managers. Results indicated that respondents who reported longer work hours also

reported increased work-family conflict and psychosomatic symptoms. Similarly, in another study, Mazerolle, Bruening, and Casa (2008a) examined work-family conflict among athletic training professionals working in the National Collegiate Athletic Association. Data were collected from 587 respondents (324 men and 263 women). Results showed that long work hours and required travel time were significant predictors of work-family conflict. These studies consistently demonstrate that long work hours may be associated with work-family conflict regardless of occupational status of the employees, as long hours puts limitations on employees' availability to meet family responsibilities. Burke (2002) also found that respondents who belonged to low status jobs also reported lower levels of job satisfaction and emotional and physical health. Job satisfaction and emotional and physical health are also associated with work-family conflict, thus providing an evident that employees who work at poorer jobs and who work long hours are equally at risk for work-family conflict compared to employees who work at professional and managerial level jobs.

Research on the impact of number of hours worked on work-family conflict in other populations shows similar results (Fu & Shaffer, 2001). To examine time-, strain-, and behavior-based work to family conflict, data was collected from 267 academic and non-academic staff working at Hong Kong University. Results indicated that role conflict, role overload, and hours spent in paid work impacted the experiences of work to family conflict. Hours spent on paid work were a significant predictor of time-based and strain-based conflict (Fu & Shaffer).

Building further evidence that number of work hours may be associated with work-family conflict among immigrant workers in the U.S., using the social norms view,

which stresses the importance of social values, Hendricks (2004) examined hours worked in paid employment of immigrant workers in the United States. He found that although in the immigrants' country of origin the norm may be to work fewer hours, after immigration, on average, immigrant male workers work as many hours as native men; immigrant women, when compared with their home country's labor force participation of women, also shift their quantity of hours worked to more closely match that of native women. The increase in average number of hours worked, compared to the country from where the immigrants are migrating, has implications for experiences of stress, and hence strengthens the rationale for the variable, hours worked, to be included in the model as independent variable.

The discussion above provides evidence that the number of work hours, particularly long work hours, is a predictor of work-family conflict in both western and non-western cultures. Number of hours worked is included as an independent variable for this research.

Work schedule.

With changes in the economy, demography, and technology, many work sites are commonly operating 24 hours a day and 7 days a week (Presser, 2003). This has given rise to nonstandard work schedules including: weekend work, variable days worked, and part-time work to meet the demands of the work operations. Today, the "standard" daytime, 9-5 work week extending from Monday to Friday is occupied by only 29.1% of employees (Presser, 2003). According to Presser, the low-income working poor are more likely to work a nonstandard work schedule as compared to higher-income employees, resulting in economic, physical, psychological, and social stressors.

To study the effect of work schedule on work-family conflict, Staines and Pleck (1983) examined the 1977 Quality Employment Survey (QES), and found that nonstandard work hours (identified as afternoon, night, or rotating shifts) and work hours were associated with higher experiences of work-family conflict.

Traditionally, family members spend time with each other in the evening, between dinner and bedtime, and employees who work night, evening, or rotating shifts are not able to spend as much time with their family (Galinsky, Bragonier, Hughes, & Love, 1987). Thus, shift-work is associated with less time available for family roles and difficulty in meeting non-work obligations, as work schedules may not match with other members of the family.

In one study, Maurice (1975) found that a very high percentage (66%) of employees reported that shift work interfered with family life, and also reported experiencing elevated levels of work to family conflict. Nonstandard work shifts (i.e. non-day shifts) are also significantly associated with negative impacts on family life as well as on employees' health (Kinnunen & Mauno, 1998). In another study, results showed that although night shift workers were able to spend time with family and children during the daytime, their spouses reported to have to deal with the majority of family responsibilities and thus experienced high work-family conflict (Weiss & Liss, 1989).

Another set of research studies suggests that working nonstandard hours can be used as a tool to meet work and family demands. Use of nonstandard work hours is more prevalent among married couples, and a significant percentage of them have reported that they opt to work non-standard schedules as a strategy to meet demands at work and in the

family domain (Presser, 1988). With the availability of many work-schedules and shifts from which to choose, an alternative work schedule may provide employees an opportunity to opt for a schedule that best meets their demands at work and at home. Increases in schedule control improve work-family balance, therefore decreasing work-family conflict (Fenwick & Tausig, 2001). Sometimes shift work may be a solution to child care arrangements (Presser, 1988). For example, in a low-wage family where both partners are working to make the ends meet, putting children in a day-care would mean additional financial burden on the family. If one parent could work a morning shift and the other an afternoon shift or have a flexible work schedule, the children may be able to be taken care of at home. Some balance may be achieved, and the shift work arrangement may have significant effect on decreasing work-family conflict. Other research suggests that having control over work hours mediates the negative impact of shift work (Staines & Pleck, 1984; 1986; Swanberg, Pitt-Catsouphes, Drescher-Burke, 2005) as it allows the employees to select work hours that best meet their needs.

Using the Current Population Survey (CPS) administered by U.S. Census Bureau for the Bureau of Labor Statistics, Presser (2003) examined the data collected in 1997 from about 50,000 households and studied work schedule variables. A nonstandard work schedule was identified as a nonstandard shift/work hours or work on a nonstandard day. A standard work schedule was defined as a fixed day which included job activity occurring from eight in the morning to four in the evening. Nonstandard hours included fixed evening schedules (4 p.m. to 12 a.m.), fixed nights (12 a.m. to 8 a.m.), rotating shifts (days to evenings or nights), and an irregular schedule. Results indicated that employees were constrained by the nature of job to accept nonstandard hours. Education

and job characteristics were also related to nonstandard shift work. College-educated individuals were significantly less likely to work nonstandard shifts compared to employees who had completed high school. Furthermore, employees working in service industries (37.2%) and operative, fabricators, and laborers (38.6%) were most likely to work nonstandard shifts. Being an hourly wage (as opposed to salary) earner also increased the likelihood of working nonstandard hours. Race and ethnicity had an implication for working nonstandard schedules. Non-Hispanic whites were least likely (18.8%), non-Hispanic blacks were most likely (24.4%), and Hispanics fell in between these two categories (21.2%) in terms of the likelihood to work nonstandard work hours. These statistics indicate that immigrant workers are more likely to work at non-standard hour shift, which has implications for experiencing higher job demands and higher work-family conflict.

The Migration Policy Institute report (2004) on immigrant workers using the 2002 Current Population Survey data reported that of the 18.9 million foreign-born workers in the United States, 21% were working in service industry; 18% were working as operators, fabricators, and laborers; and 4% were working in farming, forestry, and fishing industries. As these are the industries where nonstandard work shifts are most prevalent and have job characteristics that most likely encourage nonstandard work hours, immigrant workers are more likely than native workers to work at nonstandard work shifts. Hence this variable is included in the model to examine and understand the impact of work schedules on the experiences of work-family conflict among immigrant and native workers.

Workload pressure.

Work characteristics that require excessive efforts and resources, physical or psychological, are referred to as workload pressure (Ironson, 1992; Pleck, Staines, & Lang, 1980; Thompson & Prottas, 2005; Voydanoff, 2004). Workload pressure can be observed and examined by studying quantitative aspects of work, in which the individual has to do too much work, or qualitative aspects, in which the individual is asked to perform a job that is too difficult (Ironson, 1992). Increased workload pressure requires higher utilization of resources to meet job demands (Coverman, 1989; Goode, 1960). Excessive workload and production pressure in terms of the amount of work to be done has been associated with negative physical and psychological health indicators (Caplan, Cobb, French, Van Harrison, & Pinneau, 1980).

A job may be physically demanding if it requires constant bending, stooping, lifting, or movement that leads to heightened physical exertion. Also, the presence of noxious environmental stimuli like noise level, temperature, or exposure to chemicals could lead to increased stress and strain in employees. Holding a highly physically or mentally demanding job is also perceived as excessive time spent at work (Pleck et al., 1980). This has implications for increased work-family conflict (Thompson & Prottas, 2005) and decreased psychological and physical well-being (Frone, 2000; Thomas & Ganster, 1995).

In their study, Thompson and Prottas (2005) examined the relationship between job pressure and work-family conflict using the 2002 National Study of Changing Workforce (NCSW). Job pressure was measured using nine items that tapped workers perceptions about working hard, the degree to which their work is physically demanding

and tiring, and excessive amounts of work. Results indicated that workload pressure was positively associated with work-family conflict. That is, employees who reported higher levels of workload pressure also reported higher levels of work-family conflict.

In a recent study, Grzywacz et al. (2007) examined physical demands at work and the experiences of work-family conflict among male and female Latino immigrant workers in a poultry processing industry. Physical job demands were assessed using two items: physical workload, and posture and repetitive movement. These measures were made up of nine and six survey items respectively. Results indicated that women experienced higher levels of work-family conflict compared to men. Qualitative and quantitative results indicated that physical and psychological demands at work contributed toward elevated experiences of work-family conflict. Regular awkward positions, recurring movements, lower level of safety, and higher psychological demands were associated with greater work-family conflict among these immigrant women. Among men, greater skill variety demands and psychological work demands contributed most to the experiences of work-family conflict.

According to Capps, Fortuny, and Fix (2007), three out of four immigrant workers work at low-wage and low-skill jobs. Often times these are also the jobs that are that have nonstandard schedules, low pay, and low or no health and pension benefits which have been identified as poor quality jobs (Kalleberg et al., 2000). Immigrant workers are more likely than native workers to work in high-risk, low-skilled, and low-paying jobs (Acosta-Leon et al., 2006). Although, in 2001, the U.S. occupational fatality rate decreased to a low of 4.3 per 100,000 workers, for immigrants it was recorded at 5.7 fatalities per 100,000 workers (Loh & Richardson, 2004). This provides evidence that as

compared to native-born workers, immigrant workers are far more likely to be injured or killed on the job. Immigrant workers, especially Hispanic men, have the highest risk of being injured or killed at work (Acosta-Leon et al., 2006). Some of the high-risk industries identified for fatal injuries for Mexican-born workers are construction, agriculture, forestry and fishing, and manufacturing (Hincapié, 2009). As immigrant workers are more likely to work in service, construction, agriculture, forestry, fishing, and manufacturing industries (Migration Policy Institute, 2004), they are likely to be exposed to jobs that require high levels of physical exertion, awkward positioning, recurring movements, lower levels of safety, and higher psychological demands. These job demands have been associated with elevated work-family conflict (Pleck et al., 1980; Thompson & Prottas, 2005; Voydanoff, 1988). Hence, psychological workload as a measure of workload pressure will be included in the model to examine work-family conflict among immigrant and native workers.

Work role ambiguity.

In the workplace setting there may be incongruence between the employers' and the employees' expected set of behaviors or roles (Katz & Kahn, 1978). The ambiguity of expected roles and behaviors could lead to difficulty in performing work role obligations, understood in this research as *work role ambiguity*. Difficulty in performing role obligations at work could lead to role strain (Goode, 1960). Kahn et al. (1964) identified a three-step process by which work role ambiguity occurs. First, through interaction with other members of the society, the expected work norms and behaviors are communicated to the individual. Second, the individual internalizes these role expectations, and devises anticipated work obligations and rights. Last, the individual behaves to meet those

anticipated job demands. When an employee has to carry out either incompatible work roles at the same time, or there is incompatibility between employers' or employees' expectations of a work role, work role ambiguity is experienced.

In her study, using the 1977 Quality of Employment Survey, Voydanoff (1988) examined the effect of work role characteristics and family structure demands on work-family conflict among 1,027 married respondents. The sample consisted of 757 men and 270 women. To look at work role characteristics, amount and scheduling of work time and job demands were included as independent variables. Job demands were further categorized as workload pressure, work role conflict, work role ambiguity, and enriching job demands. Work role conflict was measured using three items: extent to which respondent cannot satisfy everybody at the same time, must upset some to satisfy others, and must do things that go against their conscience. Results indicated that work role conflict was positively associated with work-family conflict for men in the sample, and work hours and workload pressure are better predictors of work-family conflict among women.

Work is viewed differently in various cultures, and workplace role expectations are also predisposed to culture, social norms, and social practices (Chang & Ding, 1995; Lituchy, 1997). For instance, people from individualistic cultures generally pursue self-interest and choose competitive strategies, whereas people from collectivistic cultures are more likely than those that are not to pursue integrative and cooperative renegotiation strategies and express concern for the interests of the opponent party (Chang & Ding, 1995; Lituchy, 1997). In-group affiliations are viewed in a different way in individualistic and collectivistic cultures. For instance, Lee (2005) found that people from collectivistic

cultures were biased in their performance evaluation and judgments, strongly favoring their in-group; whereas those from individualistic-oriented cultures are more sensitive to ethical issues like favoritism, discrimination, withholding relevant information from customers, and condemning such practices (Christie, Kwon, Stoeberl, & Baumhart, 2003; Goodwin & Goodwin, 1999). Furthermore, due to their differences in cultural orientation, individualists are more likely to favor individual work whereas collectivists are more likely to prefer working in group (Early, 1983; Burgos-Ochoategui, 1998).

Similar results were found by Ng and Van Dyne (2001). They came to a conclusion that collectivistic and feminist-oriented workers avoid leading roles and experience stress and anxiety when they become in charge of a group. In contrast, leadership roles are preferred by individualistic and masculine cultures. Thus, collectivists tend to prefer authoritative leaders, where individualists favor democratic and participative leadership styles (Ali, 1993; Punnett, 1991).

When people move to the United States from a culture where workplace roles and workplace expectations are different than those in the U.S., they may experience strain, which can have an impact on work-family conflict. Hence, work role conflict variable is included in this research as an independent variable to understand whether work role ambiguity is associated with work-family conflict among immigrant and native workers in the United States.

Learning requirements.

Learning opportunities on the job is generally defined as the prospect that allows an employee to enhance his or her credentials and or skills to improve performance at work by attending some kind of training, seminar, or course (Jones & Butler, 1980; Voydanoff, 2004).

Jobs that are challenging, provide variety at work, and offer learning opportunities have proved to offer employees with gratifying and enriching work environments, thus resulting in decreased work-family conflict (Jones & Butler, 1980). Learning opportunities on the job has also been identified as a factor that reduces work-family conflict (Voydanoff, 2004), and thus has not been considered a job demand. Although learning opportunities on the job show a negative relationship with work-family conflict, in this research, learning opportunities on the job is being hypothesized to have a positive relationship with work-family conflict among immigrant workers. In this study, it is anticipated that required learning on the job is experienced as a demand, called *learning requirements* in this study.

On the job learning requirements necessitated by employers are considered essential for the development of organizational human capital as it builds the knowledge necessary to enhance skills and communication and thus is believed to be an important facet of high performance quality workplace (Osterman, 1994). In her study, Voydanoff (2004) found a negative relationship between learning requirements and work-family conflict, although the relationship between learning requirements and work-family conflict was not significant. Sauter and colleagues (1996) examined the impact of managerial practices, organizational culture, and organizational values on perceived

organizational effectiveness and perceived stress. Regression analyses showed a negative relationship between requirements for continuous improvement and perceived stress, as well as career development practices and perceived stress.

In another study, the impact of learning requirements on psychological work adjustment was examined in a retail organization ($N = 1,130$). Results indicated that employees' beliefs about available learning requirements strengthened psychological work adjustment, which was defined as increase in positive job attributes like job satisfaction and decrease in negative job attributes such as job stress (Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004).

Job satisfaction and job stress have consistently been associated with work-family conflict—that is increased job satisfaction and decreased job stress result in lower levels of work-family conflict, whereas lower job satisfaction and increased job stress result in higher levels of work-family conflict (Anderson et al., 2002; Burke & Greenglass, 2001; Frone, 2000; Madsen et al., 2005). Furthermore, as learning requirements impact psychological work adjustment and the experiences of stress, they have implications on health and well-being of an individual (Wilson et al., 2004).

For immigrants, required learning is an important job characteristic for two reasons. When people immigrate to the U.S., their foreign academic and professional credentials and experience may not be recognized or transfer equably (Chiswick & Miller, 2009). Thus, immigrants may be forced to take jobs outside of their skill set, training, or experience, which may result in lower economic opportunities compared to the native workforce (Chiswick & Miller, 2009; Li, 2001; Li & Teixeira, 2007; Wang & Lo, 2005). In their study, Chiswick and Miller (2009) found that 27% of foreign-born

workers were overeducated for their jobs, and 45% were undereducated. When employees are over or undereducated for the jobs that they are performing, there may be a very sharp learning curve to acquire a new set of skills to perform the job responsibilities (Chiswick & Miller, 2009). Learning and advancement opportunities among immigrant workers are identified as a gap in research. Learning opportunities include the availability of English language learning opportunities. Thus ESL is being examined as an example of learning and advancement opportunities among this population.

