AN EXAMINATION OF WORK-FAMILY CONFLICT AND INTENTION TO LEAVE AMONG COLLEGE AND UNIVERSITY FOODSERVICE MANAGERS

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CHAPTER I

INTRODUCTION

Extensive studies have addressed the impact of employees' turnover on various facets of the hospitality industry (Birdir, 2002; Hinkin & Tracey, 2000; Pavesic & Brymer, 1990; Sarabakhsh, Carson, & Lindgren, 1989; Simons & Hinkin, 2001). The excessive level of employee turnover has been one of the primary concerns in the food service industry. The most prominent effects are the quality of the products and services, excessive expenses incurred as a result of the recruitment and replacement, and, the most important, the loss of profitability (Berta, 2004; Enz, 2004; Ghiselli, La Lopa, & Bai, 2001; Hinkin & Tracey, 2000).

Although the food service industry is experiencing an all time high turnover rate compared with other industries, such as the electronics industry, it is doing a less favorable job of managing turnover (Woods & Macaulay, 1989a). The problem of high turnover will worsen since the general labor market will be getting tighter than ever before (Berta, 2004). In addition, as stated by Galbreath (2001), "many analysts believe that there may be 20 million jobs unfilled by the end of 2008….Some analysts are projecting a shortfall of up to 30 million employees (p.1)."

As a part of foodservice industry, the college and university foodservice segment has also experienced the challenges of high turnover, labor shortage, and, what's more,

"…the pain of campus wide budget cuts, wage freezes and hiring moratoriums (King, 2002, p. 4)". Foodservice operators are in an industry where management turnover averages from 40% to 50% annually (Perlik, 2003); moreover, it is estimated that, at any given time, "management companies alone are short 5,000 entry and mid-level onsite managers (Schuster, 2005, p. 32)."

Factors that have been studied and have demonstrated the strongest empirical correlations with turnover in general business settings are age, tenure, job content, and job satisfaction (Mobley, Griffeth, Hand, & Meglino, 1979; Price, 1977). Other variables that also have revealed varying correlations are skill level, type of occupation, and education (Price, 1977).

Since the characteristics of each industry are different from others and the reasons employees leave that specific industry are complex, some factors leading to employees' intention to leave in one industry may not necessarily apply to the others. It has been presented evidently that job-content factors are significantly related to turnover (Mobley, Griffeth, Hand, & Meglino, 1979), and their relationship to job satisfaction are also associated with turnover. However, there is no consensus on the causes for turnover in the food service industry. Sneed (1988) found no significant relationship between job characteristics and satisfaction in one study, but in another significantly study found a significant relationship between job characteristics and satisfaction in a foodservice setting.

In the foodservice industry, a work schedule which was characterized by excessive work hours and scheduling was found to be related to managers' intention to leave (Berta, 2004; Crandall, Emenheiser, & Jones, 1995). In addition, late hours and long hours also

create conflicts between home and job for the employee in the foodservice industry. Several reports revealed that restaurant managers quit not because they were dissatisfied with the business but the amount of time required which prevented them from being with their families and friends (Berta, 2004; Parsa, Self, Njite, & King, 2005).

Parsa et al. (2005) investigated why restaurants fail and stated that the restaurant owners attributed their either success or failure to the family pressures and sacrifices. In McFillen, Riegel, & Enz (1986)' study, restaurant managers ranked work hours and pressures near top among 14 reasons that they leave a job. In addition, dissatisfaction with pay was the top reason to quit the job (McFillen, Riegel, & Enz, 1986).

Furthermore, work-family conflict, also a type of inter-role conflict, occurs when some responsibilities from work and family are not compatible or interfere with each other (Greenhaus & Beutell, 1985), and such conflict effects will have a negative influence on an employee's work situation, such as lower overall job satisfaction (Boles & Babin, 1996), and greater possibility to leave a position (Good, Sisler, & Gentry, 1988).

In addition, it is suggested that job-related stress is a causal antecedent of work-family conflict (Bedeian, Burke, & Moffett, 1988) and the inter-role conflict between work and family contribute to high turnover in the restaurant industry (Berta, 2002). Job-related role stress consists of two discrete elements, role conflict and role ambiguity (C. D. Fisher & Gitelson, 1983; Jackson & Schuler, 1985; Netemeyer, Johnston, & Burton, 1990). Both role conflict and role ambiguity can be influential in the service industries which the work environment is customer-driven and the workers are

direct contacting with customers (Brown & Peterson, 1993; Dubinsky & Hartley, 1986; Michaels, Day, & Joachimsthaler, 1987).

Statement of the Problem

Despite the fact that employee turnover has been widely researched in the management field, little attention has been focused on the role that pay satisfaction, work scheduling, role conflict, role ambiguity, and work-family conflict play in the turnover process among the college and university foodservice managers.

Purpose of the Study

The purpose of this study was to gain understanding of the relationships between pay satisfaction, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave, in the college and university foodservice industry.

Research Questions

The following research questions will be examined in this research:

1. Is there a relationship between the Work-Family Conflict (WFC) and role conflict among the college and university foodservice managers?
2. Is there a relationship between the Work-Family Conflict (WFC) and role ambiguity among the college and university foodservice managers?
3. Is there a relationship between the Work-Family Conflict (WFC) and work schedule among the college and university foodservice managers?
4. Is there a relationship between the Work-Family Conflict (WFC) and pay satisfaction among the college and university foodservice managers?
5. Is there a relationship between role conflict and intention to leave the current job/organization?
6. Is there a relationship between role ambiguity and intention to leave the current job/organization?
7. Is there a relationship between work schedule and intention to leave the current job/organization?
8. Is there a relationship between pay satisfaction and intention to leave the current job/organization?
9. Is there a relationship between the WFC and intention to leave the current job/organization?
10. What is the most influential factor in the college and university foodservice managers' WFC?

11. What is the most influential factor in the college and university foodservice managers' intention to leave the current job/organization?

Significance of the Study

Understanding the factors which have an impact on the different dimensions of the emergence of turnover intentions can help the human resource department (HRD) of the college and university foodservice industry to make better human-resource decisions. This, in turn, will help to retain the desirable employees, or at least, minimize the concomitant loss of revenue. For example, the guests who follow favorite staff to another foodservice facility, or more seriously, the current employees who follow their colleague to work for another organization thus are creating a snowball turnover effect (Shaw, Duffy, Johnson, & Lockhart, 2005).

Definition of Terms

1. **NACUFS**: The National Association of College and University Food Services. NACUFS is a volunteer professional association for colleges and universities who operate and have responsibility for their own food service departments which can be single or multi-units. NACUFS is a trade association for campus dining departments at institutions of higher education in the United States, Canada, Mexico, and other countries.

2. **Manager**: Any person that performs the job which includes the supervision of other persons which includes managers, assistant managers, supervisors, directors, etc. (Vroom, 1965).
3. **Retention**: As stated by Phillips and Connell (2003), "retention is the percentage of employees remaining in the organization. High levels of retention are desired in most job groups (p.2)."
4. **Turnover**: According to Phillips and Connell (2003), turnover is "the opposite of retention, refers to the percentage of employees leaving the organization for whatever reason(s). 'Avoidable' turnover is distinguished from 'unavoidable' so that the proper emphasis can be placed on the avoidable portion (p.2)."
5. **Role Conflict**: According to Spector (1997), "role conflict exist when people experience incompatible demands about their functions and responsibilities (p. 39)."
6. **Role Ambiguity**: According to Spector (1997), "role ambiguity is the degree of certainty the employee has about what his or her functions and responsibilities are (p. 39)."
7. **Work-family conflict**: Form of inter-role conflict in which the amount of time devoted to work and strain created by the job interfere with performing family-related responsibilities (Netemeyer, Boles, & McMurrian, 1996)
8. **Family- work conflict**: Form of inter-role conflict in which the amount of time devoted to work and strain created by the family interfere with performing family-related responsibilities (Netemeyer, Boles, & McMurrian, 1996).

CHAPTER II

REVIEW OF LITERATURE

Introduction

This study, which is exploratory in nature, was conducted to examine college and university foodservice managers regarding a number of factors, which are role conflict, role ambiguity, work schedule, pay, work-family conflict, family-work conflict, and intent to leave. To be competitive in the foodservice business, the foodservice management team needs to recognize the problem of employee turnover, since quality service and customer satisfaction are regarded as some of the most important core competencies in the foodservice industry. Especially since college foodservice managers have to arm themselves with sophisticated marketing plans in order to meet the demanding, fast-moving clientele and to keep students and their dining dollars on campus. By examining the influence of a series of proposed decision-making factors, it is hoped that, by incorporating the factors that attribute to work-family conflict and ultimately influence the intention to leave in a single investigation, this study can contribute to the existing literature on the selected variables by providing a theoretical foundation for future research on predicting the college and university foodservice managers' intention

to leave the organization. Furthermore, it can help the Human Resource Department of the organization to make related decisions and retain desirable staff successfully.

Work-Family Conflict

As Greenhaus & Beutell (1985) defined, work-family is "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. (p. 77)" Studies also further indicate that work-family conflict influences a number of outcomes including psychological distress and work related impacts such as job satisfaction, organization commitment, and ,ultimately, turnover (Adams, King, & King, 1996; Aryee, Luk, & Stone, 1998; Boles, Howard, & Donofrio, 2001; Kinnunen, Geurts, & Mauno, 2004; Netemeyer, Boles, & McMurrian, 1996).

Furthermore, conflict between work and family roles alters employee's perceptions of the quality of life and the quality of family life (Scandura & Lankau, 1997). This, in turn, can impact organizational outcomes such as productivity, absenteeism, and turnover. For example, if employees are causing problems at home due to the stress at work (i.e., long hours, weekend or holiday hours, etc.), the employees are likely to leave their job in an effort to prevent turmoil in their home lives.

In addition, work-family conflict has been shown to affect employees' work-related behaviors such as absenteeism, tardiness, organizational commitment, turnover intentions, and turnover (Aryee, Luk, & Stone, 1998; Netemeyer, Boles, & McMurrian, 1996). For example, employees who experience work-family conflict are prone to frequent absence and, as a result, are less committed to the organization. Therefore, employees who benefit

from an organization's family-responsive policies such as flexible work hours are likely to be more committed to the organization because it minimizes their experience of work-family conflict.

Boles et al. (2001) found that family-work conflict was significantly related to job satisfaction. However, Adams et al. (1996) found that the relationship between family-work conflict and job satisfaction was not significant. Furthermore, Good, Page, & Young (1996) found that work-family conflict (where work interferes with the family or where the family interferes with work) was related to job satisfaction for entry-level retail managers. Work-family conflict also had a direct effect on these entry-level managers' intent to leave, regardless of satisfaction or commitment levels (Good, Page, & Young, 1996). Much of this is due to long hours and low pay. However, having young children at home decreases turnover intentions. This decrease is due to an employee's need for stability in support of his/her family (Lum, Kervin, Clark, Reid, & Sirola, 1998).

As defined by Greenhaus & Beutell (1985) and Netemeyer et al. (1996) work-family conflict is considered to be inter-role conflict in which the role pressures from the work and family domains are incompatible, Netemeyer et al. (1996) further concluded that work-family conflict was different from family-work conflict. Netemeyer et al. (1996) define work-family conflict as a type of inter-role conflict, wherein some responsibilities from the work and family areas are not compatible and negatively influence the employee's family responsibilities. Conversely, they define family-work conflict in the same manner with the exception that conflict exerts its negative influences on work-related responsibilities. However, work-family conflict (WFC) has been considered

the conventional terminology to represent the inter-facet conflict and it is the term used in this study.

In addition to the bi-directional nature of conflict, researchers have begun to consider the different forms of work-family conflict (Greenhaus & Beutell, 1985; Netemeyer, Boles, & McMurrian, 1996). The three different forms of work-family conflict have been defined as time-based conflict, strain-based conflict, and behavior-based conflict. According to Greenhaus & Beutell (1985), time-based conflict occurs when time contributed to one role inhibits from participating in another role, strained-based conflict states that a strained experience in one role intrudes into and intervenes with participation in another role, and behavior-based conflict happens when certain behaviors required in one role are incompatible with behavioral expectation in another role.