As more employers are offering employees skills training and English as Second Language (ESL) classes (McGroarty, 1992), there are certain barriers and obstacles associated with these learning requirements especially for the immigrant population. In a qualitative study of 35 Hispanic women, results indicated that these women experienced tension as a result of participating in English language and literacy education (Rockhill, 1990). As they were trying to break out of their status quo, they experienced conflict between continuing their education in pursuit of better opportunities and being stagnant in their job situations (Rockhill, 1990). Many ESL participants have also reported that they felt marginalized because they did not have similar employment and educational opportunities as native workers; this hampered their successful participation in language and skills program. Furthermore, limited opportunities for immigrant workers who took ESL classes to interact with native speakers before, during, and after language and skills training prevented them from integrating with English-speaking people (Rockhill, 1990).

In their study, Duff, Wong, and Early (2000) interviewed 20 immigrant workers who participated in ESL instruction and nursing skills training. They identified that lack

of adequate and affordable childcare, divergent cultural views of women at home and in society, access to programs based on linguistic and employment prerequisites, and low self-esteem and confidence proved to be obstacles that these workers faced in trying to gain access to training. Research has also documented that employees from collectivistic countries evade leading roles and leadership positions. In instances when they have to be in charge, they are likely to experience stress and anxiety (Ng & Van Dyne, 2001). For these workers, learning requirements that would put them in leadership roles would therefore be viewed unfavorably. Consequently, workplace learning requirements for immigrants may be experienced as stressful, prove to be a strain rather than a resource, and contribute toward experiences of work-family conflict.

As discussed earlier, multiple role responsibilities may lead to the experiences of work-family conflict. But, if the individual has some kind of support (often referred to as social support) from other people it enables to manage various role responsibilities at the same time and thus has the potential to reduce the strain experienced (Doef & Maes, 1999; Karasek, 1979). Various studies have documented that the availability of social support reduces the experiences of work-family conflict (Parasuraman et al., 1992; Thomas & Ganster, 1995). In the next section a detailed review of social support at work literature is presented. This will help us to understand the relationship of social support with work-family conflict and also with job demands.

Work-Family Conflict and Social Support

Most individuals have needs which are met through social relationships that are cultivated with other individuals in the society through interactions (Weiss, 1974). Social support is defined as a mutual exchange where emotional and physical comfort is

provided through helping relationships with family, friends, co-workers, and others (Barrera, 1986). Social support can be experienced as a result of the actions taken by others to provide assistance, or the perception that assistance would be available when needed (Kessler, Price, & Wortman, 1985).

If an individual's social needs are left unmet, this may become a source of discomfort, conflict, and strain (Cohen, McGowan, Fooskas, & Rose, 1984; Kessler et al., 1985; Mitchell, Billings, & Moos, 1982). When work and family responsibilities are not accomplished, distress may be experienced; this negative effect of unfulfilled work and family role responsibilities can sometimes be lessened or removed when there is support from paid-help, friends and family or from people at work such as colleagues, co-workers or a supervisor (Burke, 1988; Goff et al., 1990; Greenhaus et al., 1987).

Types of social support.

Social support is difficult to operationalize, as the concept is very broad and socially defined, and hence can change from person to person and place to place (Kaplan, Cassel, & Gore, 1977). Thus, there are variations in the way social support is conceptualized and operationalized in the research literature. The most common definition of social support is conceptualized in perceptual, dynamic, and structural terms. Using the *perceptual* approach, Cobb (1976) defined social support as a belief of an individual that he or she is “cared for and loved, esteemed and valued, and belongs to a network of communication and social obligation.” Schumaker and Brownell (1994) characterized social support as “exchange of resources between at least two individuals perceived by the provider or recipient to be intended to enhance the well-being of the recipient” (p.13). These explanations of social support describe it as a *dynamic process*.

House (1981) defined social support in terms of various *structures and composition*. In his assessment, there are four main categories of social support: 1) emotional support, 2) appraisal support, 3) informational support, and 4) instrumental support. Emotional support is the most universally acknowledged form of social support which is usually received by the individual from family members and close friends; furthermore, it takes into consideration the dimensions of empathy, esteem, concern, caring, love, and trust. Appraisal support deals with the communication of information which could be in the form of affirmation, feedback, or social comparison from family, friends, co-workers, and community resources. Informational support is the response to personal or situational demands of guidance, suggestion, or directions given by one individual to another. Instrumental support is the most tangible and direct form of social support whereby help is provided in currency, time, in-kind assistance, or other overt interventions.

Social support at work.

With systemic and structural changes in the work and family arenas, these domains started to be viewed as mutually inclusive. To meet the challenges of work and family role responsibilities, a need was recognized for policies and practices that supported employees in meeting their varied demands. One example of formal support is the federal Family and Medical Leave Act (1993). This Act requires employers with 50 or more employees to provide their employees with up to three months of unpaid time off for the birth or adoption of child, to care for an aging relative or to address a personal or family health-related matter.

The evidence that social support at the work reduces the experiences of work-family conflict (Anderson et al., 2002) has paved the way for employers to consider offering various formal and informal social supports to employees. As stated earlier, social support has been categorized into various types such as instrumental, informational, and emotional which can be provided to employees via various sources such as organizational policies, supervisors and managers, and co-workers. Some of the strategies suggested by Greenhaus and Parasuraman (1986) to reduce work-family conflict among employees are to provide flexible work arrangements, as well as information and support services. A framework to provide social support to employees at work proposed by Nelson and Quick (1991) also included informational support, emotional support, instrumental support, and appraisal support.

The most commonly explored workplace supports are from supervisors and co-workers (Lim, 1997; Stephens & Sommer, 1995; Wadsworth & Owens, 2007). Lack of managerial support at work is related significantly to higher work-family conflict (Anderson et al., 2002). Supervisor support and co-worker support has been associated with lower work-family conflict, and lack of support is related to higher levels of work-family conflict (Goff et al., 1990; Greenhaus et al., 1987; Stephens & Sommer, 1995; Wadsworth & Owens, 2007).

Social support at work and work-family conflict.

Prior research supports the argument that social support at work is a predictor of work-family conflict (Frone, Yardley et al., 1997; Shinn et al., 1989; Stephens & Sommer, 1995; Voydanoff, 2004; Wadsworth & Owens, 2007). Wadsworth and Owens (2007) examined the influence of social support from supervisors and co-workers on

individuals' perception of work-family conflict. Data were collected from 341 respondents in two western U.S. cities. They found that supervisor support was negatively and significantly related to work-family conflict, and co-worker social support was also negatively related to work-family conflict, meaning as the level of supervisor support and co-worker support increased, experiences of work-family conflict decreased.

In another study, to examine the effects of family supportive organizational policies and practices on work-family conflict, Thomas and Ganster (1995) collected data from 398 health professionals. A direct effect model indicated that supervisor social support contributed significantly toward the experiences of work-family conflict. An indirect effect model showed that supportive practices, in terms of flexible schedules and supervisor social support, contributed toward the employees' perception of control over family and work which in turn was associated with lower levels of work-family conflict.

Expatriates' perceived organizational support and spouse support were examined as contributors to adjustment and job performance (Kraimer, Wayne, & Jaworski, 2001). The results showed that adjustment at work was directly affected by perceived organizational support, which, in turn, affected their performance. Spouse support was not related to either performance or adjustment at work, indicating that social support at work is a better predictor of outcomes at work. These studies highlight the importance of social support at work to reduce the experiences of work-family conflict and also that it could be used as a strategy to reduce the negative consequences of work-family conflict.

Immigrants and social support.

When immigrants move from one country to another they may face multiple stressors in the process of integrating into new society and learning new way of life

(Vega & Rumbaut, 1991). Although this process of acculturation has been recognized to produce strain, which results in negative implications for physiological, psychological, and emotional well-being (Hovey & King, 1996), social support has been associated as a culturally protective factor which safeguards individuals by moderating and mediating the harmful effects on individuals' well-being (Finch & Vega, 2003).

Human capital and social network/capital perspective explain the destination choices of immigrants, as they are more likely to migrate to geographic locations where they already have family or friends. Previous research has identified that migrant social capital is significantly correlated to destination choice (Massey, Rafael, Jorge, & Gonzales, 1987; Wilson, 1998) as these destinations provide them with the support needed to integrate and live in new society and culture. Higher levels of contact with family and friends among this population are related to increased emotional support (Vega, Kolody, Valle, & Weir, 1991). Thus, immigrant social networks are characterized by the accessibility and availability of family and friends. The availability of social support from family and friends may help to diminish perceived demands at work, and the experiences of conflict may be reduced by the individuals' knowledge that help and support is available.

Immigrants and social support at work.

Although the literature on social support at the work and its impact on work-family conflict among immigrants are slim, some evidence suggests that immigrant workers are less likely to receive social support at work. Social support for immigrant workers, especially in organizations where they are a minority, may be limited due to in-group out-group relations (Chen, Brockner, & Katz, 1998). Employees who are a

minority in their workplaces are less likely to have supportive relationships with their supervisors and co-workers (Ely, 1994; Kanter, 1977; Tsui, Egan, & O'Reilly, 1992). Being an immigrant may put an employee in a minority group, and thus reduces the availability of social support from supervisors and co-workers. Data collected for the Los Angeles Epidemiology Catchment area was analyzed to examine social integration in terms of existence and quality of relationships, and social support in terms of emotional support from supervisors, co-workers, relatives, and friends among 1,149 non-Hispanic whites, 538 U.S.-born Mexican Americans, and 706 Mexico-born Mexican Americans (Golding & Baezconde-Garbanati, 1990). Results indicated that lesser emotional support was received by Mexican Americans as compared to non-Hispanic whites. Mexican Americans and immigrants also reported fewer friends, less emotional support, smaller family networks, and lower employment rates. Greater supervisor and co-worker support was reported by U.S.-born Mexican Americans and non-Hispanic whites as compared to Mexico-born immigrants.

To examine the effect of social support on psychological distress, data were collected from 171 Mexican American men and women from lower socio-economic status. Social support from friends, partners, relatives, roommates/housemates, supervisors, and co-workers was measured. Results indicated that among men, decreased social support from relatives was predictive of depression (Aranda, Castaneda, Pey-Jenan, & Sobel, 2001). Social support from supervisors and co-workers was not a good predictor of depression among this population, strengthening the argument that because of in-group out-group relations these workers are less likely to receive and expect social support at work. Research has demonstrated that social support at work has the potential

to reduce deleterious experiences of work-family conflict. As discussed earlier, immigrants are less likely to receive and perceive social support at work and thus are exposed to the risk of experiencing increased incidence of work-family conflict.

Organizational psychology literature examines the effect of job demands on employees and organizations for over five decades. Similar to the effect that job demands can have on work-family conflict, which is rooted in the role theory, family life can create significant work-family challenges for working people. Although the impact of family demands on the experiences of work-family conflict has not been studied as extensively as the effect of job demands on work-family conflict, it has been established that certain characteristics of family life contributes toward the experiences of work-family conflict and is positively related to work-family conflict (Baruch, Biener, Barnett, 1987; Greenhaus & Beutell, 1985). In the next section an association between family demand and work-family conflict is reviewed.

Family Demands and Work-Family Conflict

A positive relationship was found between family responsibilities, such as taking care of children and doing house chores, and work-family conflict (Greenhaus & Kopelman, 1981). Higher levels of family responsibilities may result in greater expenditure of time and energy in the family domain (Greenhaus, Parasuraman, Granrose, Rabinowitz, & Beutell, 1989), which may leave insufficient resources to meet work requirements resulting in work-family conflict. Responsibilities of a family role are strongly associated with the life cycle stage of the family (Gutek et al., 1991; Voydanoff, 2005b), as family responsibilities increase with care giving responsibilities. Life stage of an individual, in terms of parenthood or presence of children in the household, places

increased responsibilities on working parents and may create family role strain (Hill et al., 2008). Research indicates that working parents have higher work-family conflict than non-parents (Hill et al., 2008).

Studies document that high family responsibilities are experienced by parents of infants and preschool children (Lopata, 1966). Comparatively, lower family responsibilities are experienced by parents of children who are of school going age, and lowest by the parents of adult children not living at home (Osherson & Dill, 1983). Degree of parental demands experienced depends on presence or absence, number and ages of children at home; having a child of any age, compared to having no children, is associated with more family to work conflict (Grzywacz & Mark, 2000).

Age of children significantly contributes to the experiences of family to work conflict, as child age often determines the level of care and need. Having preschool children is a significant predictor of work-family conflict (Greenhaus & Kopelman, 1981; Kelly & Voydanoff, 1985), and having school-age children is associated with less availability of time (Voydanoff & Kelly, 1984), which is an important predictor of work-family conflict. In her study, Voydanoff (2005) found that respondents who reported to have a child six years or younger. Report a higher incidence of family to work conflict.

Family life and working immigrants.

Family structure and family demands contribute toward the experiences of work-family conflict (Boyar et al., 2003). Providing care to children, elders, and other family members and life-cycle stage of an individual has implications for the experiences of work-family conflict (Higgins, Duxbury, & Lee, 1994). For example, marriage or birth of child increase family demands (Keith & Schafer, 1991; Voydanoff & Kelly, 1984).

Workers with care giving responsibilities are more likely to experience significant family demands (Karasek, 1979; Staines & O'Connor, 1980).

Demands experienced in family domain along with those of the work domain may have an additive impact on the experiences of work-family conflict (Higgins et al., 1994). Family responsibilities may make it difficult for some workers to be able to attend to job demands or they may not leave enough energy to juggle the demands of work and family life resulting in work-family conflict (Baruch et al., 1987; Greenhaus & Beutell, 1985). Although this dissertation research only looks at workplace factors that contribute to the experiences of work-family conflict, insight into the demands within the family domain helps to provide a greater understanding of work-family conflict.

A high percentage of immigrant families residing in United States have children living with them. Although immigrant workers comprised a little over 12% the labor force in 2004 (Congressional Budget Office, 2005), nearly 22% of the children in United States lived within immigrant families (Kids Count, 2004). Among employed immigrants, nearly 47% reported that they had a child less than 18 years of age (NSCW, unpublished data, 2002). These findings suggest that a significant number of immigrant employees who are managing work may also have family responsibilities.

Experiences in one life domain have impacts on other domains. Thus, there is a similarity between the experiences and occurrences in work and family domains (Edwards & Rothbard, 2000; Thompson, Kirk, & Brown, 2005) as unpleasant mood spills over from family to work and from work to family (Williams & Alliger, 1994). In this dissertation research, strains experienced in the family domain in terms of parental demands will be also examined in the experiences of work-family conflict.

Other Factors that May Contribute to Work-Family Conflict

Socio-demographic variables have often been used as control variables when studying the predictors and consequences of work-family conflict, as these variables have consistently been associated with work-family conflict. Socio-demographic variables have strong implications on family structure as well as career and job choices, which affect ideal work hours, schedule fit, and family activities (Becker & Moen, 1999; Voydanoff, 1988), which, in turn, impacts work-family conflict. In this study, in addition to age, education, and income, which are the indicators of socio-economic status, gender, marital status and parental status will also be included in the model to examine their contribution in the experience of work-family conflict among immigrant and native workers. Pertinent to the population of this study, immigrant workers, length of stay in the U.S. will also be included as a socio-demographic variable. Age has significant impact on individual career stage and life stage, affecting the choice of work schedule and the number of hours worked (Becker & Moen, 1999; Voydanoff, 1988). Oftentimes, early career stage corresponds with life cycle developmental stage, when the individual is more likely to form relationships and start a family. Thus career stage and life stage have implications for the experiences of work-family conflict (Staines & Pleck, 1984; Voydanoff, 1988). In her study, Voydanoff (1988) found that there was a negative correlation between age of employees and work-family conflict, thus strengthening the argument that as age increases, decreased work-family conflict is experienced and vice-versa.

Besides age, education has an effect on work-family conflict (Voydanoff, 1988; 2005). A statistically significant positive correlation has been documented between

education and work-family conflict (Voydanoff, 1988), demonstrating that as education increases, work-family conflict increases. In a study done by Kinnunen and Mauno (1998) on 501 employees working in four organizations, age and education explained 11% of variance in work-family conflict among men. These results are similar to Voydanoff's (1988) results in terms of the effect of education on work-family conflict. Fenwick and Tausig (2001) studied the consequences of alternate work schedules on the experiences of work-life balance, and found that work-life balance was greater among respondents who had less than a high school degree, and lower among those with an undergraduate or advanced college degree. While comparing work-life balance among different professions, they found that blue collar workers reported greater work-life balance as compared to professionals.

Income has also been used as a covariate in various work-family conflict studies (Frone, 2000; Rice et al., 1992; Wallace, 1997). A strong association between work-family conflict and income has been established. In his meta-analysis of 60 studies, Byron (2005) found that employees who reported higher income also reported higher work interfering with family. As immigrants are more likely to be younger, to have lower educational credentials, and work at low paying jobs (Clark, 1998; Hatton, 1997) and as these factors have been associated with work-family conflict, age, education, and income will be included to examine their impact on the experience of work-family conflict.

Various studies have documented that work-family conflict is experienced differently by men and women (Gutek et al., 1991). Women experience higher levels of work-family conflict as compared to men (Gutek et al., 1991; Martins, Eddleston, & Veiga, 2002; Wiersma, 1990). Similar results have been documented in comparative

studies between different cultures (Ottaway & Bhatnagar, 1988). With the exception of one study by Grzywacz et al. (2007), work-family conflict has not been studied among the U.S. immigrant population. In this research, the impact of work demands on work-family conflict was studied among immigrant men and women in the U.S. labor force. Results indicated that women experienced higher levels of work-family conflict and higher levels of physical demands as compared to men. Thus, gender will also be included to examine its impact on the experience of work-family conflict.

Partner status also has implications in terms of increased responsibility in family domain (Stains & Pleck, 1984; 1986) thus partner status is also being included as a socio-demographic variable. Family structure in terms of partner status, number of children, and age of children may lead to increased family demands, thus increasing the likelihood of work-family conflict (Greenhaus & Kopelman, 1981).

Immigrants who migrated to United States in recent years are more likely to be poor in comparison to immigrants who came to the U.S. earlier (Borjas, 2007; Tienda, 2002). In their study, Wong and Hirschman (1983) found that immigrant women, although reporting higher educational attainment and full-time work compared to native women, earned lower wages as compared to native women. Nonetheless, this difference in wages for immigrant women dropped as their length of stay increased and they reported above average earnings.

Immigrant underemployment is greater than that of native-born minorities as immigrant workers also face initial disadvantages in labor force assimilation (De Jong, & Madamba, 2001). Crouter, Davis, Updegraff, Delgado, and Fortner (2006) found that Mexican-American fathers' demanding occupational conditions were linked to fathers'

and family members' depressive symptoms and were moderated by the acculturation level of the family. With increased acculturation, family's income and depressive symptoms improved.

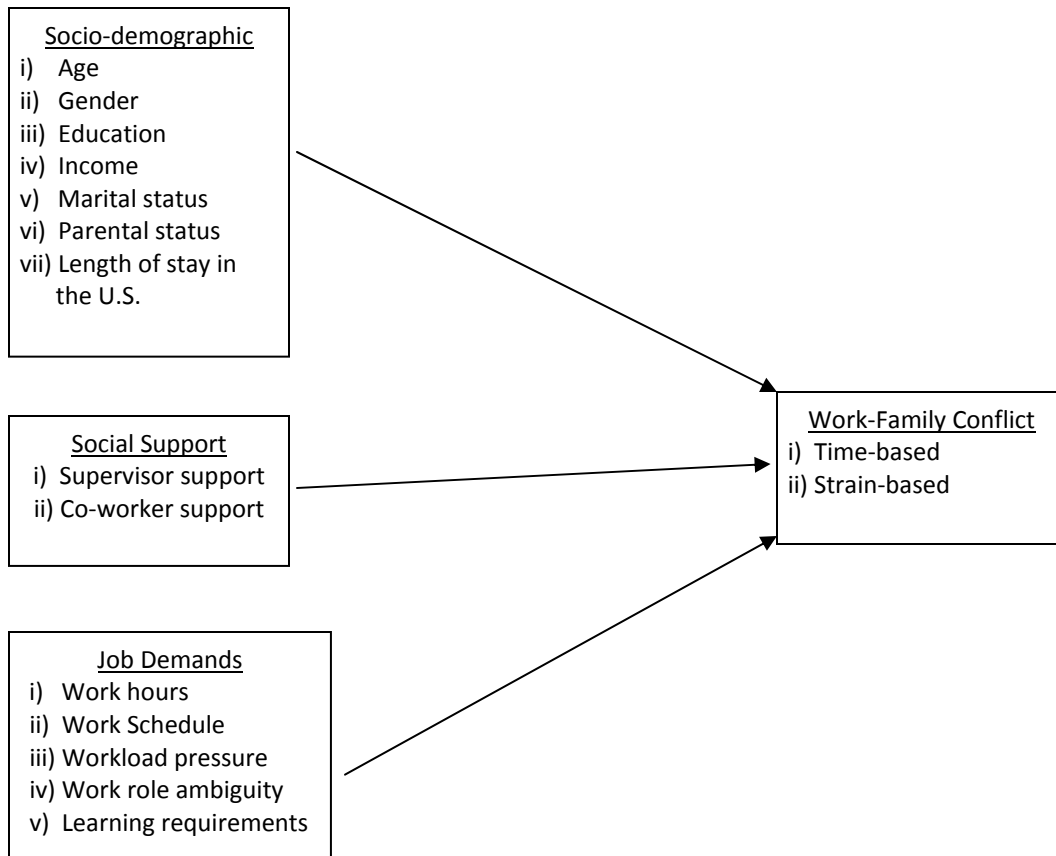
Thus, recent immigrants are more likely to work in jobs where the demands are high, which have implications for work-family conflict. As the length of stay increases and the workers become more acculturated to the new labor force, this difference diminishes. It is recognized that as acculturation increases with increased time of stay in the U.S., it potentially could have an impact on how work-family conflict is experienced, and hence length of stay in the U.S. and its impact on work-family conflict is examined.

The Current Study: Empirical Model

This exploratory study sought to examine the association between job demands and work-family conflict among immigrant and native workers in the United States, and to determine whether social support at work reduces the experiences of work-family conflict. As noted in the empirical model of the study (Figure 1), socio-demographic variables, job demands variables and social support at work variables will be included in the multivariate analysis. In the next chapter, a detailed description of how the study was conducted, along with a detailed description of study variables are presented.

Figure 1.

Understanding Social Support and Job Demands at Work that Contribute to Work-Family Conflict



Chapter Three: Methodology

The overview of literature in the previous chapter indicated that certain job demands could increase the likelihood that a worker experiences work-family conflict. We also learned that the availability of social support at work has been shown to reduce the incidence of work-family conflict. The previous chapters also reveal a gap in the literature on work-family conflict. Specifically, very few studies have examined work-family conflict among an immigrant population working in the United States, and even fewer have examined the relationship between various job factors and work-family conflict among this population. To date, most of the research on work-family conflict conducted in the United States has relied on native worker populations.

To address this gap in knowledge about work-family conflict among immigrant workers, this exploratory study was designed to determine: 1) possible differences among immigrant and native workers' experiences of job demands, social support at work, and work-family conflict; 2) socio-demographic characteristics, job demands and social support at work that are correlated with work-family conflict among immigrant and native workers; and 3) possible associations between socio-demographic characteristics, job demands and social support at work and work-family conflict among the immigrant and native workers. This chapter provides a detailed description of the methodology that was used in this study. The research questions are identified, followed by a description of the sample, management of the data, and research measures.

Research Questions

The purpose of this study was to understand the relationship between job demands, social support at work, and work-family conflict among immigrant and native

workers in the United States, and to determine if there are differences among the two groups by answering the following research questions.

1. Are there differences between immigrant and native workers perceptions of job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support at work (supervisor and co-worker), and work-family conflict (time-based and strain-based)?
2. Is there a relationship between time-based work-family conflict and job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic characteristics (age, gender, marital status, parental status, income, and education) among immigrant (among immigrant workers also included length of stay in the United States) and native workers in the U.S.?
3. Is there a relationship between strain-based work-family conflict and job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic characteristics (age, gender, marital status, parental status, income, education, and length of stay in the United States) among immigrant (among immigrant workers also included length of stay in the United States) and native workers in the U.S.?
4. Which of the job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic (age, gender, marital status, parental status, income, education and number of years in the United States) variables are associated with time-based

and strain based work-family conflict among immigrant and native workers in the U.S.?

Overview of the Study Sample

This section describes the overall study sample, followed by descriptions of the immigrant and native worker samples.

Total sample.

As noted in Table 3.1, 58% of the overall sample identified as female. Sixty-four percent identified as White, 11% as African American, and 24% identified as other. Twenty-eight percent of respondents had an education level less than or equal to a high school degree or GED; 34% had some post-secondary education; and the remaining 38% had a 4-year college degree or more. Approximately 62% reported being married or living with a significant other, and 58% reported having a child under 18 years old in their household. The mean age among the total sample was 40.97 years ($SD = 12.29$) with a range from 18 to 74 years. Eighty-one percent of the respondents reported that they worked a full-time job, and average annual income of the participants was \$43,194.00 ($SD = \$61,406.00$).

Immigrant sample.

As evidenced in table 3.1, almost 53% of the immigrant sample identified as female. Forty-three percent of respondents identified as White; 15% as African American; and the remaining 40% identified their race as “other.” Thirty percent reported having an education level less than or equal to a high school degree or GED; 27% had some post-secondary education; and 43% reported having a 4-year college degree or more. Approximately 59% of respondents reported that they were either

married or were living with a significant other, and 47% reported having a child under 18 years old in their household. The mean age for immigrant workers was 39.12 years ($SD = 12.14$) with a range from 18 to 68 years. Eighty percent of the respondents reported that they worked a full-time job, and the average annual income of the participants was \$38,343.34 ($SD = \$27,753.00$). Immigrant workers' mean years in the United States was reported as a little over 19 years ($SD = 13.44$ years).

Native workers.

As noted in Table 3.1, sixty-three percent of native workers reported being female. Eighty-four percent identified as White; 7% as African American; and 8% as "other." Twenty-seven percent had less than or equal to high school degree or GED; 41% had some post-secondary education; and 33% had a 4-year college degree or more. Approximately 64% of the respondents reported that they were either married or were living with a significant other. Thirty-six percent of native workers reported having a child less than 18 years of age. The mean age of native workers was reported as 42.73 years ($SD = 12.14$) with a range from 18 to 68 years. Eighty-three percent of the respondents reported working a full-time job, with an average annual income of \$47,667.82 ($SD = \$80,737.48$).

There were significant group differences between immigrant and native workers: educational attainment, parental status, and age. Thirty percent of immigrant workers had less than high school degree or GED compared to 27% of native workers; 27% of immigrant workers had some post secondary education compared to 40% of native workers; and 43% of immigrant workers had a 4-year college degree or higher compared to 33% of native workers. In terms of race, fewer immigrant workers reported to be

White, 43% compared to 84% of native workers. A higher proportion of immigrant workers reported their race to be Black, 15% compared to 7% of the native populations. Immigrants were far more likely to report their race as “other” than native workers, 40% compared to 8%. Forty seven percent of immigrant workers reported that they were caring for a child less than 18 years of age as compared to 36% of native workers. There was also a significant group difference between immigrant workers age ($M = 39.12$, $SD = 12.14$) and native workers age ($M = 42.83$, $SD = 12.20$). Immigrant workers in the labor force were younger compared to native workers.

Table 3.1

Description of Total, Immigrant, and Native Worker Samples

	Total Sample		Immigrant Workers		Native Workers							
	<i>N</i>	%	<i>n</i>	%	<i>n</i>	%						
Gender	(<i>n</i> =322)		(<i>n</i> =157)		(<i>n</i> =165)							
Male	135	42	74	47	61	37						
Female	187	58	83	53	104	63						
Education	(<i>n</i> =322)		(<i>n</i> =157) *		(<i>n</i> =165)*							
<=High sch./GED	91	28	47	30	44	27						
Some post secondary	109	34	42	27	67	41						
4 yr. college degree +	122	38	68	43	54	33						
Race	(<i>n</i> =317)		(<i>n</i> =154)***		(<i>n</i> =163)***							
White	205	64	67	43	138	84						
Black	36	11	24	15	12	7						
Other	76	24	63	40	13	8						
Marital status	(<i>n</i> =322)		(<i>n</i> =155)		(<i>n</i> =165)							
Married/living together	198	61.5	92	59	106	64						
Single/divorced/separate	122	37.9	63	40	59	36						
Parental Status (child < 18)	(<i>n</i> =322)		(<i>n</i> =157)*		(<i>n</i> =165)*							
Yes	134	58	74	47	60	36						
No	188	42	83	53	105	64						
	Total sample				Immigrant Workers				Native Workers			
	Mean	<i>SD</i>	Min	Max	Mean	<i>SD</i>	Min	Max	Mean	<i>SD</i>	Min	Max
Age	40.97 (<i>n</i> =322)	12.29	18	74	39.12** (<i>n</i> =157)	12.14	18	68	42.83** (<i>n</i> =165)	12.20	18	74
Income	\$43,194	\$61,406	\$400	\$980,372	\$38,343	\$27,753	\$588	\$19,6078	\$47,667	\$80,737	\$400	\$980,392
Years in U.S. for immigrants					19.05 (<i>n</i> =156)	13.44	0	60				

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Data

To address this study's research questions, secondary data, the *2002 National Study of the Changing Workforce*, was used. Initiated by Families and Work Institute, the *National Study of the Changing Workforce* (NSCW) collects data from a nationally representative sample of the U.S. labor force every five years. The first three surveys were conducted in 1992, 1997, and 2002. The fourth data set, the 2008 NSCW, was released in June 2010. For the purpose of this dissertation research 2002 NSCW data set was used.²

The NSCW is the only study of its kind to contain in-depth information on the respondents': personal, household, and job characteristics; perceived dimensions of organizational culture; access to work-family policies and practices; work-family conflict; and personal well-being (Bond, Thompson, Galinsky, & Prottas, 2002). The NSCW data set has been widely used by researchers to examine the work-family interface and its implications for individuals, families, and organizations (Anderson et al., 2002; Thompson et al., 2005; Voydanoff, 2004; 2005) on outcomes such as physical and psychological well-being, family satisfaction, job satisfaction, and retention in the workforce.

To be eligible to be included in the 2002 NSCW, respondents had to meet the following criteria: (a) worked at either an income producing business, or wage or salaried job, (b) were part of the civilian labor force, (c) were 18 years of age or older, (d) resided in the 48 contiguous U.S., and (e) lived in a non-institutional residence.

²2008 NSCW dataset is not being used in this dissertation research as this study and analysis were already well underway before the data set was available as a public access file.

Telephonic interviews were conducted to collect data by using a computer-assisted telephone interviewing (CATI) system. The survey questionnaire used in the 2002 NSCW was developed by Families and Work Institute. Interviews, on average, lasted for about 45 minutes, and were completed nationwide by a cross-section of employed adults between October 2002 and June 2003. Random-digit-dialing method was used to generate an unclustered, random probability sample, which was stratified by region.

Fifty to sixty calls were made to interview individuals in the eligible households. Of the 28,000 telephone numbers called, 14,778 numbers were identified as non-working or non-residential phone numbers, 3,609 telephone numbers were confirmed as ineligible households, and 3,578 households were determined as eligible. In 6,035 of the cases where eligibility or ineligibility could not be determined, 3,146 households were estimated as eligible households. Finally, interviews in English or Spanish were conducted with 3,504 households. A response rate of a little over 52% was yielded from the potentially eligible households. A cash incentive of \$20 was given to all respondents.

Data Management

The 2002 NSCW includes 3,504 wage, salaried, and self-employed workers, out of which 2,810 are wage or salaried workers. As workplace dynamics are different for self-employed than wage and salaried workers, for the purpose of this study, the wage and salary public access data file was used (Prottas, & Thompson, 2006; Tetrick, Slack, Da Silva, & Sinclair, 2000). To address the stated research questions, a data file was created, and a sample was extracted from the unweighted wage and salaried data file through a three-step process. First, the immigrant worker sample was extracted and saved

in a separate file. This was done by identifying workers who responded “yes” to the question: “Are you an Immigrant?”. One hundred and seventy-seven workers self-identified as being an immigrant. Second, to identify a comparison sample of native workers, 178 non-immigrant workers were randomly selected from a modified wage and salary file that removed all the immigrant workers using the select function “random sample of cases.” This native worker subsample was saved in a separate file. The third step combined the immigrant and native worker subsamples. This process yielded a sample of 355 cases, with each category representing 50% of the study sample.

Cleaning the data and handling missing data.

After the study sample was created, data were cleaned using univariate analysis. Data were analyzed for errors and missing data by running descriptive statistics for each variable. Through this process, it was determined that 30 cases had data missing from the nine supervisor support questions. Closer examination revealed that the respondents who did not have one particular person as their immediate supervisor or boss had left these questions unanswered. Because these cases comprised about 8.5% of the study sample, it was determined that these cases would be excluded from the analysis; as these missing cases may have distorted coefficients and correlations (Kalton & Kasprzyk, 1982) and skewed the results. Deleting these cases from the sample left a total sample of 325 cases of immigrant workers ($n = 159$) and native workers ($n = 166$).

The remaining sample of 325 cases was further examined for missing data by running descriptive statistics. Analysis revealed that three variables had fewer than 10 missing cases.³ The values of missing cases for these three variables were replaced with

³ Total hours worked had 9 missing cases or 2.8% of the sample; workload pressure had 4 missing cases or 1.2% of the sample; and learning requirements had 4 cases missing or 1.2% of the sample.

means, using the SPSS function, “replace missing values.” Mean value for the three variables total hours worked, workload pressure, and learning requirements were 42.67, 16.99, and 16.92 respectively. The minimum and maximum values for total hours worked were 9 and 84; for workload pressure and learning requirements the minimum and maximum values were 6 and 24 and 5 and 20 respectively. Multivariate outliers analysis indicated that there were three outliers; these cases were eliminated from the data set, which left a final study sample of 322 (immigrant workers, $n = 157$; native workers, $n = 165$). Univariate distribution on variables was assessed for normality.