Since work-family conflict is recognized bi-directionally, Gutek, Searle, & Klepa (1991) further argued that each of these three forms of work-family conflict should have two directions as well and formed six dimensions of work-family conflict (Figure 1): (1) time-based conflict due to work interfering with family (WIF), (2) timed-based conflict due to family interfering with work (FIW), (3) strain-based conflict due to work interfering with family (WIF), (4) strain-based conflict due to family interfering with work (FIW), (5) behavior-based conflict due to work interfering with family (WIF), and (6) behavior-based conflict due to family interfering with work (FIW).

		Directions of Work-Family Conflict	
		Work Interference with Family	Family Interference with Work
Forms of Work-family Conflict	Time	Time Based Work Interference with Family	Time Based Family Interference with Work
	Strain	Strain Based Work Interference with Family	Strain Based Family Interference with Work
	Behavioral	Behavioral Based Work Interference with Family	Behavioral Based Family Interference with Work

Figure 1: Dimensions of work-family conflict
Source: Carlson, Kacmar, Williams (2000, p. 251)

In the hospitality industry, work-family conflict has been one of the major causes for turnover of both the management level and lower-income employees (Boles & Babin, 1996; Namasivayam & Mount, 2004; Stalcup, 1997). This study is to extend existing work-family conflict literature by examining the relationships of the bi-directional work-family conflict with select variables, role conflict, role ambiguity, work schedule, and compensation in a sample of college and university foodservice managers. The literature suggests these variables have been associated with work-family conflict, especially in the service industry.

Role conflict

According to Spector (1997), "role conflict exists when people experience incompatible demands about their functions and responsibilities (p. 39)." Role conflict and role ambiguity are the two major components of job-related role stresses (C. D. Fisher & Gitelson, 1983; Jackson & Schuler, 1985; Rizzo, House, & Lirtzman, 1970). In addition, role conflict also arises when one's job-related role interferes with his/her family or personal life (Greenhaus & Beutell, 1985). There are discrepancies regarding the impacts on multiple roles. According to Greenberger & O'Neil (1993), involvement

in excessive roles resulted in role strains, role conflicts, and led to negative impacts on mental and physical health. Since time spent on and devoted to activities within one role generally cannot be devoted to activities within another role, some researchers have argued that the increased role obligations that required time devotion and participation may result in various forms of psychological conflict if each role cannot be adequately fulfilled (Bedeian, Burke, & Moffett, 1988; J. Singh, Goolsby, & Rhoads, 1994)

However, according to "enhancement theory", researchers further proved by empirical examination that role accumulation is beneficial for both men and women in terms of buffering, social support, opportunities to experience success, and increasing sources of reference (Barnett & Hyde, 2001). Studies also provided empirical evidence that women who juggle multiple roles are less depressed than other women, employed women are less distressed than non-employed women (Crosby, 1991), and men have multiple roles reported fewer physiological symptoms of distress than men who have fewer roles (Gore & Mangione, 1983). Nevertheless, empirical evidence has also shown that when roles are excessive and numerous, psychological stress may occur (Bekker, deJong, Zijestra, & vanLandeghem, 2000).

Studies also found that role conflict, role ambiguity, and time demands are directly and positively related to work-family conflict (Carlson, Kacmar, & Williams, 2000; Frone, Yardley, & Markel, 1997; Greenhaus, Bedeian, & Mossholder, 1987b). Since the impact of interrole related stress on work is pervasive (C. D. Fisher & Gitelson, 1983; Jackson & Schuler, 1985), and the family role also can lead to interrole conflict, in order to understand the relationship between role conflict and work-family conflict and the

interaction with one another it must be studied within a common framework (Kopelman, Greenhaus, & Connolly, 1983).

Role Ambiguity

As defined by Spector (1997), "role ambiguity is the degree of certainty the employee has about what his or her functions and responsibilities are (p. 39)." According to classical theory, every position in a structured organization should have a specified set of tasks or position responsibilities, role ambiguity is reflected the degree of employees' uncertainty regarding the appropriate actions in performing job functions (Miles, 1976). For example, role ambiguity can occur because employees do not know what he/she has the authority to decide, or he/she is not clear about each others' job performance expectations. Due to uncertain role expectation, employees will hesitate to make decisions and will have to meet the expectations by the trial and error process (Rizzo, House, & Lirtzman, 1970). Therefore, role ambiguity results in the following situation: "…a person will be dissatisfied with his role, will experience anxiety, will distort reality, and will thus perform less effectively (Rizzo, House, & Lirtzman, 1970, p. 151)."

Although role ambiguity, together with role conflict, has been studied extensively in the organization settings and the influence of role ambiguity on job satisfaction has been well established, research on role ambiguity and role conflict in settings other than work environment is fairly new (Boles & Babin, 1996). In addition, studies have suggested that work-related stress as a causal antecedent of work-family conflict (Bedeian, Burke, & Moffett, 1988; Boles & Babin, 1996; Greenhaus & Beutell, 1985). Bedeian et al.'s (1988)

study further supported that "the antecedent conditions in work and family domains may or may not be highly stressful when considered alone, but the stress produced by their joint occurrence is likely to produce strain (p.476)." Thus, considering the limited findings, in order to understand the relationship between work stresses and work-family conflict it is necessary to consider both role conflict and ambiguity in the unity of work-family domain (Greenhaus, Bedeian, & Mossholder, 1987a; Williams & Alliger, 1994).

Work Schedule

It is believed that the amount of time spent at work directly reduced the amount of time available for nonwork activities in terms of time-based strain (Greenhaus & Beutell, 1985; Voydanoff, 1988). Work hour has been one of the important indicators to study work spillover into family life (Greenhaus, Bedeian, & Mossholder, 1987a). Milkie and Peltola (1999) find that work demands such as work hours devoted per week influence role balance. Further research found, in a study of physicians, that greater scheduling flexibility at work is positively associated with well-being (Hecht, 2001).

However, studies also discovered that the number of hours worked do not necessarily translate into feelings of work spillover and that the number of hours worked is not very important in mediating effects on work spillover and life satisfaction (Moen & Yu, 1999; Wallace, 1997). In order to understand work spillover, and further to investigate work-family conflict, it is necessary to study work-related factors of which

hours worked, motivators and pressures are the most relevant variables (Greenhaus, 1988; Wallace, 1997).

According to Greenhaus & Beutell (1985), time-based conflict occurs when the time contributed to one role inhibits from participating in another role; therefore, work extends further and further into what might otherwise be family or social time will likely increase the work-family conflict. For example, people who work long hours are likely to feeling that they are unable to maintain balance in their lives. Moreover, it is even more stressful when people have to sacrifice participating family occasions such as a child's sporting event or a spouse's birthday due to work demands. Time conflict between work and family is considered as the main problem when people juggle both work and family roles (Lo, 2003). Since that employees are gradually recognized a competitive resource (Pfeffer & Ross, 1990), and the consequences of work-family conflict are life dissatisfaction (Boles, Howard, & Donofrio, 2001; Small & Riley, 1990) and intention to quit (Boyar, Maertz, Pearson, & Keough, 2003), the workplace flexibility in terms of work-hour scheduling and the availability of coping with family concerns should be taken into consideration when implementing family-friendly policies. Furthermore, flexible working hours did cause a significant increase in job satisfaction (Orpen, 1981), and work scheduling is the main remedy for balancing work and family activities (Finn, 2000).

Pay Satisfaction

Monetary compensation has been viewed as the core element of the employment exchange between organizations and individuals (Rice, Phillips, & McFarlin, 1990) as that (1) money is an essential fundamental reward in organizations (Rice, Phillips, & McFarlin, 1990), and (2) "pay can be measured more objectively (D. Singh, Fujita, & Norton, 2004, p. 233)". In addition, according to equity theory which states that people perceive fairness by comparing their job contributions and rewards, using available reference source. For example, people compare themselves to one another regarding their contributions and rewards, and evaluate the discrepancies in their salaries within that context (D. Singh, Fujita, & Norton, 2004).

In the field of career commitment and development related research, salary often has been suggested as one of the objective quantitative indicators of career success (Greenhaus, Parasuraman, & Wormley, 1990; Judge, Cable, Boudreau, & Bretz, 1995; Ng, Eby, Sorensen, & Feldman, 2005; Poon, 2004). In addition, the satisfaction of pay also is such an essential variable when studying job satisfaction that researchers have included into their models (e.g. Kim, Price, Mueller, & Watson, 1996; Price, 1997).

A number of studies also suggest that one of the top reasons for employee turnover or intention to leave the current organization is salary and benefits (Ghiselli, La Lopa, & Bai, 2001; Neiderman & Sumner, 2004; Woods & Macaulay, 1989b). Furthermore, salary has been included as a predictor in the studies of life satisfaction and interrole conflict (Berta, 2002; Ghiselli, La Lopa, & Bai, 2001). Although studies have indicated that work-family conflict is significantly related to satisfaction with a job in general

(Carlson & Kacmar, 2000; Howard, Boles, & Donofrio, 2004; Near, Rice, & Hunt, 1980; Yogev & Brett, 1985) there are few articles that propose a relationship between salary and work-family conflict.

The Study of Employee Turnover

Despite well-instituted personnel management practices, there is evidence that a working relationship may be terminated to be desirable to either the employer or employee, and as a result turnover continues to occur. It is evident that turnover may occur voluntarily or involuntarily. Involuntary turnover may occur when the individual is terminated or asked to resign. Instances of this are when an employee no longer performs adequately to the satisfaction of the employer, or violates the organization's policies.

In the case of voluntary turnover, the decision to quit must be that of the employee, not mandated by the employer, and cannot be attributed to an event external to the employee's decision. This research, therefore, is specifically interested in voluntary turnover, which frequently creates disruption in the service delivery system.

The relationship between employee turnover and its consequence has been well documented and reveals, for example, that high employee turnover rates can hurt both organizations and their remaining employees in terms of work performance and job disruption (Price, 1977; Scott et al., 1999). Moreover, considerable research has been devoted to addressing the issue related to employee turnover both empirically and theoretically. For instance, studies have examined the impact and causes of turnover (Birdir, 2002; Hinkin & Tracey, 2000; Simons & Hinkin, 2001), and numerous predictive

and turnover path models and their relationships with various antecedents (Maertz & Griffeth, 2004; Mobley, Griffeth, Hand, & Meglino, 1979; Tett & Meyer, 1993).

Most of the research on turnover has targeted a specific population or groups within the organization or industry, such as retail sales employees (Eisenberger, Stinglhamber, & Vandenberghe, 2002), college faculty (Dee, 2004), physicians at a U.S. Air Force hospital (Kim, Price, Mueller, & Watson, 1996), registered nurses (Cavanagh & Coffin, 1992; M. L. Fisher, Hinson, & Deets, 1994; Lum, Kervin, Clark, Reid, & Sirola, 1998; Price & Mueller, 1981) etc. Table 1 shows the antecedents and populations that were studied regarding "intention to leave" that have been investigated by researchers.