Linearity, normality, and homoscedasticity.

A scatterplot matrix of all independent and dependant variables was created to examine linearity, normality, and homoscedasticity. Scatterplot shapes consisting of variables that were not close to elliptical were reevaluated for univariate normality and were transformed. A residual plot was also produced to examine linearity, normality, and homoscedasticity; it was determined that the assumptions were not violated as the residual points were not clustered at the top, bottom, left, or right, but they cluster along a horizontal line in a somewhat rectangular fashion. The tolerance statistics calculated with the two social support variables, the three job demands variables, and the two work-family conflict variables indicated that multicollinearity between these variables was not an issue. To examine multicollinearity, tolerance statistics was checked and a value of 0.1 served as a cutoff point. A tolerance value less than 0.1 indicated that multicollinearity was a problem (Norušis, 1998), but none of the variables had tolerance statistics below 0.1 indicating that multicollinearity was not a problem.

Weighting the data.

Authors of the 2002 NSCW created a variable to weight the wage and salaried sample to the entire U.S. population of wage and salaried workers. When weighted, the immigrant sample increased to 256 workers from the initial 177 immigrant workers. It was determined that the unweighted data would be used for this study because it is likely that the initial sample of 177 immigrant workers would be more affected when weighted. The weighted data file contained close to 36% more cases without actually increasing the respondents and as sampling is done at a very different rate including them in the analysis could have produced inflated results (Korn & Graubard, 1995).

Power analysis.

To determine whether the sample was large enough in terms of statistical power, a post hoc statistical power online calculator, statistics calculator version 2.0 by Soper, D (2011) for multiple regression was used. Statistical power helps to detect a significant effect size of the model and likewise the ability of the test to reject a false null hypothesis, also commonly referred to as type II error, as power increased the probability of type II error also decreases. It was determined that with an alpha of .05, observed $R^2=.32$, and fourteen predictor variables in the model the specified observed power was calculated at .99, indicating that the sample was sufficiently large to run the analysis for the model specified.

Factor analysis.

Although measurement development was not the purpose of this dissertation, factor analysis was done to examine the structure of data that would be combined to form key scales consisting of four or more items that would subsequently be included in the

analyses. To determine sample size adequacy to perform factor analysis, a 10 to 1 ratio of respondents to items, as recommended by Nunnally (1978), was taken into consideration. Given the recommended ratio, 10 cases for each item to be included in the analysis, analyses indicated adequate sample size in this research. The strength of inter-item correlations at .2 or greater was considered to be appropriate (Tabachnick & Fidell, 2001) and was used as a criteria for inclusion of the item in the scale; with at least some correlations of $r=.3$ or greater. To assess factorability of data, Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) were also examined and it was determined that sphericity should be significant ($p < .05$) and KMO value index which ranges from 0 to 1 should have a minimum value of .6 (Tabachnick & Fidell, 2001). Components whose eigenvalues were greater than 1 were retained and as suggested by Stevens (1996) a factor loading of .60 was determined as a cutoff point because in measures that have four or more components a factor loading above .60 is considered to be reliable.

Once the above criteria were established, exploratory factor analysis was used to examine the scales that were used in this study. Because separate scales were created for the two populations, separate factor analyses were conducted for the two samples. Scale principal component analysis with varimax rotation was used to improve interpretability of the analysis of the items that cross-loaded into another component, but none of the items loaded on more than one factor. Examination of inter-item correlations determined that most of the items were correlated at .3 or higher and hence were included in the scale. KMO for all the measures was between .72 and .92 and sphericity was significant at $p<.001$. All of the items used in the scales loaded between .85 and .61 except for one item ("job requires that I work very fast"). The immigrant workers' factor loading for this

item was .41; native workers factor loading was .38. A decision was made to retain this item as its inclusion did not lower the alpha reliability and the reviewed literature also suggested that this was an important dimension of workload pressure. Factor eigenvalue criterion used to extract identifiable factor was set at larger than 1. The analysis confirmed that for all the scales considered to be included in this study, eigenvalues were greater than 1. Factor loadings for each of the scales along with eigenvalue, explained variance and Cronbach's α , are reported for immigrant and native workers in Table 3.2. Factor analysis results will also be discussed as each of the measures is presented later in this chapter.

Table 3.2

Factor and Reliability Analysis

Variable	Immigrant Workers	Communalities	Native Workers	Communalities
	Factor Loading		Factor Loading	
1) Supervisor Social Support				
Sup keeps me informed	.61	.38	.68	.46
Sup has realistic expectation of job	.71	.50	.70	.49
Sup recognizes when I do a good job	.62	.39	.74	.55
Sup is supportive when have problem	.75	.58	.82	.68
Sup is fair around family/personal needs	.74	.54	.80	.64
Sup accommodates family/personal business	.69	.47	.66	.44
Sup understands when talk about family/personal	.80	.64	.77	.59
I feel comfortable bringing up family/personal	.71	.50	.69	.47
Sup cares about effects on family/personal life	.84	.71	.85	.74
2) Workload pressure				
Never enough time to get everything done	.61	.37	.73	.53
Frequently asked to do excessive amounts of work	.75	.56	.65	.43
Frequently feel overwhelmed	.72	.52	.70	.50
Frequently too many tasks in a typical work wk	.73	.53	.83	.64
Frequently interrupted in a typical work wk	.62	.38	.74	.50
Job requires that I work very fast	.41	.17	.38	.15
3) Learning Requirements				
Work I do is meaningful to me	.70	.50	.70	.49
Job lets me use my skills/abilities	.61	.37	.77	.60
Has opportunity to develop own special abilities	.62	.38	.71	.51
Job requires that I be creative	.66	.44	.69	.48
Job require I keep learning new things	.74	.54	.72	.53

Note: Immigrant workers: Supervisor social support: (Eigenvalue = 4.69, Explained Variance = 52.11, $\alpha = .88$); Workload Pressure: (Eigenvalue = 2.52, Explained Variance = 42, $\alpha = .71$); Learning Requirements: (Eigenvalue = 2.24, Explained Variance = 44.77, $\alpha = .68$)

Native workers: Supervisor social support: (Eigenvalue = 5.05, Explained Variance = 56.10, $\alpha = .90$); Workload Pressure: (Eigenvalue = 2.84, Explained Variance = 47.31, $\alpha = .77$); Learning Requirements: (Eigenvalue = 2.60, Explained Variance = 51.95, $\alpha = .76$)

Measures: Instruments and Reliability

Dependent variable: Work-family conflict.

Work-family conflict was assessed using two specific measures of work-family conflict: time-based work-family conflict and strain-based work-family conflict (Greenhaus & Beutell, 1985).

Time-based work-family conflict.

As noted in Chapter 2, time-based work-family conflict is defined as the difficulty experienced in carrying out one role as a result of being involved in and spending time in another role (Greenhaus & Beutell, 1985). Time-based conflict was measured using the frequency or difficulty of three items: (a) not having time for family/important people because of one's job, (b) job keeping one from concentrating on family/personal life, and (c) difficulty taking time during the workday for personal/family matters. The first two questions were measured on a 5-point Likert scale, where 1 = very often, 2 = often, 3 = sometimes, 4 = rarely, and 5 = never. The third question was measured on a 4-point Likert scale (1 = very hard, 2 = somewhat hard, 3 = not too hard, and 4 = not hard at all). Each of these items was reversed coded so that higher values represented higher levels of time-based work-family conflict. A single measure of time-based strain was created by getting a sum of these three variables. As these three items are measured on two different scales, Z-scores of the items were used to calculate the measure (Norusis, 2004). For the immigrant worker sample, Cronbach's α was .54; and for native workers, Cronbach's α was .60. Low alpha reliability of this dependant variable was identified as a limitation in this study and is discussed in more detail in the Discussion section.

Although alpha reliability for this measure was a little low; it is not uncommon to observe low alpha reliability in scales that are short (Briggs & Cheek, 1986). One possible reason for low alpha in this study in comparison to other studies (e.g. Kelloway, Gottlieb & Berham, 1999) could be that in this study the measure was made up of a three-item scale, while other studies have relied on a five-item measure. Examination of the inter-item correlation between time based work-family conflict items indicated that the inter-item correlations are between .18 and .49 and these correlations are significant at .01 level.

Strain-based work-family conflict.

Strain-based work-family conflict is defined as a tension experienced due to the inability to perform family role responsibility as a result of being physically or mentally exhausted due to work, or because of preoccupation with work role responsibility and thus the involvement in one role may make it difficult to fulfill other role requirements (Greenhaus & Beutell, 1985). Using items available in the 2002 NSCW, strain-based work-family conflict was measured by combining three items that measured the frequency of: (a) not having energy to do things with family because of one's job, (b) work keeping you from doing a good job at home, and (c) not being in a good mood at home because of one's job.

These items were measured on a 5-point Likert scale where 1 = very often, 2 = often, 3 = sometimes, 4 = rarely, and 5 = never. In order to represent higher levels of conflict with higher values, these items were reverse coded and summed to make this construct. Alpha reliability for this measure was calculated at $\alpha = 0.81$ for the immigrant as well as native sample, indicating that this measure had good internal consistency.

Items used to measure strain-based conflict were similar to those used by Kelloway, Gottlieb, and Berham (1999) who measured strain-based work-family conflict using five items: having little energy for house chores, do not listen to people at home because I am thinking about work, job puts me in bad mood at home, job demands make it hard to enjoy time at home, and I think about work at home (Table 3.3). In their study, they reported an alpha reliability of $\alpha = 0.76$ for strain-based conflict, which is close to the alpha reliability of this dissertation research.

Table 3.3

Work-to-Family Conflict: Definitions and Measures

Time-Based Work-Family Conflict Definition (Greenhaus & Beutell, 1985)	Measures Used in Current Study	Time-Based Work-Family Conflict Measures Used in Other Studies
a) compliance in one role making it physically difficult to carry out role expectation in another role and	* frequency of not having time for family/important people because of one's job	* Job responsibilities make it difficult for me to get family chores/errands done * Job demands keep me from spending the amount of time I would like with my family
b) preoccupation in one role when one is attempting to fulfill role obligations in another domain.	* frequency that job keeps one from concentrating on family/personal life * difficulty taking time during the workday for personal/family matters	* Have to change plans with family members because of the demands of my job * To meet the job demands have to limit the number of things I do with family * Job prevents me from attending appointments and special events for family
Strain-Based Work-Family Conflict Definition (Greenhaus & Beutell, 1985)	Measures Used in Current Study	Strain-based Work-Family Conflict Measures Used in Other Studies
experiences of strain as a result of difficulty in complying with the role obligations in one domain as a result of experiencing strain in another domain	* frequency of not having energy to do things with family because of one's job * frequency that work keeps from doing a good job at home * frequency of not being in a good mood at home because of one's job	* After work I have little energy left for things I need to do at home * I do not listen to what people at home are saying because I am thinking about work * My job puts me in a bad mood at home * Demands at job make it hard to enjoy time with family * I think about work when I am at home

Independent variables.

Job demands.

Job demands were defined as increased effort and increased utilization of energy and resources to accomplish job responsibilities (Mauno et al., 2006). This study assessed job demands using five independent measures: 1) number of hours worked, 2) scheduling of work time, 3) workload pressure, 4) work role ambiguity, and 5) learning requirements at work.

Number of hours worked.

Number of hours worked was measured using a continuous variable of the total number of hours worked at all of the employee's jobs. A summation score of the following three questions was used to create this measure: (a) number of hours employee is regularly scheduled to work at the main job, (b) number of additional paid/unpaid hours worked at the main job, and (c) number of hours worked at other jobs. Longer working hours have been associated with increased work-family conflict (Thompson & Protas, 2005), and hence, total hours worked at all jobs was used to measure this dimension of job demand.

Work schedule.

Work schedule refers to the days and the time of day employment starts and ends. In this study, work schedule was measured as a categorical variable using Presser's (2003) definition and conceptualization of work schedule. Presser categorizes work schedule as those that require: a) standard schedules, and b) nonstandard schedules. Standard schedules refer to a fixed daytime schedule from eight in the morning to four in the evening five days a week. Nonstandard schedules are those schedules that require

working: a) fixed evening schedules, b) fixed night schedules, c) rotating shifts where schedules alternated from days to evenings or nights, and d) irregular schedules where hours varied. The work schedule variable was developed from the NSCW (2002) question, “which of the following best describes your work schedule at main job?” Seven categories were provided: 1) regular daytime schedule, 2) regular evening schedule, 3) regular night shift, 4) rotating shift, 5) split shift, 6) flexible/variable schedule, and 7) Some other schedule. Using Presser’s (2003) definition, these six categories were combined into five primary categories: (a) regular daytime schedules, (b) regular evening shifts, (c) regular night shifts, (d) rotating shifts and split shift schedules; and e) flexible , variable, and some other schedules. Among native workers, frequency distribution of this newly created work schedule variable showed that there were insufficient cases in the third category to run the analyses. Thus, regular evening and regular night shifts were combined. In the end, work schedule was measured using four categories: 1) regular daytime schedules, 2) regular evening and night shifts, 3) rotating shifts and split shifts, and 4) flexible or variable schedules.

Workload pressure.

Workload pressure was defined as excessive physical or psychological utilization of an employee’s resources to perform a job (Ironson, 1992). In this dissertation, workload pressure was comprised of six items:

- 1) My job requires that I work very fast.
- 2) I never seem to have enough time to get everything done on my job.
- 3) How often have you been asked to do excessive amount of work?
- 4) How often you have felt overwhelmed by how much you had to do at work?

- 5) How often do you have to work on too many tasks in a typical work week?
- 6) How often are you interrupted within a typical work week?

For the first two questions, respondent were asked to agree or disagree using a 4-point Likert scale where 1 = strongly agree, 2 = somewhat agree, 3 = somewhat disagree, and 4 = strongly disagree. The remaining questions tapped the frequency with which workers experienced each item using a 5-point Likert scale: 1 = very often, 2 = often, 3 = sometimes, 4 = rarely, and 5 = never. To create a workload pressure scale, items with a 5-point scale were reduced to four response categories by combining the very often and often categories. All items were reverse coded so that higher numerical results indicated more job demands and pressure at work. All these items were summed together to make this scale.

Factor analysis for the variable indicated that these six questions loaded as one factor for immigrant workers. Factor loadings for each of the items included in this scale were between .61 to .41 (see Table 3.2). Forty-two percent of variance was explained by these variables, and an eigenvalue of 2.52 was reported. These items yielded an alpha reliability of .71. Among native workers, factor loadings for each of the items included in this scale were between .83 - .38 (see Table 3.2). Close to 47% of the variance was explained by these variables, and an eigenvalue of 2.84 was reported. Alpha reliability for this scale for the native workers was reported as $\alpha = .77$. Both alpha reliability scores were consistent with other studies that have used a similar measure (Swanberg, & Simmons, 2008).

The items used to create the workload pressure scale in this study were similar to the questions that were used as measures of psychological demands and workload

pressures (Swanberg, & Simmons, 2008; Voydanoff, 1988). As an example, using the 2002 NSCW to examine psychosocial working conditions associated with depressive symptoms among a general working population, Simmons and Swanberg reported an alpha reliability of $\alpha = 0.79$.

Work role ambiguity.

Work role ambiguity was defined as incongruence between the expected set of behaviors at work of the employer and the employee (Katz & Kahn, 1978). It was measured using a single survey item, “on the job I have to do things that go against my conscience.” A similar question was used by Voydanoff (1988) to assess work role conflict. While the concept that was used by Voyandoff (1988) is similar to what is being referred to in this dissertation research as work role ambiguity a different term was used so as to not to confuse this concept with work-family conflict. This categorical variable used a 4-point Likert scale: 1 = strongly agree, 2 = somewhat agree, 3 = somewhat disagree, and 4 = strongly disagree. Response categories “strongly agree” and “somewhat agree,” and “somewhat disagree” and “strongly disagree” were combined to create a dichotomous variable to examine the impact of presence or absence of work role ambiguity, as there were few cases in the first category among native workers to run the analyses. The former category was coded as 1, and the later as 0; 1 represented the presence of work role ambiguity and 0 represented an absence of work role ambiguity.

On the job learning requirements.

On the job learning requirements was defined as programs that are supported by the employer and are considered essential for the development of organizational human capital as it builds the knowledge necessary to enhance employee skill and

communication (Jones & Butler, 1980; Voydanoff, 2004). Informed by the work of Voydanoff (1988), five questions were used to measure learning requirements on the job:

- 1) The work I do is meaningful to me.
- 2) My job requires that I keep learning new things.
- 3) My job requires that I be creative.
- 4) My job lets me use my skills and abilities.
- 5) I have the opportunity to develop my own special abilities.

For the first four questions, respondents were asked to agree or disagree using a 4-point Likert scale where 1 = strongly agree, 2 = somewhat agree, 3 = somewhat disagree, and 4 = strongly disagree. The last item measured employees' opportunities to develop their own special abilities using a 4-point Likert scale: 1 = very true, 2 = somewhat true, 3 = a little true, and 4 = not at all true. All the items were reverse coded so that higher numerical results indicated more learning requirements. All these items were summed together to make the learning requirements scale.

Factor analysis for the variable indicated that for immigrant workers these five items supported a single construct of learning requirements on the job. Factor loadings for each of the items included in this scale were between .74 -.61 (see Table 3.2). Close to 45% of variance was explained by these variables, and an eigenvalue of 2.24 was reported. Alpha reliability of this measure was reported to be $\alpha = 0.68$. Similarly, factor analysis demonstrated that the five items captured a single construct of learning requirements for native workers as well. Among native workers, factor loadings for each of the items included in this scale were between .77 to .69 (see Table 3.2). Close to 52% of the variance was explained by these variables, and an eigenvalue of 2.60 was reported.

Alpha reliability of this measure for native workers was reported to be $\alpha = 0.76$. Alpha reliability scores in this study were similar to those in other studies using similar measures (Voydanoff, 1988). Voydanoff's (1988) study reported an alpha reliability score of .82.

Social support at work.

Social support at work allows individuals to manage various role obligations by providing solutions in order to carry out role responsibilities at work (Kyoung-Ok, Wilson, & Myung, 2004). In this study only two specific dimensions of social support at work were assessed: supervisor social support and co-worker social support (Goff et al., 1990; Greenhaus & Parasuraman, 1986; Greenhaus et al., 1987; Lim, 1997; Stephens & Sommer, 1995; Wadsworth & Owens, 2007).

Social support from supervisors.

Social support from supervisors, as it relates to meeting work role obligations and thus managing work-family conflict, is described as the assistance employees receive from supervisors to manage work and family role obligations (Anderson et al., 2002; Thompson & Prottas, 2005). The availability of social support from supervisors and co-workers is likely to reduce perceived job demands, as employees are more likely to meet the work role and family role expectations with the social support received.

Supervisor support was measured in this study using nine items that measure informational, emotional, instrumental, and appraisal support from supervisors. The social support measure used in this study is very similar to one used by Thompson and Prottas (2005) and Nelson and Quick (1991). The nine items include:

- 1) My supervisor keeps me informed of things I need to do the job well.

- 2) My supervisor has realistic expectations of my job performance.
- 3) My supervisor recognizes when I do a good job.
- 4) My supervisor is supportive when I have a work problem.
- 5) My supervisor is fair when responding to employee family/personal needs.
- 6) My supervisor accommodates me when I have family/personal business.
- 7) My supervisor is understanding when I talk about personal/family issues.
- 8) I feel comfortable bringing up personal/family issues with my supervisor.
- 9) My supervisor cares about effects of work on personal/family life.

Each of these questions uses a 4-point Likert scale that asks respondents to rate whether they agree or disagree with the statement. The response categories were: 1 = strongly agree, 2 = somewhat agree, 3 = somewhat disagree, and 4 = strongly disagree. Items were reverse coded so that higher values represented higher support. Factor analysis for this variable indicated that all nine items grouped together as one factor among immigrant workers; factor loadings for each of the items included in this scale were between .61 to .84 (see Table 3.2). Close to 52% of variance was explained by these variables, and an eigenvalue of 4.69 was reported. For the analyses, the items were summed together to make the supervisor social support scale. Alpha reliability for this measure was calculated at $\alpha = 0.88$ for immigrant workers.

Similar to the analysis for immigrant workers, factor analysis indicated that these items measure one construct among native workers; factor loadings for each of the items included in this scale were between .68 to .85 (see Table 3.2). Close to 56% of the variance was explained by these variables, and an eigenvalue of 5.05 was reported. Alpha

reliability for this measure was calculated at $\alpha = 0.90$. Thompson and Prottas' (2005) study yielded a similar alpha reliability for this measure at $\alpha = 0.91$.

Co-worker social support.

Co-worker social support, as it relates to managing work role demands, was defined as the support received from colleagues to manage work and family role obligations (Wadsworth & Owens, 2007). In this study, co-worker support was measured using the following three items:

- 1) I feel part of the group of people I work with.
- 2) I have the co-worker support I need to do a good job.
- 3) I have the co-worker support I need to manage my work-family life.

These items were measured on a 4-point Likert scale; the response categories were: 1 = strongly agree, 2 = somewhat agree, 3 = somewhat disagree, and 4 = strongly disagree. In order to represent higher levels of co-worker support with higher values, these items were reverse coded and summed to make this construct. Alpha reliability for this scale for immigrant and native sample was calculated at $\alpha = .73$ and $\alpha = .79$, respectively. This score was consistent with other studies that have used a similar measure (Thompson & Prottas, 2005). A measure with similar items used by Thompson and Prottas (2005) reported an alpha reliability of $\alpha = 0.74$. These very same questions were also used by Families and Work Institute to measure co-worker support among the entire wage and salaried sample. Their analyses reported an alpha reliability of $\alpha = 0.73$ (Bond et al., 2003; unpublished data, NSCW, 2002).

Socio-demographic variables.

Eight demographic variables were included as control variables: gender, age, income, education, marital status, parental status, and length of stay in the United States. *Gender* was a categorical variable where 1 = male and 2 = female. *Age* and *income* were measured using continuous variables. Respondents' age was measured in years and income was measured using respondents' estimated total earnings for 2002. *Education* was measured using a categorical variable with three response categories: 1 = high school/GED/Less than high school, 2 = some post secondary education, 3 = 4-year college degree or higher. This variable was created using a single item measure, "highest level of schooling completed," which was measured in nine response categories. These response categories were collapsed into three response categories previously described. *Marital status* was measured using a question that asked respondent to report their marital status. Respondents were provided with six categories: 1) married for the first time, 2) remarried 3) living with someone as a couple, 4) single never married, 5) divorced, and 6) separated. For this study, these response categories were collapsed into two categories: legally married/living together as a couple, and single/divorced or separated. Respondents, who reported being married, remarried, or living with someone, were coded as married/living together. Respondents who reported to be single, divorced, or separated were coded as single. *Parental status* was determined using a single item measure that asked respondents to report the "number of children <18 years living with you." The variable was recoded into a new variable "*parental status*" where a value of 0 was assigned to those workers without children less than 18, and a value of 1 was assigned to workers that reported having one or more children less than 18. Length of

stay in United States was measured as a continuous variable using the question that asked the respondents to report the “number of years in the U.S.”

Data Analysis

Statistical analysis was conducted using the combined dataset of immigrant and native workers ($N = 322$), as well as separate analyses with samples of immigrant workers ($n = 157$) and native workers ($n = 165$). Preliminary analyses of the data was done to assess assumptions of independent sample t-test and cross-tabulation procedures. This guided data preparation for the analyses by ensuring that no violations of necessary assumptions were made. Homogeneity of variance tests, which examined equality of variance among immigrant and native workers indicated that the workers in both the samples had equal variance; the Levene’s test for equality of variance in all these tests was greater than .05 ($p > .05$).

Univariate and bivariate analysis including frequencies, independent samples t-test, and cross-tabs were conducted to describe native and immigrant sample and to determine group differences among immigrant and native workers with respect to demographic, independent, and dependent variables. An alpha level of .05 was used to determine the statistical significance of chi-square, t-test, and stepwise multiple regression analysis via backward elimination to identify the best fitting model. Backward elimination helps to build a model by “eliminating variables that are superfluous in order to tighten up future research” (Tabachnick & Fidell, 2001, p. 138) and determine the specific independent variables that contribute significantly towards the prediction of dependent variables. Briefly, in backward elimination in the first step all the predictors are entered into the equation. Next, in order to determine the level of contribution to

overall prediction, a significance test (a partial F -test) is performed for all the predictors. A comparison is made between preselected significance value (F) that is set as a cutoff point below which all the predictors are to be eliminated from the equation, with the smallest partial F . If the smallest partial F is smaller than the cutoff value of F that has been selected, that predictor is removed from the analysis and the new equation is calculated with remaining variables using the procedure described above. This process is continued until the deletion of a predictor variable fails to generate significant reduction in R^2 (Stevens, 2001).

Independent samples t-test and cross-tabs were done to answer the first research question. To examine the relationship between independent variables and dependent variables and answer the second and third research question Pearson zero-order correlations were carried out. Stepwise multiple regressions were used to answer the fourth research question. As this study is exploratory in nature and the purpose of this research is to determine which predictors make meaningful and significant contribution to the dependent variables stepwise multiple regression via backward elimination was used (Aron & Aron, 1999). Separate multiple regression analyses were done for the immigrant workers sample and native workers sample. All the socio-demographic variables, social support variables, and job demand variables were entered in the model simultaneously.

To carry out the above-mentioned statistical analyses, SPSS version 17.0 computer software (2009) was used, and statistical findings significant at .05 levels were reported. Table 3.4 provides descriptive statistics for each of the independent and dependent study variables. This table provides a quick reference for basic information

regarding each variable. For descriptive information about demographic characteristics of workers, see Table 3.1 earlier in this chapter. Table 3.4 provides descriptive statistics for independent and dependent variables in this study and table 3.5 provides a correlation table between job demand, social support and work-family conflict variables.

Table 3.4

Descriptive Statistics for Independent and Dependent Variables

Job Demands	Total Sample (N=322)				Immigrant Workers (n=157)				Native Workers (n=165)			
	N		%		n		%		n		%	
<u>Work schedule</u>												
Reg. day time schedule	252		78		115		73		137		83	
Reg. eve. or night shift	24		8		16		10		8		5	
Rotating or split shift	22		7		15		10		7		4	
Flexible/variable, no set hrs/ on call , some other schedule	24		8		11		7		13		8	
<u>Work role ambiguity (N=320)</u>												
Strongly or somewhat agree	274		85		131		83		143		87	
Somewhat or strongly disagree	46		14		26		17		20		12	
	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
<u>Number of hours worked</u>	42.67	12.36	9	84	43.58	12.49	9	80	41.81	12.20	3	84
<u>Workload pressure</u>	16.98	4.12	6	24	16.93	4.08	6	24	17.04	4.17	6	24
<u>Learning requirements</u>	16.92	2.86	5	20	17.28	2.16	7	20	16.58	3.04	5	20
<u>Social support at work</u>												
Supervisor social support	29.94	5.53	11	36	29.94	5.31	13	36	29.93	5.75	11	36
Co-worker social support	10.35	1.86	3	12	10.39	1.75	4	12	10.32	1.97	3	12
<u>Work-family conflict</u>												
Time-based Work-family-conflict	10.03	3.08	4	19	10.17	3.08	4	17	9.89	3.08	4	19
Strain-based Work-family- conflict	7.73	2.94	3	15	7.62	2.91	3	15	7.83	2.98	3	15

Table 3.5

Correlations between Social Support (SS), Job Demands (JD) and Time-Based (TB) And Strain-Based (SB) Work-Family Conflict Variables for Immigrant and Native Workers

	Supervisor SS	Co-worker SS	Workload pressure	Total hours worked	Learning req.	Regular day time schedule	Flex/variable/ no set hours	Rotating/ split shift	Regular eve/ night shift	Work role ambiguity	TB work-family conflict	SB work-family conflict
Supervisor SS	1	.643***	-.200*	-.078	.374**	.066	.017	-.037	-.074	-.170*	-.296**	-.420***
Co-worker SS	.549***	1	-.166*	-.133	.320***	-.085	.115	-.011	.037	-.139	-.311***	-.335***
Workload pressure	-.270***	-.198*	1	.135	-.103	.078	.029	-.032	-.108	.113	.352***	.432***
Total hours worked	.073	.056	.270***	1	.087	.007	-.126	.164*	-.063	-.003	.246**	.213**
Learning req.	.488***	.439***	.045	.284***	1	.072	.027	.073	-.199*	-.181*	-.129	-.319**
Regular day time sch.	.067	.113	.092	.185*	.182*	1	-.454**	-.538**	-.557**	.153	.007	-.072
Flex/variable/no set hours	.038	-.024	.024	-.100	.011	-.600***	1	-.089	-.092	-.122	-.036	-.050
Rotating/ split shift	-.202**	-.080	-.075	-.071	-.219**	-.476***	-.062	1	-.109	-.028	-.037	.042
Regular eve/night shift	.047	-.065	-.145	-.201*	-.109	-.510***	-.066	-.048	1	-.093	.056	.107
Work role ambiguity	-.170*	-.161*	.054	.030	.024	.016	-.041	.013	.002	1	.032	.123
TB work-family conflict	-.250**	-.193*	.406***	.226**	-.166*	-.131	.018	.168*	.020	.062	1	.715***
SB work-family conflict	-.343***	-.255**	.430***	.136	-.258**	-.129	.099	.244**	-.016	-.085	.721***	1

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note: Correlations above the diagonal are for immigrant workers; below the diagonal for native workers

Protection of Human Subjects

As stated above, this study was conducted using a secondary data set. There was no personal identification information about the respondents in this data set; therefore, there was no risk to the people who participated in the original study. This study qualified as an exempt study as it involved the usage of existing data and meets the federal regulation 45 CFR 46.101(b) for the protection of human subjects. Approval from the University of Kentucky Institutional Review Board (IRB) was received in June 2010 (Protocol number: 10-0428-X4b).

Chapter Four: Results

This chapter presents the results of the four primary research questions guiding this study.

Research Question 1

Are there differences between immigrant and native workers experiences of job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support at work (supervisor and co-worker), and work-family conflict (time-based and strain-based)?

As noted in the Chapter 3, a series of cross tabulation and t-test procedures were conducted to examine the differences between immigrant and native workers' experiences of the five job demands: hours worked, work schedule, workload pressure, work-role ambiguity, and learning requirements. The results are presented below.

Hours worked.

There were no significant group differences in the total number of hours worked for immigrant ($M = 43.58$, $SD = 12.49$) and native workers ($M = 41.81$, $SD = 12.21$; $t(320) = 1.29$, $p = .20$). Table 4.1 provides an overview of the group differences between immigrant and native workers in terms of the total number of hours worked.

Table 4.1

Group Differences in Total Number of Hours Worked

	Immigrant Workers ($n = 157$)	Native Workers ($n = 165$)	t	95% CI (for the mean)
	Mean (SD)	Mean (SD)		
Hours worked	43.58 (12.49)	41.81 (12.21)	1.29	[-.932, 4.48]

Work schedule.

As evidenced in Table 4.2, there were significant group differences between immigrant and native workers in terms of type of schedule they were scheduled to work ($\chi^2 (3, N = 322) = 7.47, p = .05$). Seventy three percent of the immigrant sample reported that they worked a regular daytime schedule; whereas 83% of native employees reported that they worked a regular daytime schedule. Ten percent of immigrant workers, compared to 5% of native workers, reported working an evening or night shift schedule. Similarly, 10% of immigrant employees reported working a rotating shift as compared to 4% of native employees. These findings indicate that there was a significant difference between immigrant and native workers work schedule, native workers were more likely to work at day schedules as compared to immigrant workers and immigrant workers were more likely to report working an evening, night, rotating, or split shifts than native workers.

Table 4.2

Group Differences in Work Schedule

	Immigrant Workers (<i>n</i> = 157)	Native Workers* (<i>n</i> = 165)
Work Schedule		
Reg. daytime schedule	73%	83%
Reg. evening/night shift	10%	5%
Rotating or split shift	10%	4%
Flexible/variable	7%	8%

* $\chi^2 (3, N = 322) = 7.47, p. \leq .05$

Workload pressure.

Independent sample t-test analyses were conducted to examine the differences between immigrant and native workers' experiences of workload pressure. Workload pressure was measured using a single variable which consisted of items that assessed

frequency with which respondents were required to do too many tasks in a typical work week, do excessive work, experienced interruptions, work fast, felt overwhelmed, or did not have enough time to do all of their work. Results (Table 4.3) indicated that there were no significant group differences between immigrant ($M = 16.93$, $SD = 4.08$) and native workers' ($M = 17.05$, $SD = 4.17$; $t(320) = -.26$, $p = .80$) perceived workload pressures.

Table 4.3
Group Differences in Workload Pressure

	Immigrant Workers ($n = 157$)	Native Workers ($n = 165$)	t	95% CI (for the mean)
	Mean (SD)	Mean (SD)		
Workload Pressure	16.93 (4.08)	17.05 (4.17)	-.259	[-1.02, .79]

Work-role ambiguity.

There were no significant group differences (see Table 4.4) between immigrant and native workers' experiences of work-role ambiguity ($\chi^2(3, N = 320) = 1.40$, $p = .706$). Sixty-eight percent of the immigrant workers strongly agreed that they did not have to do things against their conscious as compared to 73% of native workers. Said another way, only 17% of immigrant workers strongly to somewhat agreed that they had to work against their conscious as compared to 12% of native workers.

Table 4.4
Group Differences in Perceived Work-Role Ambiguity

	Immigrant Workers ($n = 157$)	Native Workers ($n = 163$)
Work-role Ambiguity		
Strongly/somewhat agree	17%	12%
Strongly/somewhat disagree	83%	88%

* $\chi^2(1, N = 320) = 1.40$ $p > .05$

Learning requirements.