TABLE 1

Summary of the Findings from Diverse Industries Studied for "Intention to Leave"

Author(s) (Publication Date)	**Sample**	**Variables studied related to "Intention to Leave"**
Firth, L., Mellor, D. J., Moore, K. A. & Loquet, L.(2004)	173 salespeople were recruited from the clothing sections of a large department store in Australia.	1. Organizational commitment 2. Job satisfaction 3. Stress 4. Supervisor support 5. Locus of control 6. Self-esteem 7. The perceived stressors in the job 8. Intention to quit
Carbery, R., Garavan T. N., O'Brien F., & McDonnell J. (2003)	The Alumni database of an international hotel management school in Ireland served as the sample frame.	1. Perceived psychological contract breach and felt violation 2. Organizational commitment 3. Career expectations 4. Perceived managerial competencies 5. Job satisfaction 6. Career identity and career satisfaction 7. Demographic and human capital characteristics 8. Organizational characteristics

TABLE 1

Summary of the Findings from Diverse Industries Studied for "Intention to Leave" (Continued)

Author(s) (Publication Date)	**Sample**	**Variables studied related to "Intention to Leave"**
Hellman, C. M. (1997)	A meta-analysis of 50 studies.	1. Job satisfaction 2. Intent to leave 3. Personal/situational factors (ex. One's skill or occupational specialty) 4. Age, tenure 5. Employing organization
Eisenberger, R., Stinglhamber, F., & Vandenberghe, C. (2002)	Three different sets of participants were approached.	1. Three separated studies were conducted 2. Supervisor's perceived organizational status 3. Perceived organizational support 4. Perceived supervisor support 5. Tenure
Tett, R. P. & Meyer, J. P. (1993)	Psychological abstracts from 1968 to the middle of 1992 were searched by computer based on the union of each pair of variables (e.g., "job satisfaction and organizational commitment")	1. Organizational commitment 2. Turnover intention 3. Global versus facet job satisfaction
Dee, J. R. (2004)	The population included all full-time faculty members employed by an urban community college in the southeastern U.S.	1. Faculty turnover intent to leave or to stay 2. Level of faculty autonomy 3. Amount of support for faculty innovation 4. Degree of collegial communication in the college
Good, L. K., Page, T. J. & Young, C. E. (1996)	698 retail managers from a multiunit department store were consisted of the sample.	1. Role ambiguity 2. Role conflict 3. Job satisfaction 4. Work-family conflict 5. Organizational commitment 6. Intent to leave

TABLE 1

Summary of the Findings from Diverse Industries Studied for "Intention to Leave" (Continued)

Author(s) (Publication Date)	**Sample**	**Variables studied related to "Intention to Leave"**
Ghiselli, R. F., La Lopa, J. M., Bai, B. (2001)	From 24 food-service companies which were reported from the *Nation's Restaurant News* "second one hundred." 8 companies had participated in this study.	1. Job satisfaction. 2. Life satisfaction 3. Role conflict 4. Turnover intent

Role Conflict

According to Stryker, S. and Macke, A. S. (1978), the term "role conflict" has been applied to different conceptual process aspects, such as "(1) competing demands arising from different parts of a given role set, (2) conflicting reactions of the same individuals to the same types of behaviors, (3) differences in the expectations of others, and (4) differences between role expectations and individuals' self-concepts (p.72)." This dissertation focuses only on that aspect of role conflict defined by temporal convergences of competing demands arising from different roles, for example, work and family. In another words, role conflicts occurs when demands associated with one role interfere directly with one's ability to satisfy the demands of another role.

Empirical studies on the consequences of role conflict have been conducted in complex organization settings exploring the effect of role conflict on psychological health (Behrman & Perreault, 1984; Boles & Babin, 1996; Dubinsky & Hartley, 1986), work-related attitudes and behavior (Bedeian & Armenakis, 1981; Good, Sisler, & Gentry, 1988; Rizzo, House, & Lirtzman, 1970; Schuler, Aldag, & Brief, 1977). Furthermore, most turnover models have postulated that, role conflict, role ambiguity, and role overload will ultimately relate to the explanation of turnover directly or indirectly (1981).

In different analytical framework, the relationship between role conflict and job-related attitudes and behaviors is inconsistent. Bedeian and Armenakis (1990) and Netemeyer et al. (1981) reported weak causal paths from role conflict to propensity to leave, and Bedeian and Armenakis (1984) further reported the relationship between role conflict and job satisfaction was not significant.

Nevertheless, Behrman & Perreault (1984) presented their findings, regarding the sales representative's role environment and their relationships with job performance and satisfaction, that role conflict is negatively related to satisfaction, but positively related to performance. The researchers further explained that "some aspects of role conflict may be basic to performance of the sales job—even if they potentially reduce the sales rep's job satisfaction. (p. 19)." Furthermore, the study suggested that "role conflict may have an indirect effect on performance and satisfaction through role ambiguity (p. 19)" since conflicting job requirements may increase ambiguity when rep are doing his or her job in the sales situation (Hecht, 2001).

Different variables also have been found to significantly influence role conflict. For example, feelings of role conflict are significantly higher for those with lower family income, and less flexible work schedules also related to experiencing more frequent feelings of role conflict (1997). Although role conflict has been studied on the organizational settings with various work-related attitudes, behavior, and its effect on organizational outcome, there is little study on the direct examination of the relationship between role conflict and intention to leave in the service industry, such as the college and university foodservice segment.

Role Ambiguity

According to Spector (1964), "role ambiguity is the degree of certainty the employee has about what his or functions and responsibilities are (p. 39)." As stated by Kahn, Wolfe, Quinn, Snoek, & Rosenthal (1964) that there are two sources of ambiguity. Objective ambiguity is due to the lack of information needed for role definition and role performance, while subjective ambiguity is associated with the social and psychological aspects of role performance (Woods & Macaulay, 1989b). In the hospitality industry, such as university foodservice, work schedules are designed with different shifts and each shift has its own personnel and management system for the different services provided, and thus, it can increase role ambiguity. Furthermore, because of experiencing a high turnover rate which increased the chance that new hired staff are often exposed to the difficulties of prioritizing tasks and time management (Baroudi, 1985; Bedeian &

Armenakis, 1981; Chang & Hancock, 2003; Good, Sisler, & Gentry, 1988), it may compound role ambiguity.

Numerous studies have indicated that role ambiguity was found to be significantly negatively related to job satisfaction (Baroudi, 1985). However, in the relationship between role ambiguity and intention to leave, different results were found that role ambiguity was the most dysfunctional variables in turnover intentions (Bedeian & Armenakis, 1981; Netemeyer, Johnston, & Burton, 1990), while a couple of studies stated that there was a weak causal relationship between role ambiguity and propensity to leave (Bedeian & Armenakis, 1981; Behrman & Perreault, 1984). In order to further enhance the understanding of the consequences of role conflict and ambiguity for work related attitudes and outcomes, studies also suggested that there are additional factors, such as different work settings, differences in contexts, and tasks that need to be incorporated in future research (Hecht, 2001; Hood & Milazzo, 1984).

Work Schedule

Studies on the impact of shiftwork on personal/family life have demonstrated the disruptive influence on physical and mental health problems (Schulz, Bigoness, & Gagnon, 1987). In most organizational settings, hours worked, especially during weekends and weeknights, have been found to be significantly correlated with turnover intentions and provided the explanation of a large percentage of the variance in intention to leave (Almer & Kaplan, 2000; Orpen, 1981; Woods & Macaulay, 1989b)

The relationship between work scheduling and the work related outcomes, such as unfavorable turnover has been one of the major concerned subjects when the human resource personnel is considering the employee retention program (Schulz, Bigoness, & Gagnon, 1987). However, controversial findings are provided when studied in different work settings and environment. A study that examined the determinants of turnover intention among retail pharmacists found that hours worked per week and the number of weeknight and weekend hours worked was significantly positively correlated with turnover intention (Schulz, Bigoness, & Gagnon, 1987). Furthermore, weekend and weeknight hours worked, along with job satisfaction, were found to have direct linkages with turnover intentions (Jamal, 1981). The same implication that shiftwork was related to withdrawal behavior was found in the study of nurses and industrial workers (1985). In the hospitality industry, which has a notorious history of long hours and low pay, has different assessments regarding the influence of working hours and shifts. In Kazeroonis' (1985) study, it was found that there was no significant relationship between job satisfaction and hours worked per week. Furthermore, it stated that those managers who worked more than 50 hours per week were not significantly more likely to consider leaving their jobs than were those who worked 50 or fewer hours per week (2001). A contrary statement was provide in Ghiselli et al.'s (2001) study that managers, especially the general managers, were suffering an imbalance between their job and their personal lives and planning to leave the industry (Berta, 2002; Ghiselli, La Lopa, & Bai, 2001; Hood & Milazzo, 1984; Jamal, 1981; Schulz, Bigoness, & Gagnon, 1987). In college and university foodservice, the majority of employees, on 9-month appointments, are off May to mid-August; however, facing the fact that summer weddings and other year-end

departmental banquets are a significant revenue source, campus catering managers end up with smaller foodservice staff and anticipate stress more during summer. Furthermore, college foodservice management has to bear the pain that a certain number of post-vacation no-shows are expected each year (Sheridan, 2003).

In order to cope with the balance between work and family demands, which hopefully can increase employee retention, work scheduling is an important agenda to ensure positive job attitudes.

Pay Satisfaction

Approximately sixty percent of workers have been found to be dissatisfied with their pay in manufacturing and service organizations (Leonard, 2001). Approximately twenty-five percent of the employees would change their jobs for a ten percent pay increase and more than fifty percent would change for a twenty percent pay increase (Joinson, 1999). Pay satisfaction is assumed to be predictive of absenteeism and turnover (Cotton & Tuttle, 1986; Guthrie, 2000; Lum, Kervin, Clark, Reid, & Sirola, 1998). Pay satisfaction is negatively related to turnover intent (Lum, Kervin, Clark, Reid, & Sirola, 1998). A number of studies have included pay satisfaction as a component of job satisfaction (Lum, Kervin, Clark, Reid, & Sirola, 1998). Allen, Drevs, and Ruhe (1999) found that one of the top three reasons employees leave their organizations is the opportunity for higher pay at another organization. Pay dissatisfaction often leads to decreased motivation, morale, and work quality (Leonard, 2001). Pay satisfaction has been identified as a determinant to job satisfaction, organizational commitment and

behavioral intentions to leave the organization (Lum, Kervin, Clark, Reid, & Sirola, 1998).

Pay is often used in organizations to motivate employees (Lum, Kervin, Clark, Reid, & Sirola, 1998). Employees view it as an important reward or outcome. Consequences of pay dissatisfaction include negative employee behaviors (Lum, Kervin, Clark, Reid, & Sirola, 1998). Such behaviors are turnover, absenteeism, willingness to strike, and lowered job performance. In the lodging industry, Woods, Heck, and Sciarini (1998) found that rate of pay was the top reason of the most important internal causes of turnover. In addition, the major cause of the most important external causes of turnover was 'better pay elsewhere' (Woods, Heck, & Sciarini, 1998).

Intention to Leave

Fishbein and Ajzen (1975) proposed a turnover model based on the theory of planned behaviors. Fishbein and Ajzen postulated that the belief an individual may have is related to the person's attitude, and would finally lead to a specific action. Mitchell, Holtom, Lee, Sablynski, and Ere (2001) agreed that the Fishbein and Ajzen attitude model was based on the premise that "employees' behaviors could be influenced by the extent to which other people expected them to behave in a certain manner, and is further reinforced by personal motivation on the person's part to comply with such expectations. (p. 9)."

Due to the difficulty of predicting actual turnover before it occurs, the best alternative would be to measure variables that consistently and immediately precede

voluntary turnover, such as the employees' intention to quit (Lambert, Hogan, & Barton, 2001). Spencer, Steers and Mowday (1983) agreed that the Fishbein and Ajzen (1975) attitude theory might have a superior ability to predict turnover, compared to several other models. Richer, Blanchard and Vallerand (2002) whose study was based on a motivational theory also confirmed that over time, turnover intentions translate into actual turnover behavior. Empirical evidence was also provided by the Saratoga Institute that compared an employee's initial dissatisfaction with responses to a post-exit survey (Branham, 2005). The results showed that "…the nineteen reasons for leaving… were identical to the reasons for initial dissatisfaction and in the same order from top to bottom! (p. 24)"

The additional reasons for using intention to leave attitudes rather than actual behavior are that it is relatively less expensive to collect data on turnover intentions than actual turnover, and since the use of an prediction on the level of individuals creates the problem of tracking temporary disparate leaving episodes (Bluedorn, 1982). Further, as stated by Branham (2005), by using intention to leave attitudes as measures, the employers create "…a built-in period of 'rescue time' during which they have the opportunity to identify the employee's dissatisfaction and try to correct it. (P. 24)." Therefore, based on the aforementioned reasons, this research utilized intention to leave instead of actual turnover as the consequent variable in this study.

Work-Family Conflict and Intention to Leave

There is a consensus in the literature regarding the way work-family conflict considerations affect turnover intention either directly or moderating; however, few turnover models have addressed work-family conflict as an important factor in the turnover process (Howard, Donofrio, & Boles, 2004; Linden, 1985). A perspective offered by Sussman and Cogswell (1971) stated that there is a non-economic factor in job movement in which the greater the demand for workers in any occupational system the greater the consideration given to familial concerns such as work aspirations of spouses, special needs of children, community activities, links with relatives and friends, and so on. In other words, individuals will take the job which is offering the available pay when it is situated in a market of few options, while a worker will take those non-monetary factors into consideration relevant to his/her situation and personality when s/he enjoys great demand for his/her services. In addition, according to Becker's (1985, 1991) human capital theory, which postulates that due to the limitations to one's time and energy, employees have to economize between work and family. Therefore, it is important to pay attention to the likely effects of family factors on the leaving process when studying the immediate precursor of turnover. The analysis of the relationship between work-family conflict and intention to leave needs to take the effect of the families constitute on personal decision making and the work-relevant variables in that particular industry into consideration.

Regardless of applying various turnover models and different theoretical orientations, intention to quit and absenteeism have been linked to work-family conflict,

and several studies have revealed a significant relationship between work-family conflict and intention to leave. Good, Page, and Young (1996) found a direct relationship between work-family conflict and intention to leave among entry-level retail managers but not the upper-level group. In addition, Good et al. (1988) reported that although the relationship between work-family conflict and intention to leave was positive, it was quite weak. In addition, Boyar et al. (2003) further examined the effect of work-family conflict and family-work conflict on turnover intentions separately and found that both were significant in predicting turnover intentions.

Furthermore, in most psychologically-oriented turnover models, various family-related factors are found related to intention to leave (Lee & Maurer, 1999). For example, Stroh, Brett, & Reilly (1996) studied the effects of sex, family structure and the "glass ceiling" on intention to leave and subsequent leaving, and found that sex, children at home, and the interaction of sex and glass ceiling were significant predictors of intention to leave. Similarly, Lee and Maurer (1999) suggested that the family characteristics of having a spouse, and having an employed spouse and an increasing number of children living at home are important to the leaving process. Moreover, Steers and Mowday (1981) posited that "non-work influences" interact with job attitudes to affect intention to leave. In addition, Mobley et al. (1979) stated that "family responsibilities" affect individual values, which in turn affect intentions to search the job opportunities and quit. Therefore, previous turnover research which emphasized different family characteristics and different sets of antecedent make it difficult to generate a coherent set of family characteristics that are most relevant to quitting and how they might operate.

Employee Turnover in the Hospitality Industry

In order to explain and prevent undesired employee turnover "…theorists have sought to explain factors that predict turnover" (Hellman, 1997, p. 682). According to Fishbein and Ajzen (1975), the role of intentions is emphasized to understand the link between attitudes and behavior. They further stated that "…the best single predictor of an individual's behavior will be a measure of his intention to perform that behavior (p.369). Other researchers also found that behavioral intention is an important precursor of behavior (Dee, 2004; Hellman, 1997; Mobley, Griffeth, Hand, & Meglino, 1979). Mitchell et al. (2001) further stated that "job attitudes combined with job alternatives predict intent to leave, which is the direct antecedent to turnover (p. 1110)."

However, since most of the studies are situation-specific and varied in theoretical formulations conceptualizing alternatives differently or emphasizing different facets of intention to leave (Griffeth & Hom, 1988), there is no single study that offers findings or explanations which are generalizable to all industries; therefore, the scope of the constituent elements of the turnover process needs to be identified with and as it applies to a specific group, population, or industry.

The research has been conducted under all kinds of different business domains. However, according to Woods and Macaulay (1989b), "…the few studies of turnover in other industries may not apply to the hospitality industry (p.81)." Furthermore, there are some findings in the study of hospitality industry that contradict the conventional assumptions, for instance, unstable working hours are not necessarily negatively related

to job satisfaction (Harbourne, 1995). In Table 2, the findings and causes of turnover showed the diversity and dimensions of investigations in the hospitality industry.

TABLE 2

Summary of Findings from the Hospitality Industry Studied for "Employee Turnover"

Author(s) (Publication Date)	**Variables related to "Turnover in Hospitality"**	**Major Findings**
Woods & Macaulay (1989b)	1. External influences (unemployment rates, new job opportunities). 2. Quality of supervision. 3. Pay and benefit packages 4. Working conditions 5. Quality of co-workers 6. Overall job satisfaction 7. Fitness of the organizational culture	1. Irregular hours characterize as an attraction in hospitality industry while feathering a major cause for turning in other industries. 2. External influences, such as unemployment rates, new job opportunities, did not affect turnover rates seriously. However, it was one of the major causes of high turnover rates in hospitality field. 3. Both employees and managers mentioned that quality of supervision was an important cause of turnover in all hospitality companies that had been surveyed.
Stalcup (1997)	1. Advancement related issues 2. Organizational culture 3. Work-private life conflict/Job characteristics 4. Lower paid replacement 5. Personality conflicts 6. Lacking the knowledge, skills, and abilities.	1. There are some discrepancies in the results between survey and responses regarding to the issues of "the most cited causes". 2. In both surveys and the interviews, career and financial advancement issues appear to be the most important causes of management turnover in hotels. 3. "Organizational culture" and "work-private life conflict" are the next two most important groups of causes.

TABLE 2

Summary of Findings from the Hospitality Industry Studied for "Employee Turnover" (continued)

Author(s) (Publication Date)	**Variables related to "Turnover in Hospitality"**	**Major Findings**
Iverson & Deery(1997)	1. Structural variables: related to the work setting-both organizational and job-related factors 2. Pre-entry variables: personality traits of positive and negative affectivity 3. Environment variables: ex. Job opportunity, and kinship responsibility 4. Union variables	1. The hospitality industry has created and reinforcement a turnover culture. 2. The commitment between employees and both the organization and union creates a low turnover rates. 3. The personality trait of negative affectivity was found to be a significant predictor of intent to leave.
Barron & Maxwell (1993)	1. Career opportunities 2. The poor working conditions for unskilled staff 3. The availability of training provided 4. The availability of financial rewards 5. The condition of putting profit ahead of employees 6. Total dedication required 7. If effort outweighs rewards	1. Most students, both new and those who had recently returned from their period of supervised work experience identify the industry as one of growth industry with many career opportunities. 2. Overall, the post-placement students have a negative image of the industry. 3. The post-placement students recognize that the industry is a poor employer, typically offers little or no training to its employees, and places profit before employees.

TABLE 2

Summary of Findings from the Hospitality Industry Studied for "Employee Turnover" (continued)

Author(s) (Publication Date)	**Variables related to "Turnover in Hospitality"**	**Major Findings**
Hinkin & Tracey (2000)	1. Five major categories were developed for the cost of separation, recruitment, selection, hiring, and productivity loss. 2. Each category is consisted of several cost formulas.	1. The finding suggests the costs associated with turnover are much higher than previous estimates, for example, front-office associate positions are alleviated from $2,500 to $5,688. 2. The direct and easily measurable costs account for less than half of the total costs associated with turnover. 3. To be competitive, hotels should try to solidify supervisors' retention and development. 4. A hotel could increase its labor rates but reduce overall labor costs if it could attract and retain employees who are capable of providing excellent service.
Harbourne (1995)	Study discussed that how staff turnover, loyalty, job satisfaction, pay and perks, and staff development of the industry were presented to the outside world.	1. Within the industry, job satisfaction is high, most companies have a loyal and happy workforce and there are few causes for complaint. 2. 35% of hotel managers didn't seem too bothered about working more than 60 hours per week. 3. Promotion is a concern expressed by most of the employees except managers who are broadly satisfied with promotion prospects. 4. Female staff and people over 40 provide a more settled and loyal workforce in hotels.

TABLE 2

Summary of Findings from the Hospitality Industry Studied for "Employee Turnover" (continued)

Author(s) (Publication Date)	**Variables related to "Turnover in Hospitality"**	**Major Findings**
Birdir (2002)	1. Demographic profile was provided, such as age, gender, marital status, and years of working experience. 2. Hotel information was provided, such as room capacity, and Number of employees.	1. 32% of the GMs had around five years management experience, while 67% had ten years experience in management. 2. GMs had changed properties approximately every 3 years. 3. Management-owner conflict is a major cause of GM turnover. 4. Career movement is the second most cited reason for turnover. 5. Hotels employed a new GM every 2.5 years on average.
Hartman & Yrle (1996)	Job satisfaction facet: work, pay, coworkers, promotion, supervision, and total "action tendency measure.	1. An important reason for leaving concerns the opportunity of career movement. 2. Employee perceptions of promotion opportunities should be separated from promotion fairness needs to be re-evaluated in current job satisfaction measures. 3. Employees might leave because of an orientation towards a hotel career rather than towards a specific property. 4. Employees have an inclination towards change rather than towards stable careers.

After reviewing the existing literature and examining the voids in the literature, there are several variables that influence employee turnover and turnover intentions in the hospitality industry. Specifically, job related stresses due to role conflict and role ambiguity, work-family conflict, family-work conflict, salary, and work schedule are all

related to turnover or turnover intentions. The purpose of this study is to investigate the relationship between these variables in college and university foodservice managers. The selected variables have been previously studied in the hospitality industry but not simultaneously in a single study, specifically for foodservice managers in the college and university settings.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to identify the methodology employed to carry out the research process. Components of the methodology used include the research design, research questions, subjects and sampling plan, instrument, validity and reliability, data collection techniques, data analyses, and limitations.

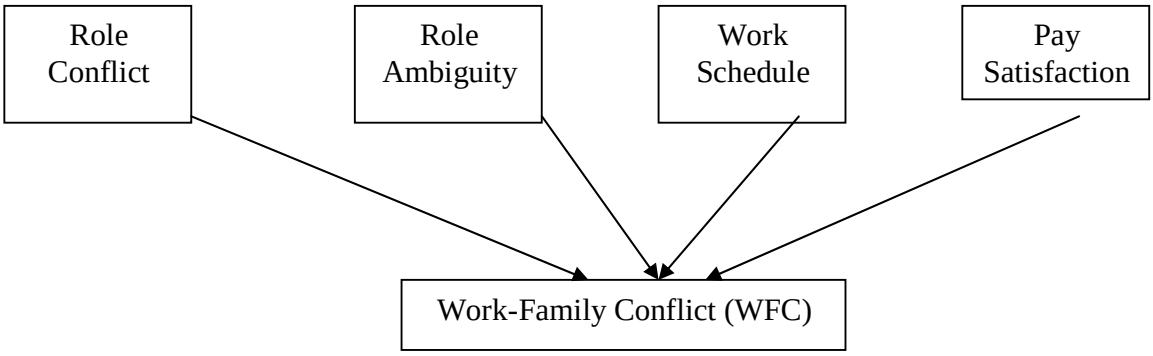
Research Design

This study utilized a quantitative approach and a cross-sectional survey research design to answer the proposed research questions. This study employed a questionnaire (Appendix A) developed based on previous research to collect the desired information. Data was collected to answer the research questions and provide information on demographic characteristics.

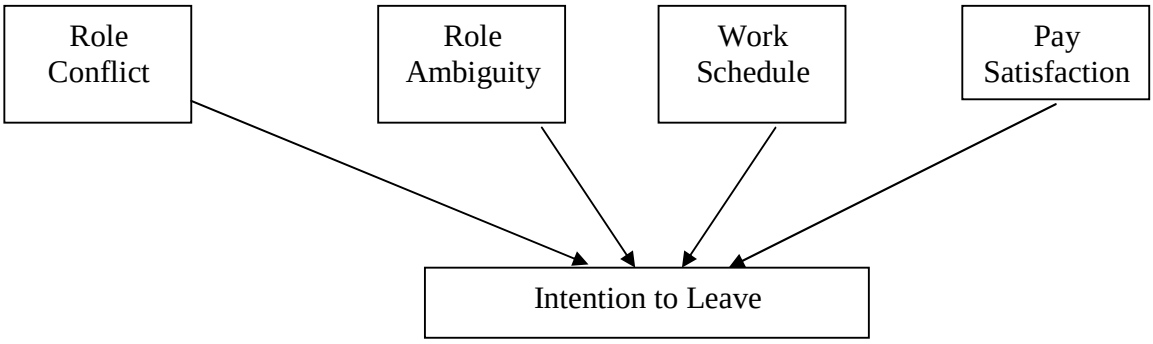
Research Model

This study was carried out using a three-stage approach and cross-sectional survey research design to answer the proposed research questions.

Stage 1.



Stage 2.



Stage 3.

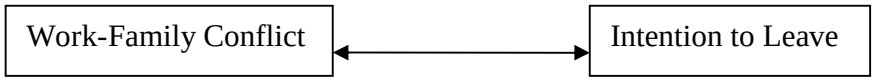


Figure 2

Population and Sample

The population for this study was college and university foodservice managers. A convenience sample was accessed to fulfill the study. The sample consisted of the individuals who were listed as members of the National Association of College and University Food Services (NACUFS) as of August 2006. Their positions include various types of managerial roles as general manager, director, assistant director, foodservice manager, purchasing manager, and so on. This is considered to be well represented across job classifications and can serve the research purpose regarding the characteristics of the target population's organizational role.