Table 4.5 provides an overview of the group differences between immigrant and native workers in terms of learning requirements on the job. Results from t-test analyses indicated that there was a significant group difference among immigrant and native workers ($t(320) = 2.22, p = .03$) in terms of the frequency with which respondents were required to learn on the job. Immigrant workers experience more learning requirements on the job ($M = 17.29, SD = 2.61$) than do native workers ($M = 16.58, SD = 3.04$).

Table 4.5

Group Differences in Learning Requirements

	Immigrant Workers ($n = 157$)	Native Workers* ($n = 165$)	t	95% CI (for the mean)
	Mean (SD)	Mean (SD)		
Learning Requirements	17.29 (2.61)	16.58 (3.04)	2.22	[.083 , 1.33]

* $p \leq .05$

Supervisor and co-worker social support.

Next, I examined whether there were any differences between immigrant and native workers' experiences of social support at work from their supervisors or co-workers. As evidenced in Table 4.6, findings from t-test procedures indicated that there was no significant group difference in supervisor social support scores for immigrant ($M = 29.94, SD = 5.31$) and native workers [$M = 29.93, SD = 5.75; t(320) = .016, p = .99$]. T-test results for co-worker social support showed that there was no significant group difference in the mean scores for immigrant ($M = 10.39, SD = 1.75$) and native workers [$M = 10.32, SD = 1.97; t(320) = .355, p = .723$]. The analysis for this research question indicated that there were no statistically significant differences in perceived supervisor

social support and perceived co-worker social support between immigrant and native workers in this sample.

Table 4.6

Group Differences in Supervisor and Co-worker Social Support

	Immigrant Workers (<i>n</i> = 157)	Native Workers (<i>n</i> = 165)	<i>t</i>	95% CI (for the mean)	
	Mean (SD)	Mean (SD)			
Supervisor social support	29.94 (5.32)	29.93 (5.74)	.016	-1.21	-1.22
Co-worker social support	10.39 (1.75)	10.32 (1.97)	.355	-.33	.48

Time-based work-family conflict.

Table 4.7 provides an overview of the group differences between immigrant and native workers' reported experiences of time-based work-family conflict. Independent sample t-test analyses indicated that there was no significant group difference between immigrant ($M = 10.17$, $SD = 3.08$) and native workers [$M = 9.89$, $SD = 3.07$; $t(320) = .800$, $p = .42$], indicating the hypothesis were not supported.

Table 4.7

Group Differences in Time-Based Work-family Conflict

	Immigrant Workers (<i>n</i> = 157)	Native Workers (<i>n</i> = 165)	<i>t</i>	95% CI (for the mean)	
	Mean (SD)	Mean (SD)			
Time-Based Work-Family Conflict	10.17 (3.08)	9.89 (3.07)	.800	-.401	.949

Strain-based work-family conflict.

As noted in Table 4.8, there were no statistically significant group differences experienced between immigrant workers' ($M = 7.62$, $SD = 2.91$) reported strain-based

work-family conflict and native workers' ($M = 7.83$, $SD = 2.98$) reported strain-based conflict ($t(320) = .65$, $p = .52$), indicating the proposed hypothesis was not supported.

Table 4.8

Group Differences in Strain-based Work-family Conflict

	Immigrant Workers ($n = 157$)	Native Workers ($n = 165$)	t	95% CI (for the mean)	
	Mean (SD)	Mean (SD)			
Strain-based work-family conflict	7.62 (2.91)	7.83 (2.98)	-.647	-.858	.433

Results for the first research question indicate that of the five job demands examined only work schedule and learning requirements were experienced significantly different among the immigrant and native workers. There were significant group differences reported between immigrant and native workers' work schedules. A higher proportion of immigrant workers were more likely to work nonstandard schedules than native workers. Similarly, immigrant workers reported a higher mean score for learning requirements on the job indicating that they perceive higher levels of expectation for learning. There were no group differences between the two groups' experiences of supervisor social support and co-worker social support. Similarly, there was no significant group difference between the immigrant workers' and native workers' experience of time-based and strain-based work-family conflict.

Research Question 2

Is there a relationship between time-based work-family conflict and job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic characteristics (age, gender, marital status, parental status, income,

and education) among immigrant (among immigrant workers also included length of stay in the United States) and native workers in the U.S.?

To answer research question two Pearson zero-order correlations were examined between the five job demand variables, the two social support variables, socio-demographic characteristics and time-based work-family conflict measure. Results indicate that (see table 4.9) four variables were significantly related to time based work-family conflict among immigrant workers. Two of the job demands namely workload pressure [$r(157) = .352, p \leq .001$] and total hours worked [$r(157) = .246, p \leq .01$] were positively associated with time based work-family conflict among immigrant workers. Supervisor social support [$r(157) = -.296, p \leq .001$] and co-worker social support [$r(157) = -.311, p \leq .001$] were negatively correlated with time-based work-family conflict among this worker population indicating that with increased social support at work the experiences of time-based work-family conflict are reduced. One of the socio-demographic characteristic - income [$r(157) = .223, p \leq .001$] was positively associated with time-based work-family conflict.

Among native workers correlations between socio-demographic, job demands, social support variables and time-based work-family conflict indicated that seven of these variables were significantly associated with time-based work-family conflict. Three job demand variables namely, workload pressure [$r(165) = .406, p \leq .001$], total hours worked [$r(165) = .226, p \leq .01$], and working rotating /split shift [$r(165) = .168, p \leq .01$] were positively associated with time-based work-family conflict that is as these job demands increased the experiences of time-based work family conflict also increased. Learning requirements [$r(165) = -.166, p \leq .01$] was negatively associated with time-based work-

family conflict, that is as learning requirements increased, decreased incidence of time-based work-family conflict was experienced. Co-worker social support [$r(165) = -.193, p \leq .05$] and supervisor social support [$r(165) = -.250, p \leq .01$] was negatively associated with time-based work-family conflict indicating that increased social support at work from supervisor and co-workers lead to decreased time-based work-family conflict among native workers. Among socio-demographic variables only age was significantly associated with time-based work-family conflict [$r(165) = -.157, p \leq .05$], and there was a negative relationship between age and time-based work-family conflict that is as age increased time-based work-family conflict was experienced less.

Research Question 3

Is there a relationship between strain-based work-family conflict and job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic characteristics (age, gender, marital status, parental status, income, education, and length of stay in the United States) among immigrant (among immigrant workers also included length of stay in the United States) and native workers in the U.S.?

Examination of the correlations between socio-demographic, job demands, social support and strain based work-family conflict among immigrant workers indicated that six variables were significantly associated with the strain-based work-family conflict. Among job demand variables workload pressure [$r(157) = .432, p \leq .001$] and total hours worked [$r(157) = .213, p \leq .01$] were positively associated with strain-based work-family conflict. Learning requirements [$r(157) = -.319, p \leq .001$] was negatively associated with

strain-based work-family conflict. Negative association between learning requirements and strain-based work-family conflict indicates that as learning requirements increase the incidence of strain-based work-family conflict decreases. Supervisor social support [$r(157) = -.420, p \leq .001$] and co-worker social support [$r(157) = -.335, p \leq .001$] was negatively associated with strain-based work-family conflict among this worker population, indicating that increased social support at work from co-workers and supervisors results in decreased experiences of strain-based work-family conflict. One of the socio-demographic characteristic, income [$r(157) = .178, p \leq .001$] was positively associated with strain-based work-family conflict indicating that as income increased experiences of strain-based conflict also increased.

Examination of the correlations between strain based work-family conflict and socio-demographic, job demands, social support variables among native workers indicated that six variables were significantly associated with the dependent variable. Among job demand variables workload pressure [$r(165) = .430, p \leq .001$] and working rotating /split shift [$r(165) = .244, p \leq .01$] were positively associated with strain-based work-family conflict and learning requirements [$r(165) = -.258, p \leq .001$] was negatively associated with strain-based work-family conflict. Supervisor social support [$r(165) = -.343, p \leq .001$] and co-worker social support [$r(165) = -.255, p \leq .001$] were negatively associated with strain-based work-family conflict among this worker population, indicating that as social support from supervisor and co-workers increased at work decreased incidence of strain based work-family conflict was experienced. One of the socio-demographic characteristic, age [$r(165) = -.223, p \leq .01$], was negatively associated with strain-based work-family conflict among native workers.

In summary, among immigrant workers two of the job demands workload pressure and total hours worked were positively, significantly correlated with time-based and strain-based work-family conflict. Learning requirements was negatively correlated with strain-based work-family conflict among immigrant workers. Both the types of social support that is supervisor social support and co-worker social support were negatively associated with time-based and strain-based work-family conflict among immigrant workers. Among socio-demographic variables only income was significantly correlated with time-based and strain-based work-family conflict among immigrant workers.

Among native workers workload pressure, total hours worked, and working rotating and split shift was positively correlated with time-based work-family conflict. Positive correlations between these job demands and work-family conflict indicate that as these job demands increased, higher time-based work-family conflict was experienced. Learning requirements, supervisor social support and co-worker social support were negatively correlated with time-based work-family conflict. Among socio-demographic variables only age was negatively correlated with time-based work-family conflict. A negative relationship between these variables indicated that as age, learning requirements, and social support from co-workers and supervisors among native employees increased time-based work-family conflict experienced decreased and vice versa.

Similarly, workload pressure and working rotating and split shift were positively correlated with strain-based work-family conflict among native workers. Positive correlations between these job demands and work-family conflict indicate that as these job demands increased work-family conflict experienced also increased. Learning

requirements, supervisor social support and co-worker social support were negatively correlated with strain-based work-family conflict. Among socio-demographic variables only age was negatively correlated with strain-based work-family conflict. A negative relationship between these variables indicates that as age, learning requirements and social support among these employees increased the experiences of strain-based work-family conflict decreased and vice versa.

Table 4.9

Correlations between Job Demands, Social Support, Socio-Demographics and Time-Based And Strain-Based Work-Family Conflict Variables for Immigrant and Native Workers

	IMMIGRANT WORKERS				NATIVE WORKERS			
	Mean / %	SD	Time-based conflict	Strain-based conflict	Mean/ %	SD	Time-based conflict	Strain-based conflict
Job Demands								
Workload pressure	16.93	4.08	.352***	.432***	17.04	4.17	.406***	.430**
Total hours worked	43.58	12.49	.246**	.213**	41.81	12.20	.226**	.136
Learning requirements	17.28	2.16	-.129	-.319**	16.58	3.04	-.166*	-.258**
Work schedule								
Regular day time schedule	73		.007	-.072	83		-.131	-.129
Regular evening / night shift	10		-.036	-.050	5		.018	.009
Rotating / split shift	10		-.037	.042	4		.168*	.244**
Flexible/ variable/ no set hours	7		.056	.107	8		.020	-.016
Work role ambiguity agree	83		.032	.123	87		.062	-.085
Work role ambiguity disagree	17				12			
Social support								
Supervisor social support	29.94	5.31	-.296***	-.420***	29.93	5.75	-.250**	-.343
Co-worker social support	10.39	1.75	-.311***	-.335**	10.32	1.97	-.193*	-.255**
Socio-demographic characteristics								
Age	39.17	12.14	-.005	-.157	42.83	12.20	.157*	-.223**
Marital Status/Married living together	59		.130	.083	64		-.036	-.012
Parental Status/ child<18 (yes)	47		.143	.082	36		.118	.110
Income	38,34	27,75	.223**	.178*	47,667	80,737	-.100	-.032
Gender/ Male	47		.073	.026	37		-.078	-.111
Education								
HS/GED/< HS	30		.107	.094	27		.027	-.025
Some post sec	27		.009	-.028	41		-.013	.042
Four yr degree	43		-.113	-.060	33		-.017	-.017
Immigrant wrkrs. no. of yrs in U.S.			.054	-.010	19.05	13.44	-	-
Time-based work-family conflict	10.17	3.08	-	.715***	9.89	3.08	-	.721***
Strain-based work-family conflict	7.62	2.91	.715***	-	7.83	2.98	.721***	-

*p<.05, ** p<.01, *** p<.001 (sig 2-sided).

Research Question 4

Which of the job demands (hours worked, work schedule, workload pressure, work role conflict, and learning requirements), social support (supervisor and co-worker), and socio-demographic (age, gender, marital status, parental status, income, education and number of years in the United States) variables are associated with time-based and strain based work family conflict among immigrant and native workers in the U.S.?

Stepwise multiple regression analysis via backward elimination was used to create a trimmed model that determined the specific independent variables that contributed significantly towards the prediction of dependent variables. All the five job demand variables, the two social support variables, and the seven⁴ socio-demographic variables were entered together to determine the most parsimonious model with the highest variance explained. Separate regression analyses were run for immigrant workers and native workers. In total, four models were developed to examine the two types of work-family conflict, namely time-based work-family conflict and strain-based work-family conflict among the two worker population.

Time-based work-family conflict among immigrant and native workers.

Table 4.10 provides a summary of findings for the relationships between job demands, social support, socio-demographics, and time-based work-family conflict among immigrant and native workers in the United States. Among immigrant workers, the final model with job demands social support, and socio-demographic variables

⁴ Socio-demographic variables for immigrant workers included age, gender, income, education, marital status, parental status, and years in United States and for native workers it included age, gender, income, education, marital status, and parental status variable.

predicting time-based work-family conflict retained four variables: marital status, co-worker social support, workload pressure, and total hours worked. The final model explained 24% of the variability in time-based work-family conflict among immigrant workers, $R^2 = .24$, $R^2 \text{ adj} = .22$, [$F = (4,150) = 11.54$, $p < .001$].

The coefficients table indicated that among socio-demographic characteristics marital status was approaching significance ($\beta = .13$, $p = .08$) in predicting time-based work-family among immigrant workers and the positive beta value indicated that immigrant workers who were married/remarried/ or living together were more likely to have time-based work-family conflict as compared to the employees who were single/divorced/ or separated. Employees who are married or are living with a partner are likely to experience a .55 increase in time-based work-family conflict as compared to employees who are single, separated or divorced. Workload pressure ($\beta = .30$, $p \leq .001$) and total hours worked ($\beta = .17$, $p \leq .05$) significantly predicted time-based work-family conflict among immigrant workers. A positive association between job demands (workload pressure and total hours worked) and time-based work-family conflict indicated that as these job demand increased time-based work-family conflict also increased. The unstandardized coefficient for workload pressure is 0.16, so holding all other variables constant, for every unit increase in workload pressure a 0.16 unit increase in time-based work-family conflict is predicted. For an increase in every work hours a 0.30 unit increase in time-based work-family conflict is expected. Negative association between co-worker social support ($\beta = -.23$, $p \leq .01$) and time-based work-family conflict indicated that as co-worker social support increased time-based work-family conflict decreased. Controlling for all the other variables constant, for every unit increase in co-

worker social support a 0.29 unit decrease in time-based work-family conflict is predicted. These results also indicate that the strongest predictor of time-based work-family conflict among immigrant workers is workload pressure and social support from co-workers helps to reduce it.

Among native workers, the final model with job demands, social support, and socio-demographic variables predicting time-based work-family conflict retained seven variables: parental status, income, working rotating and split shift, having a work schedule with flexible, variable, and no set hours, workload pressure, learning requirements, and total hours worked. The final model explained 31% of the variability in time-based work-family conflict among immigrant workers, $R^2 = .31$, $R^2 \text{ adj} = .28$, [$F = (7,155) = 9.92$, $p \leq .001$].

The coefficients table indicated that among socio-demographic characteristics parental status significantly contributed to ($\beta = .15$, $p = .03$) predicting time-based work-family conflict among native workers and the positive beta value indicated that native workers who bear parental responsibility were more likely to experience time-based work-family conflict as compared to workers who do not have parental responsibilities. Holding all the other variables constant, for every unit increase in having childcare responsibilities a 0.15 unit increase in time-based work-family conflict is predicted. Income was negatively associated with time-based work-family conflict among native workers indicating that as income increased reduced time-based work-family conflict was experienced; with every unit increase in income a -1.24 unit decrease in the experience of time-based work-family conflict is expected. Employees who worked a rotating and split shift ($\beta = .16$, $p \leq .01$) were more likely to experience time-based work-family conflict as

compared to employees who worked regular day time shift and with every unit increase in working rotating and split shift a 1.69 unit increase in the experience of time-based work-family conflict is expected. Workload pressure ($\beta = .37, p \leq .001$), total hours worked ($\beta = .27, p \leq .01$), and learning requirements ($\beta = -.20, p \leq .01$) were significantly associate with time-based work-family conflict among native workers. A positive association between workload pressure and total hours worked and time-based work-family conflict indicated that as these job demand increased time-based work-family conflict also increased. The unstandardized coefficient for workload pressure is .19 and for total hours worked is .05 so holding all other variables constant, for every unit increase in workload pressure a 0.19 unit increase in time-based work-family conflict is predicted among native workers and for every unit increase in total hours worked a .05 unit increase in time-based work-family conflict is expected. Negative association between learning requirements and time-based work-family conflict indicated that as workers learning requirements increased their experiences of time-based work-family conflict decreased, and with every unit increase in learning requirement a -.14 unit decrease in time-based work-family conflict is predicted. The results discussed above also indicate that the strongest predictor of time-based work-family conflict among native workers is workload pressure. Learning requirements helps to reduce the experience of time-based work-family conflict among native workers the most.