The researcher obtained a complete spreadsheet-format list of names, positions, institutions, postal mailing addresses, and email address of the members from the NACUFS National office. From the NACUFS national office the sample of this study consisted of two-thousand-eight-hundred-seventy-five NACUFS members (N=2875).

Instrument

This research used a self-administrated questionnaire disseminated by email/web-based and postal mail forms to measure the specified variables as well as certain items to obtain demographic information. The data-collection instrument consisted of five-parts. The relevant literature and survey instruments developed by past researchers provided the basis for establishing the questionnaire for this study. To assess the appropriateness, practicability, clarity, and reliability of the questionnaire, a pilot

study was conducted (N=22). The questionnaires were distributed to university dining managers, supervisors, and assistant managers in Residential Life, at Oklahoma State University. In addition, to detect potential bias in the instructions or contents of the instrument, the questionnaire was distributed and verified by five hospitality education faculty members, who specialized in the areas of food service, hospitality management, human resources, and research methods.

The questionnaire was organized in four sections. Section one has twenty-three questions that were related to Work-Family Conflict (WFC) and salary. The nineteen WFC related questions were adapted from Carlson, D. S., Kacmar, K. M. & Williams, L. J.'s study (2000) and were modified for the current research. The questions were using a seven-point Likert scale where 1 is "strongly disagree" and 7 is "strongly agree". Furthermore, Spector's (1997) four salary-related items were chosen since that instrument with Coefficient alpha 0.75 embraces various satisfaction levels toward levels of pay.

Section two was to identify employees' intention to leave or stay the current job/organization. Four items adapted and revised from Mitchel (1981). A sample question will be asked like "I would turn down a job offer from another company if it came tomorrow." The questions that were asked in this section were measured using a seven-point Likert scale where 1 is "strongly disagree" and 7 is "strongly agree".

Section three contains 14 questions that assessed the inter-role conflict construct. The attributes adapted from Rizzo, J. R., House, R. J. & Lirtzman, S. I. (1970) were related to both Work-Family and Family-Work. These items have been extensively used in management and organizational research (Bedeian & Armenakis, 1981; Bedeian,

Burke, & Moffett, 1988; Boles & Babin, 1996) and have been examined by Schuler, Aldag, and Brief (1977) through studying the factor structure of these 14 items across six samples and suggesting that "continued use of role conflict and role ambiguity scales appears to be warranted. (p. 111)" The questions were measured by using a seven-point Likert scale where 1 is "strongly disagree" and 7 is "strongly agree".

Section four was designed to collect information regarding respondents' demographic characteristics. Most items were measured using nominal scale and interval scales, such as gender, marital status, age, length of working experience in current job and food industry, and so on. These variables were used to determine characteristics of the sample group.

In conclusion, much of the methodology was based upon the procedures of previous researchers who have studied these same variables. This study combined many of the existing instruments to form a new instrument.

Validity and Reliability

Validity is the degree to which a test, a scale, or set of measures accurately measures what it was intended to measure (Hair, Anderson, Tatham, & Black, 1998). Two validity checks were performed to ensure the appropriateness of the instrument in this study: content validity and construct validity. Content validity is the degree to which a test reflects the intended content area being measured (Churchill, 2001). The key to content validity lies in the procedures that are used to form the instrument (Churchill, 2001). In this study, content validity is established by the in-depth review of literature and the

adaptation of survey instruments. Furthermore, the instrument was examined by a panel of experts which is consisted of hotel departmental directors and faculty members in the field of hospitality and human resource management.

Content Validity

In order to ensure the content validity of the questionnaire, the in-depth reviews of literature in the work-family conflict, role conflict and role ambiguity, work scheduling in food service operations, intention to leave the job, and salary were conducted to determine the attributes for the instrument. Furthermore, a content validity check was conducted among a convenience sample of six university dining managers in Residential Life at Oklahoma State University to support the research effort by providing usable data and constructive feedback. The goal of validity check was to test if the respondents had any difficulty understanding the purpose of the study or the directions of the questionnaire as it was presented to them.

The researcher called each respondent to discuss whether the survey questions were phrased such that it could capture the attitudes and perceptions of the food service managers. The direct feedback from the participants permitted the researcher to ensure a high degree of face validity for the survey documents. Furthermore, a pilot study (N=22) of this revised questionnaire was conducted among local university management staff, excluding those six dining managers, to test the usefulness and clarity of the questionnaires. As a result, final revisions of the questionnaire were made according to

the feedback of a panel of experts who were campus dining professionals in the local community.

Construct Validity

Construct validity refers to the extent to which a study, test, or manipulation measures adequately assess the theoretical concept it purports to assess (Gay, Mills, & Airasian, 2006). Construct validity is the most important form of validity because it asks the fundamental validity question: What does this test really measure? Gay, Mills, & Airasian (2006) pointed out that since that all variables derived from constructs which are nonobservable traits, such as intelligence, anxiety, honesty, and ethics, were "invented" to explain behavior, researchers should be careful when leaping from the public, observable, physical world of operational definitions to the private, unobservable, mental world of constructs. Researchers typically establish construct validity by correlating each item in an instrument with other items that should theoretically be associated with it (convergent validity) or vary independently of it (discriminant validity).

Validation is the process of accumulating empirical evidence that supports the specified theoretical relationships and the appropriateness of the inferences that are made of participant responses for specified assessment uses (Carmines & Zeller, p. 23). The instrument used in this study included operational variables and was adapted from established existing measures that have been applied and validated in several studies. In addition, the items proved to be relative to the theoretical constructs of college and university foodservice managers' attitude, behavior, and perception toward work-family

conflict, role conflict and role ambiguity, pay satisfaction, work scheduling, and intention to leave, which were developed by an in-depth analysis of relevant literature and a panel of experts interview.

Reliability

Reliability is the degree to which a test consistently measures whatever it is measuring (Gay, Mills, & Airasian, 2006). It is an assessment of the degree of consistency between multiple measurements of a variable, and the Cronbach's coefficient alpha, a commonly used measure of reliability, is applied to measure the internal consistency between the items in summated scales (Hair, Anderson, Tatham, & Black, 1998). The more reliable a test is, the more confidence the researcher can have that the scores obtained from the test are essentially the same scores that would be obtained if the test were re-conducted to the same test takers.

A reliability analysis of Cronbach's alpha was performed to test the reliability and internal consistency of work-family conflict, role conflict, role ambiguity, pay satisfaction, and intention to leave. The results of the pilot test showed that the scales were internally reliable: alpha = .9 for work-family conflict, alpha = .812 for pay satisfaction, alpha = .702 for role conflict, alpha = .726 for role ambiguity, and alpha = .947 for intention to leave. The alpha values exceeded the minimum standard (.60) suggested by Hair et al. (1998).

Data Collection Techniques

The sample used in this study was individuals listed as members in the official directory of National Association of College and University Food Services (NACUFS) as of May 2006. By conducting a census as a form of data collection strategy it allowed the questionnaire to be sent to every person in the sample selected (N=2,875). Permission to conduct this study was obtained from the Oklahoma State University Institutional Review Board (IRB) (Appendix B).

This research employed a mixed methodology that included both web-based/e-mail and mail survey methodologies. The main reason one may want to use a mixed-mode method for surveys is that developing technologies may not be available for all subjects of a population or sample, therefore, eliminating the chance for their participation (Cobanoglu, 2001). Dillman (1999) stated that with the development of the Internet, the biggest concern in using email or web-based surveys is that not all members of the population have access to email and to the World Wide Web. Cobanoglu, Warde, and Moreo (2001), Dillman (1999), and Dillman and Tarnai (1988) demonstrate that the web-based survey method usually yields higher response rate and faster response as well as incurs lower cost in comparison with telephone, fax, mail, and personal visit survey methods. Furthermore, Couper, Traugott, and Lamias (2001) indicated that visual elements, such as graphics, color, typography, and animation, have significant effects on respondents' answers, particular in the context of self-administrated web survey. Means and standard deviations were conducted and compared between the results of using

web-based and mailed questionnaires. The results demonstrated that there was little discrepancy between these two methods.

A total of 2,567 questionnaires were electronically sent to the sample who had an email address after the removal of 308 entries that did not include an email address. Each subject was sent an email invitation including a hot link (http://FreeOnlineSurveys.com/rendersurvey.asp?sid=0tb4xaprv9no3u9184004) from the researcher explaining the project and asking the respondent to go to a survey web site automatically. The researcher conducted a self-administrated mail survey with postal addresses to reach respondents whose email addresses were not available on the list. A questionnaire for mail survey was created in the exact format of the web-based survey in order to obtain consistent responses from both surveys. There were no identity questions in the survey in order to protect the anonymity of the respondents.

For both mail and email surveys, follow-up procedures were planned to increase response rate. For the e-mail process, the initial questionnaire was sent out via email on May 24, 2006, and the follow up survey was distributed using email on June 8, 2006. Since there were no identifications on the returned email questionnaires, all subjects received a follow-up letter. For the mailed survey, the researcher used a code-posted and postage provided return envelope for following up for nonrespondents. When the respondents completed the questionnaire and mailed it back in the postage provided envelope, it helped the researcher to identify who had returned the questionnaires. However, the researcher was unable to match a code-posted envelope with one questionnaire because no identification number appeared on one questionnaire. The mail

survey was sent to the respondents on May 26, 2006, and the follow up survey was mailed on June 16, 2006.

This research employed a monetary incentive strategy to increase the response rate. The researcher stated in the cover letter (Appendix C) that in order to show the researcher's appreciation for participants' effort and time on this research, their responses would be entered in a cash reward drawing. There were 297 respondents, out of 377 returned web-based surveys, agreed and provided their names and e-mail addresses for the purposes of this drawing. In addition, there were 54 replies, out of 65 returned mail surveys, also agreed to participate in the cash drawing. There were one winner for $100 and three winners for $50.

Data Analyses

The data collected were entered into computer and analyzed using the Statistical Package for Social Sciences version 14.0 (SPSS, 2006). Standard statistical procedures, including descriptive and inferential statistics, such as frequency, means, standard deviation, Chi square test, Independent Sample t-test, factor analysis, One-Way Analysis of Variances (ANOVA), and Multiple Regression Analysis were used to analyze the data.

Descriptive Analysis

The descriptive statistics were used to describe the college and university foodservice managers' work experience in the college and university foodservice industry

in terms of years of working in the current organization, years of working in the college and university foodservice industry in general, and the current job position. In addition, demographic information, such as gender, age, martial status, the educational level, and the income level, was tabulated using frequency and percentages. In addition, in order to describe the data, means and standard deviations were calculated for each variable.

Factor Analysis

Exploratory factor analysis with VARIMAX rotation was conducted to reveal the underlying dimensions of the WFC, inter-role conflicts, salary, and intention to leave. The criterion for significance of factor loading in this study was based on practical and statistical significance. Factor loadings of ± .40 were considered significant based on the power of .80 at a significant level of $p \leq .05$ with the minimum sample sizes of 200 (Hair, Anderson, Tatham, & Black, 1998). In addition, all factors with eigenvalues greater than 1.0 were retained because they account for the variance of at least a single variable (Hair, Anderson, Tatham, & Black, 1998).

Analysis of Variance

One Way Analysis of Variance was used to determine the mean differences in the perceived WFC, inter-role conflicts, salary, and intention to leave across college and university foodservice managers with different demographics profiles. A post hoc test

was conducted to identify the mean differences after the statistical tests for main effects which showed an overall significant difference.

Multiple Regression Analysis

In this study, multiple regression procedures were used to answer the study questions, "what is the most influential factor among the college and university foodservice managers' WFC", and "what is the most influential factor among the college and university foodservice managers' intention to leave the current job/organization". The Multiple Regression was an appropriate statistical technique when both the dependent variable (WFC and intention to leave) and the independent variables (role conflict, role ambiguity, work schedule, and salary) were used metric (Hair et al, 1998).

CHAPTER IV

RESULTS AND DISCUSSIONS

The purpose of this study was to determine if there were relationships between pay satisfaction, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave, in the college and university foodservice industry. The results were intended to be used to garner a better understanding of what relationship, if any, exists between salary, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave. The research questions for this study were:

- What is the relationship between salary, work scheduling, role conflict, role ambiguity and work-family conflict among the college and university foodservice managers?
- What is the relationship between salary, work scheduling, role conflict, role ambiguity and intention to leave the current organization among the college and university foodservice managers?
- Is there a relationship between work-family conflict and intention to leave the current organization among the college and university foodservice managers?