Table 4.10

Time-based Work-family Conflict among Immigrant and Native Workers (variables in the final model)

Predictors	Immigrant Workers		Native Workers	
	B	β	B	β
Marital Status (married/remarried/living together)	.55	.13		
Parental status(any child \leq 18)			.65	.15*
Income			-1.24	-.16*
Co-worker social support				
Rotating /split shift (dummy 2) (Ref Category = regular day time sch.)	-.29	-.23**	1.69	.16*
Flex/var/ no set hrs (dummy 1) (Ref Category = regular day time sch.)			1.15	.12
Work load pressure			.19	.37***
Total hours worked	.16	.30***	.05	.27**
Learning requirements	.30	.17*	-.14	-.20**
F			11.54***	9.93***
n			154	162
R ²			.24	.31

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Strain-based work-family conflict among immigrant and native workers.

Stepwise multiple regression analysis via backward elimination using the same logic as previously stated was repeated to determine the predictors of strain-based work-family conflict among immigrant and native workers in the United States. Table 4.11 provides a summary of findings for the relationship between job demands, social support, socio-demographics, and strain-based work-family conflict among immigrant and native workers in the United States. The final model with job demands, social support, and socio-demographics variables predicting strain-based work-family conflict among immigrant workers retained five variables: marital status, supervisor social support, workload pressure, learning requirements, and total hours worked. The final model

explained 37% of the variability in strain-based work-family conflict among immigrant workers, $R^2 = .37$, $R^2 \text{ adj} = .35$, [$F = (5,149) = 17.69$, $p \leq .001$].

The coefficients table indicated that among socio-demographic characteristics marital status significantly ($\beta = .14$, $p = .04$) predicted strain-based work-family among immigrant workers and the positive beta value indicated that immigrant workers who were married/remarried/ or living together were more likely to have strain-based work-family conflict as compared to single/divorced/ or separated immigrant workers. For every unit increase in marital status a 0.81 unit increase in strain-based work-family conflict is predicted holding all other variables constant. Workload pressure ($\beta = .34$, $p \leq .001$) and total hours worked ($\beta = .16$, $p \leq .05$) significantly predicted strain-based work-family conflict among immigrant workers. A positive association between job demands (workload pressure and total hours worked) and strain-based work-family conflict indicated that as these job demands increased strain-based work-family conflict was also experienced more. The unstandardized coefficient for workload pressure is 0.24, so holding all other variables constant, for every unit increase in workload pressure a 0.24 unit increase in strain-based work-family conflict is predicted. For every unit increase in total hours worked, holding all other variables constant a 0.04 unit increase in strain-based work-family conflict is expected. Learning requirements ($\beta = -.24$, $p \leq .05$) and supervisor social support ($\beta = -.25$, $p \leq .01$) were negatively associated with strain-based work-family conflict. Negative association between learning requirements, supervisor social support and strain-based work-family conflict indicated that as learning requirements and supervisor social support increased, strain-based work-family conflict decreased. A unit increase in supervisor social support lead to -.13 unit decrease in strain-

based work-family conflict and a unit increase in learning requirements lead to -.27 decrease in strain-based work-family conflict among immigrant workers holding all the other variables constant. The results indicate that workload pressure is the strongest predictor of strain-based work-family conflict among immigrant workers.

Among native workers, the final model with job demands, social support at work, and socio-demographic variables predicting strain-based work-family conflict retained eight variables: age, parental status, supervisor social support, working rotating and split shift, workload pressure, learning requirements, work-role ambiguity, and total hours worked. The final model explained 39% of the variability in strain-based work-family conflict among native workers, $R^2 = .39$, $R^2 \text{ adj} = .35$, [$F = (8,154) = 12.03$, $p \leq .001$].

The coefficients table indicated that among socio-demographic characteristics age ($\beta = -.16$, $p \leq .05$) significantly contributes to predicting strain-based work-family conflict among native workers and the negative beta value indicates that as age increased, decreased incidence of strain-based work-family were experienced among this worker population. Holding all the other variables constant with every unit increase in age, a -0.04 unit decrease in strain-based work-family conflict among native workers is predicted.

Employees who worked a rotating and split shift ($\beta = .18$, $p \leq .01$) were more likely to experience strain-based work-family conflict as compared to employees who worked regular day time shift. With every unit increase in working rotating and split shift a 2.63 unit increase in the experience of strain-based work-family conflict is expected. Workload pressure ($\beta = .37$, $p \leq .001$) was significantly associated with strain-based

work-family conflict and total hours worked ($\beta = .13, p = .06$) was also approaching significance. Holding all the other variables constant, with every unit increase in workload pressure a 0.26 unit increase in the experience of strain-based work-family conflict is expected. Supervisor social support ($\beta = -.17, p \leq .05$), work-role ambiguity ($\beta = -.14, p \leq .03$), and learning requirements ($\beta = -.19, p \leq .02$), are significantly negatively associated with strain based work-family conflict. Negative association between supervisor social support and strain-based work-family conflict and learning requirements and strain-based work-family conflict indicated that as supervisor social support and learning requirements increased the experience of strain-based work-family conflict decreased. With every unit increase in supervisor social support a -0.09 unit decreases in strain-based work family conflict is predicted and with every unit increase in learning requirements a - 0.18 decrease is expected holding all the other variables constant. Negative beta co-efficient of work-role ambiguity ($\beta = -.14, p \leq .03$) indicated that employees who did not experience work-role ambiguity were less likely to experience strain-based work-family conflict as compared to employees who experience work-role ambiguity. With every unit decrease in the experience of work-role ambiguity a -1.27 unit decrease in strain-based work-family conflict is expected.

In summary, the results indicated that immigrant workers who are married, have lower levels of co-worker social support, higher levels of workload pressure, and work more hours experience higher levels of time-based work-family conflict and immigrant workers who are married, have lower levels of supervisor social support, experience more workload pressure, work more total hours and have lower levels of learning requirements experience more strain-based work-family conflict.

Similarly, native workers who have childcare responsibilities, have lower income, higher workload pressure, lower learning requirements, work at rotating or split shift and at jobs that have flexible, variable, or no set work hours experience higher levels of time-based work-family conflict. Native workers who are younger, have childcare responsibilities, lower supervisor social support, higher workload pressure, higher total hours worked, lower learning requirements, work at rotating or split shift, and have work role ambiguity are more likely to experience more strain-based work-family conflict. A detailed description of the interpretation and implications of these findings follows next in the discussion section.

Table 4.11

Strain-Based Work-family Conflict among Immigrant and Native Workers (variables in the final model)

Predictors	Immigrant Workers		Native Workers	
	B	β	B	β
Age			-.04	-.16*
Marital Status (married/remarried/living together)	.81	.14*		
Parental status (any child \leq 18)			.72	.12
Supervisor social support	-.13	-.25**	-.09	-.17*
Rotating /split shift (dum 2) (Ref Cat=reg. day time sched.)			2.63	.18**
Work load pressure	.24	.34***	.26	.37***
Total hours worked	.04	.16*	.03	.13
Learning requirements	-.27	-.24**	-.18	-.19*
Work-role ambiguity (strongly /somewhat disag.)			-1.27	-.14*
F		17.69***		12.03***
n		154		162
R ²		.37		.39

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Chapter Five: Discussion and Limitations

Workplaces have become increasingly more reliant on an ethnically diverse immigrant worker population. To date, much of the work-family research conducted in the U.S. has focused on the issues of white, middle-class workers, excluding diverse populations such as immigrant workers. The purpose of this dissertation research is to extend our understanding of work-family conflict by identifying the determinants of work-family conflict among immigrant workers. In particular, this study set out to understand the job and workplace conditions that are associated with work-family conflict among immigrant workers and to determine whether these conditions are different from those associated with work-family conflict among native U.S. workers. In this chapter, the research findings, how they fit within the broader work-family and immigrant worker literature, and the limitations of this study will be discussed.

There are three major findings around which this discussion section is organized. First, findings reveal that there are only two job demands -- work schedule and learning requirement --that are experienced as significantly different between the two worker populations. Specifically, results indicate that immigrant workers are less likely than native workers to work a day shift and more likely to have jobs in evening, night, rotating, or a split-shift schedules. This is consistent with other research. Presser (2003) found in her analysis of the Current Population Survey that Hispanic workers were more likely to work a non-standard schedule (evening, night, rotating, or split schedules) than non-Hispanic, white workers who were more likely to work a standard day schedule. As discussed in the literature review section, immigrant workers are more likely to be employed in the service industry, work as operators, fabricators, laborers, or work in

farming, forestry, and fishing industries (MPI, 2004). Nonstandard work shifts are common within these industries, increasing the likelihood that immigrant workers may be employed in nonstandard shifts.

Learning requirements on the job is the second job demand that emerged as different between the two work populations. Specifically, immigrant workers experience higher learning requirements than native workers. This finding is also consistent with the existing literature. Foreign academic and employment credentials are often not recognized or transferred equitably when individuals immigrate to the U.S. (Chiswick & Miller, 2009). As such, immigrant workers may be required to take jobs outside their acquired skills and training, potentially causing them to experience a sharp learning curve (Chiswick & Miller, 2009; Li & Teixeira; 2007; Wang & Lo, 2005). Another possible reason that immigrant workers experience higher learning requirements is their need for acculturation. Because the very nature of work is culturally defined, work-role responsibilities and expectations are predisposed to social norms and practices (Chang & Ding, 1995; Lituchy, 1997). Thus, immigrant workers may need to acculturate to workplace role responsibilities and expectations and may be required to learn many aspects of work and workplaces in a way that might not be necessary for native workers who are already familiar with the work culture.

It was a surprise to find that there were no differences between the two worker groups in terms of the other three job demands examined --mean number of hours worked, workload pressure, and work-role ambiguity. As discussed in the literature review, in comparison to native workers, immigrant workers are more likely to work longer hours (Lung, 2010; Wall & José, 2004) and have jobs that require physical

exertion and psychological demands (Acosta-Leon et al., 2006; Capps et al., 2007; Hincapiè, 2009). One of the plausible reasons that there were no differences between immigrant and native workers' experiences of the three job demands could be related to the tenure in the U.S. among immigrant workers in this sample. Long-term immigrant workers are more likely to have language fluency and higher educational credentials as compared to short term workers (Newburger & Gryn, 2009). These factors also contribute significantly to increase their human capital, making them more similar to native workers in various industries and occupations; U.S. census data (2007) also shows that significantly higher numbers of recent immigrants are employed in low wage industries and occupations as compared to long term residents (Newburger & Gryn, 2009) who are similar to native workers in terms of occupational distribution. The results in this dissertation research also indicate that this immigrant sample is not significantly different than native workers in terms of industry and occupations where they work.

The participants in this sample may have also been acculturated to norms and values of the U.S. workplace and the job demands experienced similarly to the native workers in the sample (Massey, 1995). They may have acquired the language, education, and skills necessary to find employment in jobs with comparatively similar working conditions to those of native workers (Hou, 2009). As discussed earlier, workplace role expectations are predisposed to cultural and social norms, and social practice (Chang & Ding, 1995; Lituchy, 1997). Thus with acculturation, these demands may be experienced similarly between the two populations.

Likewise, there were no differences between native and immigrant workers' perceptions of the two types of work-family conflict: time-based and strain-based. This

finding is not consistent with previous research that indicates that norms, values, and expectations pertaining to work and family are generally experienced differently among different cultures (Spector et al., 2004; Yang et al., 2000). As mentioned previously, immigrant workers in this sample seem to be more culturally aligned with native worker populations, as evident by the fact that immigrant workers in this sample have resided in the U.S. an average of 19 years. And hence, it is possible that immigrant workers are more similar to native workers in their experience of work and family than they are different. They may have established and organized themselves around work and family similarly to native workers and their work-family conflict experiences are not significantly different from native workers.

The second major finding from this study pertains to the discovery that the predictors of time-based and strain-based work-family conflict are both similar and different among immigrant and native workers. Workload pressure and total hours worked is significantly related to time-based, work-family conflict for both groups. These findings are consistent with work-family conflict research (Stieber, 2009) and supported by numerous theoretical and empirical studies (Fenwick & Tausig, 2001; Greenhaus & Beutell, 1985; Major et al., 2002; Voydanoff, 2004) that found that workload pressure and total hours worked contributed to time-based, work-family conflict.

The predictors of time-based, work-family conflict for the two worker populations are different in that workload pressure, total hours worked and lack of co-worker social support contributed significantly towards the experience of time-based work-family conflict among immigrant workers; whereas lower income, childcare responsibilities, working a rotating or split shift, workload pressure, total hours worked and not having a

learning requirement are significant predictors of time-based, work-family conflict among native workers.

Taken together, results indicate that the total variance explained by all five job demands for immigrant workers is less than it is for native workers, and individual job demands also contribute less towards the experience of time-based work-family conflict among immigrant workers as compared to native workers. One possible reason for this difference could be that the strain associated with job demands may be relative to the strain associated with not having a job at all. That is, the disadvantages faced by immigrant workers in the labor market, as a result of lower educational levels, and language barrier even after being in the U.S. for a long time may limit the employment opportunities available to immigrant workers (Camarota, 2001; Carliner, 1996, 2000) and give them less bargaining power. Immigrant workers are also less likely to express discontent about the conditions of their job because of perceived job insecurity (Catanzarite, 2002). Hence immigrant workers may be willing to endure more working hours and job pressure because having a job is less stress producing than not having a job. Therefore, these job demands may be experienced at a reduced level and not contribute toward the experiences of time-based, work family conflict as much as among native workers.

As with time-based, work-family conflict, the independent variables associated with strain-based, work-family conflict among the two populations are both similar and different. Supervisor support, workload pressure and learning requirements were associated with strain-based, work-family conflict for both worker populations. They differed in that among immigrant workers, marital status and total hours worked are

associated with strain-based, work-family conflict whereas among native workers, ages, working rotating or split shift, and work-role ambiguity are associated with strain-based work-family conflict.

The fact that working a non-standard shift is not associated with strain-based, work-family conflict among immigrant workers was surprising, as previous research indicates that non-standard shifts contribute to strain-based work-family conflict (Kinnunen & Mauno, 1998). One possible reason why working non-standard hours does not contribute to strain-based work-family conflict among immigrant workers could be that immigrant workers are more likely to be working at jobs where non-standard shift work is most prevalent (MPI,2004) and is, therefore, perceived as the norm. As previously discussed, employment opportunities for immigrant workers may be limited, and those that may be available are within industries and occupations that often require non-standard schedules. Having a job requiring non-standard hours may be more important than not having secure employment.

Another possible reason that working a non-standard shift is not significantly associated with strain-based, work-family conflict among immigrant workers could be because working a non-standard shift might give immigrant workers the flexibility to take on additional work shifts (Presser, 2003). Consistent with the literature (Carliner, 1996) average wages earned by immigrant workers in this sample is also significantly less than the hourly wage of native workers and thus, working an additional shift may be welcomed. The tradeoff of working a non-standard shift which may allow for picking up extra shifts and which is likely to pay comparatively higher wages (Barton, 1994) may be

preferred over working a standard shift. As such, working irregular hours does not contribute towards the experience of strain-based, work-family conflict.

Significant association between workload pressure and strain-based, work-family conflict for both worker populations suggests that being employed in jobs that are mentally and physically demanding require considerable effort to meet multiple role responsibilities, and this results in strain-based, work-family conflict (Steiber, 2009). This finding is consistent with other research on strain-based, work-family conflict and provides further support for the notion that strenuous demands at work result in energy depletion, making it difficult for employees to meet multiple role obligations, thus resulting in the experience of strain-based, work-family conflict (Mauno et al., 2006; Steiber, 2009).

Learning opportunities at work have been associated with reduced work-family conflict (Jones & Butler, 1980; Voydanoff, 2004). Results indicate that among both worker samples there is a negative relationship between learning requirements and strain-based, work-family conflict. That is, the more learning requirements workers experience, the lower the experience of strain-based, work-family conflict. One possible explanation for this negative relationship could be that despite the challenges experienced, their hope that their new found knowledge may lead to a better life situation (Grahame, 2003) may contribute to their perceptions of learning requirements as opportunities rather than strains. These results are consistent with other research that found that good career opportunities safeguard against the experiences of strain-based, work-family conflict (Steiber, 2009).

Another way in which the independent variables differ in explaining the variation in time-based and strain-based, work-family conflict among the two worker populations is the contribution of socio-demographics. As noted previously, among immigrant workers none of the socio-demographic characteristics contributed significantly to time-based, work-family conflict. Being a parent and lower levels of income were associated with time-based, work-family conflict among native workers only. Similarly, being married was a significant predictor of strain-based work-family conflict among immigrant workers, and being younger was associated with strain-based, work-family conflict among native workers. Socio-demographic characteristics have consistently been shown to have dissimilar effects on diverse cultures (Tsui & Farh, 1997) as well as disparate influence on work and family experiences in diverse cultures (Tsui et al., 1995). Consistent with other research (Clark, 1998; Hatton, 1997), this research results also indicated that immigrant workers are more likely to be younger and have more parental responsibilities as compared to native workers. This also means that immigrant workers are at a life cycle stage where they have to bear more family responsibilities. But childcare responsibility was not a significant predictor of time-based and strain-based work-family conflict among immigrant workers but significantly associated with time-based work-family conflict among native workers.

One other possible reason as to why socio-demographic characteristics and job characteristics associated with two different types of work-family conflict are different may be because of the cultural experience of work and family. Work and family are experienced differently among unique cultures and, therefore, these cultural differences may play a part in how socio-demographic characteristics and job demands contribute

towards the experiences of work-family conflict (Aryee et al., 1999; Grzywacz et al., 2007). Research suggests that within certain cultures, work and family are viewed as integrated, where work is viewed as a means that helps to fulfill family responsibility and also to maintain the economic well-being of the family (Aryee et al., 1999; Grzywacz et al., 2007).

Thus, job demands that help to fulfill family roles (e.g. economic security, family well-being) may not be perceived as strain producing and are not experienced as conflict. These results are consistent with previous research on samples from diverse cultures (Grzywacz et al., 2007; Spector et al., 2004; Yang et al., 2000). In this study, culture and acculturation were not examined among the immigrant sample, but the results indicate that culture and acculturation are complex processes and are important dimensions of how work and family are experienced among immigrant populations, and should be included in future studies of work-family conflict.

The third major finding focuses on the relationship between social support at work, and time and strain based work-family conflict. In this study, it was surprising to see that supervisor social support was not significantly associated with time-based, work-family conflict among both worker populations. However, it was significantly related to strain-based, work-family conflict. The inverse relationship between supervisor social support and strain-based, work-family conflict suggests that the more social support from supervisors that workers receive, the less strain-based, work-family conflict workers will experience. These results suggest that the availability of social support from one's supervisor is helpful in reducing the experiences of strain-based, work-family conflict among both the worker samples (O'Driscoll et al., 2003).

Similarly, co-worker social support was a significant predictor of only time-based, work-family conflict among immigrant workers, and there was an inverse relationship between the two variables, indicating that with increased co-worker social support the experience of time-based work-family conflict decreased. Typically, immigrant workers rely heavily on network connections to acquire employment and, therefore, they are more likely to work where they already know someone (Sanders, Nee, & Sernau, 2002). Social support from these co-workers may help to reduce time-based, work-family conflict as these support networks may be instrumental and helpful in taking time-off from work and managing family role responsibilities. These findings add to the extensive empirical and theoretical literature on the role of social support at work in reducing work-family conflict (Anderson et al., 2002; Frone, Yardley et al., 1997; Shinn et al, 1989; Voydanoff, 2004).

The correlation matrix revealed a significant bivariate relationship between supervisor social support, co-worker social support and time-based and strain-based work family conflict. There was an inverse relationship between social support at work from supervisor and co-workers, and the experiences of time-based and strain-based work family conflict -- as supervisor and co-worker social support at work increased, the experience of time-based and strain-based, work-family conflict decreased. However, when other dimensions of workplace are included in the multivariate model, some of these relationships between social support factors and the two forms of work-family conflict do not emerge as significant. These findings imply that the proximal factors may be mediated by more distal factors that are associated with work-family conflict (Frone, Yardley et al., 1997).

This dissertation research extends our understanding of the two dimensions (time-based and strain-based) of work-family conflict and the predictors associated with different types of work-family conflict among an understudied group. Research conducted to date on work-family conflict and immigrant workers and workers from other countries have used a single dimension of work-family conflict (Aryee et al., 1999; Grzywacz et al., 2007; Yang et al., 2000). While an important first step, a single dimension of work-family conflict limits our understanding of how various dimensions of work-family conflict relate to various job demands among non-native workers. Since these two types of work-family conflict have different antecedents among the two populations, their separate consideration among diverse populations can give insights into how people experience various types of work-family conflict.

Implications for Social Work

This study's findings offer three primary implications to social work practice. These implications are discussed using the person-in-environment perspective (Buchbinder, Eisikovits, & Karnieli-Miller, 2004; Germain, C.B. & Gitterman, A., 1995) and focus primarily on the implications for immigrant workers. First, from a micro perspective, this study's findings indicate that job conditions contribute to work-family conflict which has been associated with negative implications on workers' physical and mental health (Anderson et al., 2002; Aryee, 1992; Brough et al., 2005; Hang-yue et al. 2005; Honda-Howard & Homma, 2001; Madsen et al., 2005; Thomas & Ganster, 1995). Although among immigrant workers a very high rate of depression has been reported (Ding & Hargraves, 2009), the association between immigrants' work-family conflict and mental health has been studied very little. In one study, Grzywacz, Quandt, Arcury and

Martin (2005) found that increased work-family conflict was associated with higher levels of perceived depression, anxiety, and stress among immigrant workers. As such, social workers who are working with diverse worker populations, whether in the clinical setting or in an advocacy role, should consider work and work-family conflict as possible contributors to illness, psychological problems, and somatic complaints.

Second, this study has implications for social work practice at the mezzo level. The results of this study indicate that the social support from supervisors helps to reduce the experience of strain-based, work-family conflict. Research also suggests that social support may be experienced differently among immigrant workers in comparison to native workers as a result of differences in expectations of social support at work (Wong & Song, 2006), and the available social support at work may be inadequate or differ significantly from the norms of social support to which the immigrants may be accustomed (Ojo, 2009). At the mezzo level, social workers can use the knowledge of immigrants' differing needs of social support to advocate for programs in organizations where immigrant workers are employed that support immigrant employees' unique social support needs and train supervisors to be sensitive to the needs of immigrant populations.

And third, this study has implications for macro practice. The results indicate that immigrant workers are likely to experience more learning requirements at work than native workers, which has macro level implications for education and training among this population. Studies have shown that immigrant workers are more likely to work at riskier jobs because of lower educational credentials and language barriers (Orrenius & Zavodny, 2009). Less education and language barriers also contribute to inadequate training (Rathod, 2009). The Occupational Safety and Health Administration (OSHA) not

only sets and enforces standards to ensure workplace safety, but also promotes education and training among workers. Although training and education in Spanish is promoted by OSHA, employers are not required to provide training in other languages, nor geared to the educational level of the employees (Rathod, 2009). This policy gap increases many immigrant workers' vulnerabilities to risk in the workplace. To address this issue, policy advocates could push for policies requiring employers to provide education and training to their employees in the languages in which they are proficient and also in a manner that meets their educational levels.

Every year, close to 70,000 refugees come to United States from various parts of the world (Martin, 2011). Some of the barriers identified by refugees and immigrants to successful transition into American work place are: lack of language skill, transportation, training and information, workplace know-how, and length of time here in the United States (Fahlberg, 2001). The results of this dissertation research also suggest that it takes a long time for the immigrants to overcome some of the labor market disadvantages. Political refugees who come to United States are expected to become financially independent within ninety days, which may be an unrealistic expectation. There is a need for policy change, which recognizes that some refugees may need a longer time to become financially independent, and need support for a longer period of time in their resettlement.

The points discussed earlier indicate that the field of work-family has micro, mezzo, and macro implications for social work, and yet the field of work-family is almost non-existent in social work studies and practice. Students and practitioners don't know enough about work-family conflict, even though so many of them experience it and

recognize it as a source of stress for individuals and families. Also, there are organizational implications such as high turnover, low productivity, burnout, and absenteeism to name a few. Thus, there is a recognized and supported need to develop a field of work-family in social work.

Limitations and Directions for Future Research

Research examining the association between job demands, social support at work, and work-family conflict among immigrant workers is very limited. The current study makes three important contributions to the literature on work-family conflict by addressing this gap. First, it is among the first few studies to examine work-family conflict among immigrant workers; second, it is, to the best of this author's knowledge, the first study that has examined two different types of work-family conflict among immigrant workers; third, this study extends our understanding of the predictors of work-family conflict among immigrant and native workers in the United States.

The findings from this exploratory study provide some support for the existing literature which indicates that immigrant workers have different perspectives on work and family, and different experiences of work-family conflict compared to native workers. These findings strongly indicate the need for further research into the field of work-family among immigrant workers. The aspects that need to be taken into consideration while understanding the nuanced complexities of the work-family experiences among immigrant workers are their length of stay in the United States, educational attainment, language fluency, whether they are naturalized citizens, and their cultural experience of work and family. Immigrants are not a homogeneous group, and because their human capital can have an impact on how work and family are experienced,

there is a need to understand how these experiences can be different between the two groups and supported in each. Also, as work and family experiences are culturally defined (Spector et al., 2004; Yang et al., 2000) it is imperative to understand the nuances and complex factors of culture and acculturation into the experiences of work-family conflict. Designing effective work-family practice strategies and policies for immigrant working populations are predicated on identifying the factors that are associated with the experiences of work-family conflict among immigrant workers from diverse cultures, including recent immigrants and long-term residents. Subsequently, this research will also help us to understand and identify the risk and protective factors in the experience of work-family conflict over the years.

There are at least three areas for future research. First, because work and family are framed by cultural and social norms, the experience of work-family conflict is impacted by culture. This suggests that culture is an important factor to be considered in understanding work-family conflict among immigrant workers.

Second, when immigrant workers migrate, they experience some acculturation which has an impact on how work and family are experienced. The nuances of acculturation are intricate and multidimensional. Hence, the needs of recent immigrant workers in terms of work-family conflict may be dissimilar compared to long-term residents. For instance, the need for social support is impacted by the length of resettlement years. It has been documented that the need for social support among immigrant workers is highest during the initial resettlement years and diminishes as resettlement years increase. Thus, years of resettlement in the United States also have implications for how social support is needed and experienced with the level of

acculturation, which can impact the experience of job demands and work-family conflict among immigrant populations.

Third, immigrant workers' workplace experiences are affected by human capital (language skills, educational credentials, and job skills) that these workers bring when they immigrate. This also determines the industries and occupations in which immigrant workers are often employed, which have implications for the experiences of work-family conflict among this population. Because of all the reasons discussed above, the variables associated need to be examined in future research to give a better understanding of how working conditions in the industries and occupations disproportionately occupied by immigrant workers, contribute to their work-family conflict.

Though this dissertation research advances our knowledge about work-family conflict among immigrant workers, there are several methodological limitations of this study which are discussed below.

Data collection procedure.

As discussed in chapter three, random digit dialing procedure was used to collect data used in this study. This method of data collection may contribute to a bias that may be introduced in several ways. First, this approach may eliminate people who work non-standard hours or multiple low-wage jobs, and therefore are unavailable to answer the telephone during peak data collection periods. Previously reviewed research indicates that immigrants are more likely to be working non-standard hours and multiple low-wage jobs (MPI, 2004, Presser, 2003; Barvosa, 2008, p.44). Second, increased reliance on mobile phones as primary telephones reduces the population of workers from which a sample is drawn. Given the high incidence of poverty among immigrant workers

(Kalleberg et al., 2000; Barvosa, 2008, p.44), it is likely that they are unable to afford a home telephone line. These factors could have led to selection bias. Thus, the generalization of this study's results should be made considering these limitations.

Data collection instrument.

The survey instrument used to collect data from U.S. workers was developed and pilot-tested with native workers; it is possible that the survey instrument was not adequately pilot tested among other working populations such as immigrants. Thus, further research is required to establish reliability and validity of this study's research measures among an immigrant working population.

Further research is required to improve the validity and reliability of social support, job demands, and work-family conflict measures among ethnically diverse populations. The measures utilized in this study have generally been used among U.S. residents and not specifically with an employed immigrant population. Thus, reliability and validity of the measures have not been determined using an ethnically diverse, non-native population. In an effort to minimize this limitation, exploratory factor analysis and reliability analysis were conducted with both worker samples. Alpha coefficients ranged from .68 to .90 for all of the measures used in this study, except for time-based work-family conflict. Alpha reliability for time-based work-family conflict is .55 and .61 among the immigrant and native workers sample respectively, indicating that there is not much difference between the two samples alpha reliability. Nonetheless, because of the low alpha reliability scores, time-based work-family conflict measure is a limitation in this study.

The 2002 NSCW was conducted in English and Spanish; as such, an attempt was made to convey the original meaning of questions to the respondents for whom English was not their primary language. However, the meaning of how work and family are experienced among immigrant workers may not have been captured by the existing measures, and hence has been identified as a limitation in this study. This limitation has been identified as a challenge in cross cultural research (Grzywacz et al., 2007). In particular, previous research suggests that response categories need to be modified from affective response set (e.g., strongly agree, agree, disagree, strongly disagree) to frequency response set (e.g., never, rarely, sometimes, often, always) for immigrant workers with low levels of education. Respondents find it difficult to respond to affective categories (Bellavia & Frone, 2005; Grzywacz et al., 2007). In this research, some of the scales were measured using an affective response set; in the future, it is suggested that studies conducted on immigrant populations use frequency responses in their scales, or at least pilot test measures on their targeted worker population.

Another limitation of this study is that it uses a co-worker social support measure that is comprised of three items which assess emotional and instrumental support from co-workers, but lacks questions that assess informational and appraisal support from co-workers. While social support has been defined as availability of informational, emotional, instrumental, and appraisal support, only social support from supervisor measures all these dimensions of social support. Research suggests that among immigrant workers, informational support from co-workers is very important in terms of employment (Wong & Song, 2006). Appraisal support is also important to immigrant workers because such support from co-workers might assist them to acculturate to new

work requirements, expectations, and workplace values (Vega & Rumbaut, 1991). In future research studies, inclusion of these additional dimensions of co-worker social support is recommended.

Small sample size.

The small sample (immigrant workers $n = 157$, native workers $n = 165$) size limits the generalizability of findings in this study. However, due to the exploratory nature of the current study, a small sample size is acceptable. Findings from this study can be used to inform future research on the topic, including studies with larger sample sizes that would provide greater statistical power and also extend the generalizability of the study findings to larger populations.

Immigrant population treated as a homogenous group.

In this study, immigrant workers were treated as a homogenous group. However, descriptive statistics indicate that workers identified themselves as Hispanics, Asian, Indian (from India); moreover, results indicate that workers have resided in the U.S. ranging from 0 to 60 years. Both of these factors may influence immigrant workers' experiences, and as such, in future studies of work-family conflict among immigrant workers, it will be important to understand how country of origin or cultural variation among a group of immigrants may influence study results. Group differences in samples comprised of respondents from different countries have been examined and explained in terms of differences in experiences due to cultural differences often referred to as in literature as "individualism" and "collectivism" (Fu & Shaffer, 2001; Grzywacz et al., 2007; Hofstede, 1984; Yang et al., 2000). Similarly, work and family norms and cultural expectations vary widely across cultures (Grzywacz et al., 2007; Hofstede, 1984), and

may have significant implications on how work-family conflict is experienced (Yang et al., 2000). Further studies are warranted to examine the effect of cultural differences on the experiences of work-family conflict among various immigrant groups from diverse cultures.

Theoretical limitations, culture and acculturation.

When immigrants move to another country, they are likely to experience acculturation as a result of exposure to foreign environments and as an adjustment to new culture (Vega & Rumbaut, 1991). Acculturation is not only experienced at the artifacts level (food, clothing, language, etc.) but also in terms of values and beliefs, which have implications on how work and family are experienced. Thus, the nuances of culture and the acculturation process need to be examined and included in work-family conflict models among immigrant populations as cultural beliefs and values shape the experiences and consequences of work-family conflict (Aryee et al., 1999; Grzywacz et al., 2007; Spector et al., 2004; Yang et al., 2000). Future studies that examine cultural beliefs and acculturation in terms of work values and their impact on work-family conflict are warranted to get a deeper insight into work-family conflict experienced among immigrant populations.

Conclusion

Although there are several methodological and theoretical limitations in this exploratory study, it makes several important contributions to the work-family conflict literature. First, the results of this study corroborate the results of other research studies (Grzywacz et al., 2007) and further strengthen the argument that work-family conflict may be experienced differently among immigrant populations compared to native

workers in the United States. Second, this study adds to the limited literature on the experiences of work-family conflict among immigrant populations. More specifically, this study extends our understanding of two distinct types of work-family conflict, namely time-based, work-family conflict and strain-based, work-family conflict among immigrant workers in the U.S. It also adds to knowledge of the job demands that are associated with the two types of work-family conflict among the immigrant and native workers in the United States. Furthermore, it clarifies the importance of social support from supervisors at work in reducing job demands.

Since the 1990s there has been a surge in scholarly reports about the antecedents and consequences of work-family conflict among the general population. This research begins to uncover the nuances of work-family conflict among immigrant workers, which has implications for overall well-being of immigrant workers, their families, and the organizations where they are employed. A need for organizational programs that better support distinctive needs of this population has been recognized. The intersection of migration, culture, and acculturation produces unique and different work structures and networks that warrant recognition in work-family policies at the organizational level and also in practice at the individual level for individual-level outcomes.

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