Response Rate

The sample in the study was composed of members listed in the official directory of the National Association of College and University Food Services (NACUFS) (N=2,875). For subjects who had email addresses were sent an email invitation including a hot link http://FreeOnlineSurveys.com/rendersurvey.asp?sid=0tb4xaprv9no3u9184004 to complete the survey. For those who did not provide email addresses on the list, the researcher planned to conduct a self-administrated mail survey with postal addresses to reach them. A questionnaire for mail survey was created exactly in the format as the web-based survey in order to obtain consistent responses from both surveys.

Table 3 provides a summary of the response rate. For the web-based survey, the initial questionnaire was sent out via email on May 24, 2006, and the follow up survey was distributed using email on June 8, 2006. For the mail survey, the initial survey was sent to the sample on May 26, 2006, and the follow up survey was conducted on June 16, 2006.

A total of 2,875 surveys were distributed to the member of the National Association of College and University Food Services (NACUFS). Of this, 2,567 surveys were sent via email and invited to visit the website (http://FreeOnlineSurveys.com/rendersurvey.asp?sid=0tb4xaprv9no3u9184004) and 308 surveys were sent via postal mail. Table 3 shows raw and adjusted response rates for both survey methodologies. Of the 2,567 survey sent via email, 298 (11.6%) were undeliverable due to wrong email addresses or a system blocker, there were 4 (1.3%) returned mail surveys to the researcher due to “no such receiver” or “person not found”.

For the web-based methodology, the blocker did not allow the intended recipients to receive emails from outside their institution. This yielded an effective sample size of 2,269 for the web-based survey method and 304 for the mail survey method. There were 392 web-based and 65 postal mailed survey returned. This resulted a 15.2% raw response rate and 17.3% net effective response rate for the web-based method, and a 21.1% raw response rate and 21.4% effective response rate for the mail survey method. Of those returned, there were a total of 15 unusable surveys, blank and incomplete, from the web-based method, and all surveys were usable from the mail method. Those unusable responses were discarded before data analysis. This yielded 377 (16.6%) surveys for the web-based method and 65 (21.4%) surveys for the mail method, for a total of 442 (17.2%) usable responses and further resulted a net response rate of 15.4% (n=442) combined from both survey methods.

TABLE 3

Response Rate

	Web-based survey	Mail survey	Total
Total number of surveys	2,567	308	2,875
Number not deliverable	298	4	302
Percent not deliverable[1]	11.6%	1.3%	10.5%
Effective sample size[2]	2,269	304	2,573
Surveys returned	392	65	457
Raw response rate[3]	15.2%	21.1%	15.9%
Net effective response rate[4]	17.3%	21.4%	17.8%
Number unusable	15	0	15
Net number usable	377	65	442
Usable response rate[5]	16.6%	21.4%	17.2%
Net response rate[6]	14.7%	21.1%	15.4%

Notes 1: Number of not deliverable/ Total number of surveys
2: Total number of surveys minus Number not deliverable
3: Surveys returned/ Total number of surveys
4: Survey returned/ Effective size
5: Net number usable/ Effective size
6: Net number usable/ Total number of surveys

The Characteristics of Sample

The sample of this study consisted of two-thousand-eight-hundred-seventy-five NACUFS members (N=2875). Among these members, 58% were male and 43% were female. The citizenship/nationality makeup of the sample showed that the majority was American 95% with about 4% Canadian, and the rest 1% of the sample consisted of Australian, Mexican, New Zealander, and Chinese. In addition, according to self-reported functional occupation titles, managers made up approximately 33%, directors comprised 17%, assistant directors 11%, chefs 7%, catering managers 6%, associate directors 6%, food service directors 6%, auxiliary directors 2%, purchasing directors 1%, retail managers 2%, supervisors 2%, operation directors 2%, finance management directors 1%, dietitian 1%, vending managers 1%, vice president and president 1% and deans 1%.

Profile of Respondents

Demographic Profile of Respondents

A total of 442 questionnaires were usable and analyzed. Table 4 provides a summary of the respondents' demographic profile. Of the respondents 50.9% were male, while 49.1% were female. The majority of the respondents were aged between 35 and 54 (75.4%), with college education (74.5%) including 2-year and 4-year college, and 17.1% of the respondents with master and doctorate degree education. Approximately 32% of the respondents had 2 children for care-giving responsibilities followed by 21.1% and

13.7% for 1 and 3 numbers of children of care-giving responsibilities, respectively. Moreover, nearly 30% of the respondents did not have any care-giving responsibility for kids. As for elder relatives, 12.3% of the respondents had 1 elder relative needed to take care of, and 8.6% of the respondents had 2 elder relatives need for care-giving, while the majority (77.5%) did not have any care-giving responsibility for their elder relatives. The majority of the respondents were Caucasian/White (94.4%). The remaining ethnicity groups only accounted for a minority of respondents, African American/Black (3.1%), Hispanic/Latino (1.4%), American Indian/Alaskan Native (0.5%), and Asian (0.7%). Over half of the respondents' annual household income ranged from $50,001 to over $80,000 (58.1%).

TABLE 4

Demographic Profile of Respondents

	F	Valid %		F	Valid %
Gender			**Age**		
Male	225	50.9	Under 24	4	.9
Female	217	49.1	25-34	33	7.7
			35-44	136	31.5
			45-54	189	43.9
			55-64	65	15.1
			65 and above	4	.9
Marital Status			**Ethnicity**		
Single	59	13.3	African American/Black	13	3.1
Married	334	75.6	American Indian/ Alaskan Native	2	.5
Separated	5	1.1	Asian	3	.7
Divorced	44	10.0	Caucasian/White	402	94.4
			Hispanic/Latino	6	1.4
Education			**Number of Children for Care-giving Responsibilities**		
High school	32	7,5	0	120	29.8
Two year college	85	20.0	1	85	21.1
Four year college	232	54.5	2	127	31.6
Master degree	64	15.0	3	55	13.7
Doctorate degree	9	2.1	4	8	2.0
Unwilling to answer	4	.9	5	7	1.7
Current Annual Income			**Number of Elder Relatives for Care-giving Responsibilities**		
Less than $30,000	11	2.6	0	314	77.5
$30,000 to $40,000	65	15.2	1	50	12.3
$40,001 to $50,000	103	24.1	2	35	8.6
$50,001 to $60,000	77	18	3	2	.5
$60,001 to $70,000	48	11.2	4	2	.5
$70,001 to $80,000	51	11.9	5	2	.5
Over $80,000	60	14.1			
Unwilling to answer	12	2.8			

Note: n=442; Valid % - Based only the cases who actually answered a question

Respondents' Job-related Profile

Table 5 revealed that the majority of the respondents were managers (38.7%) and directors/associate directors (42.5%). With regard to the total years of experience working for the current college and university, 27.1% of the respondents had less than 5 years of experience. About 27.4% of the respondents had 5-10 years of working experience in their current foodservice operations, followed by 16 to 20 years of experience (14.3%), and 11 to 15 years of experience (13.8). In addition, 17.4% of the respondents had more than 20 years of experience working in the college/university foodservice operations. Approximately 22% of the respondents had 26-30 years of experience working in the foodservice industry followed by nearly 20% with 21-25 years of working experience in the foodservice field. Moreover, over 20% of respondents had more than 30 years of experience in the foodservice industry, while there were 3.6% and 9.9 % of respondents with less than 5 years and 5-10 years of working experience in the foodservice industry, respectively.

With regard to the hours that university foodservice operations were open, 89.7% of the respondents stated that their operations opened 7 days a week, while only 2.3% and 5.9% of the respondents revealed that the operations they worked for were open 6 days and 5 days a week, accordingly. In addition, the majority of the establishments (76.6%) that the respondents worked for were open during breakfast, lunch, and dinner hours but did not stay open for 24 hours.

There were 29.4% of the respondents who stated that they worked less than 40 hours between 6:00 a.m. to 6:00 p.m. weekly; however, as many as 24.7% and 23.9% of the

respondents worked 40-45 and 46-50 hours weekly between 6:00 a.m. to 6:00 p.m. Moreover, approximately 22% of the respondents devoted more than 50 hours between 6:00 a.m. to 6:00 p.m. weekly. With regard to hours worked between 6:00 p.m. till 6:00 a.m. during weekends, over one third of respondents reported 0 hour (37.4%), while 50.8% stated 1-10 hours and more than 10% of the respondents needed to work more than 10 hours between 6:00 p.m. till 6:00 a.m. during weekends. Over one third of the respondents stated that, monthly, they worked 1-10 hours during Saturdays and Sundays. Approximately 20% of the respondents worked 11-20 hours during Saturdays and Sundays monthly. In addition, there were 7.8% and nearly 20% of the respondents revealed that they worked 21-30 and 31and hours more during Saturdays and Sundays monthly, respectively.

TABLE 5

Respondents' Job-related Profile

	F	Valid %		F	Valid %
Current Position			**Work Experience in This College/University[1]**		
Manager	162	38.7			
Executive Chef	26	6.2	Less than 5 years	114	27.1
Director/Associate Director	178	42.5	5-10 years	115	27.4
Supervisor	7	1.7	11-15 years	58	13.8
Coordinator	11	2.6	16-20 years	60	14.3
President/Vice President	4	1.0	21-25 years	35	8.4
Dean/Associate Dean	2	.5	26-30 years	23	5.4
Other	29	6.9	Above 30 years	15	3.6
University Foodservice Operations Open Hours			**Experience in the Foodservice Industry[2]**		
7 days a week	383	89.7	Less than 5 years	16	3.6
6 days a week	10	2.3	5-10 years	43	9.9
5 days a week	25	5.9	11-15 years	49	10.8
Other	9	2.1	16-20 years	61	14.2
			21-25 years	83	19.5
			26-30 years	93	21.8
			Above 30 years	82	20.1
Type of Hours that the Establishment is Open			**Hours Work between 6:00 a.m.--6:00 p.m. Weekly[3]**		
Breakfast & Lunch Hours Only	3	.7	Less than 40 hours	17	4.1
Lunch & Dinner Hours Only	7	1.6	40-45 hours	143	34.5
B, L, & D but do not stay			46-50 hours	143	34.5
open 24 hours	327	76.6	51-55 hours	58	14.0
We are open 24 hours a day	18	4.2	56-60 hours	41	9.9
Other	72	16.9	Above 60 hours	12	2.9
Hours Work between 6:00 p.m. till 6 a.m. During Weekends[4]			**Hours Work On Weekends i.e., Saturdays & Sundays Monthly[5]**		
0 hour	158	38.2	0 hour	78	18.6
1-10 hours	208	50.2	1-10 hours	142	33.8
11-20 hours	38	9.2	11-20 hours	84	20.0
Above 20 hours	10	2.4	21-30 hours	33	7.9
			31-40 hours	57	13.6
			Above 40 hours	26	6.2

Note: n=442; Valid % - Based only on the cases who actually answered a question

[1]Mean= 11.6 (years), [2]Mean= 22.8 (years), [3]Mean= 38.7 (hours), [4]Mean= 5.6 (hours)

[5]Mean= 16.2 (hours)

‘Work-Family Conflict’ (WFC) Attributes of Respondents

The descriptive mean scores and standard deviations of the 19 WFC attributes were reported in the Table 6. The standard deviations ranged from 1.727 to 1.387 and did not show a large variation of the agreement among the respondents. The respondents did not show strong agreement towards the following WFC attributes and the mean score range from 4.74 to 3.99:

- “Work keeps me from family activities more than I like”
- “The time I must devote to my job keeps me from participating equally in family responsibilities and activities”
- “Miss family activities due to time spend on work”
- “Get home from work too tired to anticipate in family responsibilities”
- “When I come home I am too stressed to do things I enjoy”
- “I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.”

(See footnote in Table 6 for measurement scale)

Furthermore, the respondents showed negative attitudes toward the following attributes and the mean scores ranged from 2.89 to 2.70:

- “Due to stress at home, I am often preoccupied with family matters at work”
- “I have to miss work activities due to the amount of time I must spend on family responsibilities”
- “Because stressed from family responsibilities, I have a hard time concentrating on my work”
- “Get home from work too tired to anticipate in family responsibilities”
- “Tension and anxiety from my family life often weakens my ability to do my job.”

(See footnote in Table 6 for measurement scale)

TABLE 6

Work-Family Conflict (WFC) Attributes

	Mean	SD
Work keeps me from family activities more than I like.	4.74	1.632
The time I must devote to my job keeps me from participating equally in family responsibilities and activities.	4.60	1.565
Miss family activities due to time spend on work.	4.59	1.607
Get home from work too tired to anticipate in family responsibilities.	4.54	1.598
Get home from work/too tired to participate in family activities.	4.32	1.634
When I come home I am too stressed to do things I enjoy.	4.28	1.727
I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.	3.99	1.605
Behaviors used at work not help of being a better parent and spouse.	3.71	1.703
The behaviors that work for me at home do NOT seem to be effective at work.	3.71	1.494
Behavior at work would be counter-productive at home.	3.56	1.600
The problem-solving behavior that works for me at home does NOT seem to be as useful at work.	3.46	1.422
Behavior that is effective and necessary for me at home would be counter-productive at work.	3.39	1.475
Time with family Causes me not to spend time at work activities that could be helpful to my career	3.33	1.610
The problem-solving behaviors I use in my job are NOT effective in resolving problems at home.	3.31	1.507
Time spend on family interferes with work.	3.21	1.488
Due to stress at home, I am often preoccupied with family matters at work.	2.89	1.468
I have to miss work activities due to the amount of time I must spend on family responsibilities.	2.76	1.387
Because stressed from family responsibilities, I have a hard time concentrating on my work.	2.75	1.391
Tension and anxiety from my family life often weakens my ability to do my job.	2.70	1.391

Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

‘Role Interference’ Attributes of Respondents

The means for role interference among foodservice managers in the college and university foodservice industry were reported in Table 7. The role interferences were arranged in the table from the highest mean score of 5.53 to the lowest mean score of 3.78. The primary attributes that the respondents agreed upon were the following: “I work with two or more groups who operate quite differently”; “I know what my responsibilities at work are”; “I feel certain about how much authority I have”; “I have clear, planned goals and objectives for my job”; “I know exactly what is expected of me”; “I do things that are apt to be accepted by one person and NOT accepted by others”; “The explanation for my assignment is clear of what has to be done”; “I have to do things that should be done differently.” However, the majority slightly disagreed with the following statements: “At work, I often work on unnecessary things”; “I often have to go around a rule or policy in order to carry out an assignment.”

TABLE 7

Role Interference Attributes

	Mean	SD
I work with two or more groups who operate quite differently.	5.53	1.338
I know what my responsibilities at work are.	5.45	1.399
I feel certain about how much authority I have.	4.90	1.644
I have clear, planned goals and objectives for my job.	4.88	1.572
I know exactly what is expected of me.	4.76	1.625
I do things that are apt to be accepted by one person and NOT accepted by others.	4.67	1.576
The explanation for my assignment is clear of what has to be done.	4.60	1.466
I have to do things that should be done differently.	4.60	1.429
I receive incompatible requests from two or more people.	4.37	1.604
I often receive assignments without the manpower to complete it.	4.34	1.763
I know that I have divided my time between my work and family properly.	4.10	1.564
I receive an assignment without adequate resources and materials to execute it.	4.01	1.658
At work, I often work on unnecessary things.	3.86	1.687
I often have to go around a rule or policy in order to carry out an assignment.	3.78	1.653

Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

‘Pay Satisfaction’ Attributes of Respondents

Table 8 listed the mean and standard deviation scores of the pay satisfaction attributes. The respondents had a slight negative perception toward pay satisfaction all four attributes: “Raises are too few and far between”; “I feel unappreciated by the organization when I think about what they pay me”; “I feel satisfied with my chances for salary increases”; “I feel I am being paid a fair amount for the work I do.”

TABLE 8

Pay Satisfaction Attributes

	Mean	SD
Raises are too few and far between.	4.90	1.302
I feel unappreciated by the organization when I think about what they pay me.	4.75	1.334
I feel satisfied with my chances for salary increases.	2.54	1.299
I feel I am being paid a fair amount for the work I do.	2.52	1.299

Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

‘Intention to Leave’ Attributes of Respondents

Table 9 showed the mean and standard deviation scores of the intention to leave attributes. The mean scores ranged from 4.97 to 3.96, indicating that respondents had a slightly positive attitude toward intention to leave, which were the following: “As far as I can see ahead, I intend to stay with the current organization”; “I plan to be with my current organization FIVE YEARS from now”; “It is very important for me to spend my career in the current organization”; “I would turn down a job offer from another company if it came tomorrow.”

TABLE 9

Intention to Leave Attributes

	Mean	SD
As far as I can see ahead, I intend to stay with the current organization.	4.97	1.592
I plan to be with my current organization FIVE YEARS from now.	4.67	1.663
It is very important for me to spend my career in the current organization.	4.18	1.755
I would turn down a job offer from another company if it came tomorrow.	3.96	1.748

Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

Measures of Variables

There were several variables in this study: work-family conflict, pay satisfaction, role conflict, role ambiguity, and intention to leave. All of the items came from existing surveys and were adapted to better fit this study. The survey included 41 total items measuring work-family conflict (19 items), pay satisfaction (4 items), role conflict (6 items), role ambiguity (8 items), and intention to leave (4 items).

Work-Family Conflict

In order to identify the factors underlying the set of 19 items used to assess college/university foodservice managers' work-family conflict and to discover patterns from collected data, exploratory factor analysis was performed. In addition, because some of the work-family conflict items had been rewritten or edited from those used in previous research, exploratory factor analysis was conducted to establish the proper number and smaller number of dimensions that explain most of the variations among the work-family conflict attributes.

Items in the managers' level of agreement on work-family conflict were factor analyzed using principal component analysis with orthogonal VARIMAX rotation, to obtain the underlying dimensions. Items with factor loading of .40 or higher were retained since loadings of .40 are considered more important as recommended by Hair et al. (1998). Two statistics were used to test if the data were appropriate for common factor analysis. Barlett's test of sphericity statistically tests for the presence of correlations

among the variables, and the Kaiser-Meyer-Olkin (KMO) overall measure of sampling adequacy (MSA). As the following Table 'KMO and Barlett's Test for Work-Family Conflict' showed, the Barlett test was significant at .000, and the KMO-MSA overall value was above .80, indicating that data were suitable for factor analysis (See Table 10).

TABLE 10
KMO and Bartlett's Test for 'Work-Family Conflict"

KMO - MSA		.898
Bartlett's Test of Sphericity	Approx. Chi-Square	4678.220
	df	153
	Sig.	.000

The 19 items were factor analyzed and yielded 4 factors. All 4 factors had eigenvalues greater than 1.0, and the cumulative percentage of variance explained in the 4 factors solution was 69.6%. The 4 factors also presented a clean and interpretable solution although it showed a different underlying construct of work-family conflict from with Carlson et al.(2000) suggested in their 6 dimensions approach. The Cronbach's Alphas for the 4 factors ranged from .84 to .92 and were above the generally agreed upon lower limit of .60 (Hair, Anderson, Tatham, & Black, 1998).

The first factor of work-family conflict was labeled as "Behavioral Interference from Dual Direction" which accounted for 23.29% of the total variance with a reliability coefficient of .91. The second factor was labeled as "Time and Strain Interference from Family" which explained 17.82% of the total variance with a reliability coefficient of .84. The third factor labeled as "Time Interference from Work" accounted for 15.58% of the variance with a reliability coefficient of .92. The final factor labeled as "Strain

Interference from Work" which explained 12.88% of the total variance with a reliability coefficient of .84% (See Table 11).

TABLE 11

Underlying Dimensions of Work-Family Conflict

Work-Family Conflict Factors	Factor loading	Eigen value	Variance explained	Reliability coefficient
Factor 1: Behavioral Interference from Dual Direction		6.84	23.29%	.91
Behaviors at work do not help me to be a better parent and spouse	.71			
Behavior that is effective and necessary for me at work would be counter-productive at home	.79			
The behaviors that work for me at home do not seem to be effective at work.	.77			
The problem-solving behaviors I use in my job are not effective in resolving problems at home.	.82			
Behavior that is effective and necessary for me at home would be counter-productive at work	.84			
The problem-solving behavior that works for me at home does not seem to be as useful at work.	.85			
Factor 2: Time and Strain Interference from Family		2.59	17.82%	.84
The time I spend on family responsibilities often interferes with my work responsibilities	.67			
Due to stress at home, I am often preoccupied with family matters at work	.71			
The time I spend with my family often causes me NOT to spend time in activities at work that could be helpful to my career	.66			
I have to miss work activities due to the amount of time I must spend on family responsibilities	.77			
Because I am often stressed from family responsibilities, I have a hard time concentrating on my work	.73			
Tension and anxiety from my family life often weakens my ability to do my job	.67			
Factor 3: Time Interference from Work		1.98	15.58%	.92
My work keeps me from my family activities more than I would like	.87			
The time I must devote to my job keeps me from participating equally in family responsibilities and activities	.86			
I have to miss family activities due to the amount of time I must spend on work responsibilities	.87			

TABLE 11

Underlying Dimensions of Work-Family Conflict (continued)

Work-Family Conflict Factors	Factor loading	Eigen value	Variance explained	Reliability coefficient
Factor 4: Strain Interference from Work		1.10	12.88%	.84
When I get home from work I am often too tired to participate in family activities.	.72			
I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.	.75			
Due to all the pressures at work, sometimes when I come home I am too stressed to do things I enjoy	.71			
Total Variance Explained			69.57%	

Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

Role Interference

The items of role conflict and role ambiguity were factor analyzed together in order to verify and ensure that they were two different distinct dimensions. The 14 items, after conducting principle component analysis with orthogonal VARIMAX rotation, were aggregated into two factors: Role Ambiguity and Role Conflict. Items with factor loading of .40 or higher were retained. As in the following Table 12 'KMO and Barlett's Test for Role Interference Attribute', the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA) was .91, and the Bartlett's Test of Sphericity was significant at .000, indicating that data were suitable for factor analysis.

TABLE 12

KMO and Bartlett's Test for 'Role Interference Attribute'

KMO - MSA		.905
Bartlett's Test of Sphericity	Approx. Chi-Square	2722.681
	df	78
	Sig.	.000

The two derived factors had eigenvalues greater than 1.0 and the cumulative percentage of variance explained in the 2 factors solution was 57.4%. The Cronbach's Alphas for the 2 factors were .90 and .84, well above the generally agreed upon lower limit of .60 (Hair, Anderson, Tatham, & Black, 1998). The first factor of interrole conflict was labeled as "Role Ambiguity" which accounted for 29.10% of the total variance with a reliability coefficient of .84. The other factor was labeled as "Role Conflict" which explained 28.31% of the total variance with a reliability coefficient of .90 (See Table 13).

TABLE 13

Underlying Dimensions of Role Interference

Role Interference Factors	Factor loading	Eigen value	Variance explained	Reliability coefficient
Factor 1: Role Ambiguity		5.70	29.10%	.84
I have to do things that should be done differently.	.69			
I often receive assignments without the manpower to complete it.	.68			
I often have to go around a rule or policy in order to carry out an assignment.	.68			
I work with two or more groups who operate quite differently.	.57			
I receive incompatible requests from two or more people.	.72			
I do things that are apt to be accepted by one person and not accepted by others.	.67			
I receive an assignment without adequate resources and materials to execute it.	.74			
At work, I often work on unnecessary things.	.51			
Factor 2: Role Conflict		1.76	28.31%	.90
I feel certain about how much authority I have.*	.77			
I have clear, planned goals and objectives for my job.*	.83			
I know what my responsibilities at work are.*	.85			
I know exactly what is expected of me.*	.88			
The explanation for my assignment is clear of what has to be done.*	.72			
Total Variance Explained			57.40%	

Note: * Reverse-coded
Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

Pay Satisfaction

Pay satisfaction was determined by using items from the Job Satisfaction Survey (Spector, 1997). The 4 items (see Table 14) in the previous research were ranked on a 5-point Likert-type scale, ranging from disagree very much to agree very much. In the present project these items were modified in the research to fit a 7-point scale ranging from strongly disagree to strongly agree, scored 1 to 7 respectively since a Likert scale with 7-point would generate data with a lower measurement error and resulting in a higher precision when compared with a 5-point scale (Munshi, 1990). Although these 4 items showed a slightly lower level of internal consistency than Spector (.75), it was still acceptable (coefficient alpha = .73).

TABLE 14

The Measurement of Pay Satisfaction

Attributes	**Mean**	**SD**	**Cronbach's Alpha if Item Deleted**
I feel I am being paid a fair amount for the work I do.	2.52	1.299	.685
Raises are too few and far between.*	3.10	1.302	.689
I feel unappreciated by the organization when I think about what they pay me.*	3.25	1.334	.672
I feel satisfied with my chances for salary increases.	2.54	1.299	.610
Reliability Coefficient			**.726**

Note: * Reverse-coded
Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

Intention to Leave

There were 4 items (see Table 15) used to assess managers' intention to leave the current job/organization adapted, revised from Mitchel (1981). The questions that were asked in this section were measured using a seven-point Likert scale where 1 is "strongly disagree" and 7 is "strongly agree." The reliability coefficient for the items was .89, well above the acceptable value .60 (Hair, Anderson, Tatham, & Black, 1998).

TABLE 15

The Measurement of Intention to Leave

Attributes	**Mean**	**SD**	**Cronbach's Alpha if Item Deleted**
I would turn down a job offer from another company if it came tomorrow.*	4.04	1.748	.881
As far as I can see ahead, I intend to stay with the current organization.*	3.03	1.592	.844
It is very important for me to spend my career in the current organization.*	3.82	1.755	.854
I plan to be with my current organization FIVE YEARS from now.*	3.33	1.663	.859
Reliability Coefficient			**.891**

Note: * Reverse-coded
Scale: 1=Strongly disagree; 2=Disagree; 3=Somewhat disagree; 4=Neutral; 5=Somewhat agree; 6=Agree; 7=Strongly agree
n=442

Work Family Conflict by Demographic

One way ANOVA was used to determine whether there was any significant mean difference in the Work-Family Conflict on different demographic characteristics such as gender, age, marital status, ethnicity, education, number of children for care-giving responsibilities, number of elder relatives for care-giving responsibilities, and income. The four derived conflict dimensions were "behavioral interference from dual direction", "time and strain interference from family", "time interference from work", and "strain interference from work." The result of the ANOVA procedures showed overall significant differences between the four Work-Family Conflict (WFC) dimensions and demographic characteristics (see Table 16). Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. According to Table 16, gender was making significantly different in both factors, "Behavioral Interference from Dual Direction" (p=.034) and "Strain Interference from Work" (p=.001). Male respondents placed higher agreement scores on factor 1 than female respondents; however, factor 4 was perceived to have a greater sense of agreement from female respondents.

The post hoc test with Tukey's HSD statistics showed that respondents with different educational levels had different agreement or disagreement responses on factor 1 (behavioral interference from dual direction) and factor 3 (time Interference from work). Respondents with two year college (group 2) differed significantly in agreement factors from those with four year college and master degrees (group 3 and 4)

Respondents with different numbers of elder relatives for care-giving responsibilities also had different agreement answers on factor 4 (strain Interference from work). Further post hoc tests indicate that factor 4 was more agreed upon by respondents who had two elder relatives for care-giving responsibilities (group 3) than those who had none or one elder relatives for care-giving responsibilities (group 1 and group 2).

Significant mean differences were discovered among income groups between factor 2 (p=.022) and factor 4 (p=.002). The Tukey's HSD post hoc test showed that respondents with income level of over $80,000 (group 7) were more likely to be in disagreement with factor 2 than were the other three groups (group 2, group 3, and group 4). In addition, factor 4 was perceived to have a greater sense of agreement from respondents with income level of less than $30,000 (group 1), $40,001 to $50,000 (group 3), and $70,001 to $80,000 (group 6) than those with income level of over $80,000 (group 7).

TABLE 16

Dimensions of Work-Family Conflict by Demographic

Demographic Profile	The Dimensions of Work-Family Conflict			
	Factor 1 Behavioral Interference from Dual Direction	Factor 2 Time and Strain Interference from Family	Factor 3 Time Interference from Work	Factor 4 Strain Interference from Work
Gender				
Male	3.65	2.99	4.56	4.05
Female	3.39	2.88	4.73	4.50
F Value	4.55	1.10	1.34	11.12
P Value	**.034***	.295	.248	**.001***
Age				
Under 24	2.67	2.83	3.11	3.89
25-34	3.68	2.90	4.39	4.38
35-44	3.74	3.12	4.97	4.49
45-54	3.29	2.85	4.59	4.10
55-64	3.52	2.86	4.36	4.20
65 or above	3.89	1.94	4.78	4.44
Unwilling to answer	3.57	3.10	4.20	3.47
F Value	2.06	1.33	1.84	1.30
P Value	.057	.242	.090	.255
Marital Status				
Single	3.46	2.82	4.62	4.54
Married	3.52	2.91	4.68	4.18
Separated	3.60	3.30	5.67	4.53
Divorced	3.59	3.28	4.28	4.55
F Value	.10	1.93	1.74	1.80
P Value	.960	.124	.157	.146
Ethnicity				
African American/Black	3.60	2.82	4.49	4.13
American Indian/Alaskan Native	3.58	2.58	5.17	5.83
Asian	4.22	3.33	5.56	5.44
Caucasian/White	3.50	2.93	4.64	4.24
Hispanic/Latino	3.31	3.64	4.50	4.72
F Value	.299	.827	.390	1.34
P Value	.878	.509	.816	.254
Education				
High school (group1)	3.93	2.90	4.57	4.35
Two year college (g 2)	3.90	3.13	5.05	4.57
Four year college (g 3)	3.38	2.86	4.62	4.23
Master degree (g 4)	3.26	2.97	4.30	4.05
Doctorate degree (g 5)	3.50	3.41	4.85	3.74
Unwilling to answer (g6)	3.08	2.46	4.0	3.92
F Value	3.499	1.326	2.17	1.461
P Value	**.004***	.252	**.056***	.202
Post Hoc Test (Tukey)	2>3 (p=.014) 2>4 (p=.024)		2>4 (p=.029)	

TABLE 16

Dimensions of Work-Family Conflict by Demographic (continued)

Demographic Profile	The Dimensions of Work-Family Conflict			
	Factor 1 Behavioral Interference from Dual Direction	Factor 2 Time and Strain Interference from Family	Factor 3 Time Interference from Work	Factor 4 Strain Interference from Work
Number of Children for Care-giving Responsibilities				
1	3.47	2.99	4.80	4.31
2	3.76	3.02	4.60	4.35
3	3.24	3.15	4.85	3.95
4	3.48	3.46	4.63	3.58
5	4.45	3.36	5.24	4.86
0	3.42	2.73	4.48	4.26
F Value	2.40	1.978	.931	1.286
P Value	.037	.081	.461	.269
Number of Elder Relatives for Care-giving Responsibilities				
0 (group 1)	3.53	2.88	4.61	4.20
1 (g 2)	3.47	3.05	4.59	4.0
2 (g 3)	3.65	3.37	5.08	5.16
3 (g 4)	3.50	2.50	4.17	4.0
4 (g 5)	3.75	4.08	6.0	4.67
5 (g 6)	2.67	3.00	4.5	3.33
F Value	.281	1.887	.990	3.561
P Value	.923	.095	.423	**.004***
Post Hoc Test (Tukey)				3>1 (p=.002) 3>2 (p=.003)
Income				
Less than $30,000 (group 1)	4.29	2.95	4.52	5.10
$30,000 to $40,000 (g 2)	3.62	3.11	4.60	4.42
$40,001 to $50,000 (g 3)	3.61	3.02	4.77	4.43
$50,001 to $60,000 (g 4)	3.51	3.12	4.79	4.20
$60,001 to $70,000 (g 5)	3.37	2.91	4.53	4.28
$70,001 to $80,000 (g 6)	3.52	2.89	4.90	4.50
Over $80,000 (g 7)	3.11	2.49	4.33	3.67
Unwilling to answer (g 8)	3.67	2.58	3.94	3.36
F Value	1.718	2.374	1.254	3.379
P Value	.103	**.022***	.272	**.002***
Post Hoc Test (Tukey)		2>7 (p=.025) 3>7 (p=.047) 4>7 (p=.016)		1>7 (p=.042) 3>7 (p=.018) 6>7 (p=.041)

*p<.05

Work-Family Conflict by Job-related Attributes

One-way ANOVA was used to determine whether there was any significant mean difference in Work-Family Conflict on various job-related attributes such as current position, years of work experience in this college/university, years of work experience in the foodservice industry, university foodservice operations open hours, type of hours that the establishment is open, number of hours work between 6:00 a.m. to 6:00 p.m. weekly, number of hours work between 6:00 p.m. to 6:00 a.m. during weekends, and number of hours work on weekends (i.e., Saturday and Sunday) monthly. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The results of the ANOVA procedures identified several significant differences between the four Work-Family Conflict (WFC) dimensions and job-related attributes (see Table 17).

According to Table 17, only one significant mean differences was found between years of work experience in this college/university and factor 1, "behavioral interference from dual direction" (p=.028). Further post hoc test indicated that factor 1 was more disagreed upon with respondents who had 26-30 years (group 6) than those had 5-10 years (group 2) of work experience in this college/university.

Respondents with different number of hours work between 6:00 a.m. to 6:00 p.m. weekly also had different agreement or disagreement answers on factor 1 (p=.002), factor 3 (p=.000),and factor 4 (p=.000). Factor 1 was perceived to have more agreement from respondents with above 60 hours (group 6) work between 6:00 a.m. to 6:00 p.m. weekly than those with less than 40 hours (group 1), 40-45 hours (group 2), and 46-50 hours

(group 3). Factor 3 was perceived to have more agreement among respondents with 51-55 hours (group 4) and 56-60 hours (group 5) work between 6:00 a.m. to 6:00 p.m. weekly than those with 40-45 hours and 46-50 hours (group 2 and 3). Factor 4 was greater disagreement with respondents who had less than 40 hours (group 1) work between 6:00 a.m. to 6:00 p.m. weekly than those had more than 50 hours (group 4, 5, and 6). In addition, factor 4 was also perceived to have a greater sense of agreement from respondents who belong to groups 4, 5, and 6 than those who had less than 40 hours (group 1) work between 6:00 a.m. to 6:00 p.m. weekly. Furthermore, factor 4 was perceived more agreed upon with respondents who had 56-60 hours (group 5) than those who had 46-50 hours (group 3) work between 6:00 a.m. to 6:00 p.m. weekly.

One significant mean difference was found between the hours work between 6:00 p.m. to 6:00 a.m. during weekends and factor 3, "Time Interference from Work" (p=.000). Respondents who had 0 hour (group 1) placed lower agreement scores on factor 3 than those who had 1-10 hours (group 2) and 11-20 hours (group 3) work between 6:00 p.m. to 6:00 a.m. during weekends.

The significant mean differences were discovered among groups of hours work on weekends (i.e., Saturday and Sunday) monthly between factor 1 (p=.016) and factor 3 (p=.000). The post hoc tests indicated that respondents who had above 40 hours (group 6) work on weekends monthly were more likely to be in agreement with factor 1 than were respondents with 1-10 hours (group 2). Factor 3 was perceived to have less agreement from respondents with 0 hour (group 1) than the other five groups (group 2, 3, 4, 5, and 6). Moreover, the post hoc test showed that respondents who had 1-10 hours (group 2)

work on weekends monthly were more likely to be in disagreement with factor 3 than were among group 3, 5 and 6.

TABLE 17

Dimensions of Work-Family Conflict by Job-related Attributes

Job-related Attributes	The Dimensions of Work-Family Conflict			
	Behavioral Interference from Dual Direction	Time and Strain Interference from Family	Time Interference from Work	Strain Interference from Work
Current Position				
Manager	3.46	2.96	4.71	4.37
Executive Chef	3.97	3.46	5.15	4.62
Director/Associate Director	3.50	2.77	4.61	4.16
Supervisor	3.69	3.45	5.38	4.71
Coordinator	3.09	2.91	3.97	3.94
President/Vice Pres.	2.92	3.04	3.42	3.33
Dean/Associate Dean	3.75	3.17	5.17	3.33
Other	3.67	3.17	4.10	4.11
F Value	.915	1.934	2.078	1.094
P Value	.495	.063	.045	.366
Years of Work Experience in This College/University				
Less than 5 years (group 1)	3.59	2.99	4.64	4.22
5-10 years (g 2)	3.76	3.03	4.64	4.45
11-15 years (g 3)	3.23	2.69	4.46	4.00
16-20 years (g 4)	3.36	3.00	4.64	4.32
21-25 years (g 5)	3.40	2.88	4.83	4.12
26-30 years (g 6)	2.88	2.68	4.33	3.88
Above 30 years (g 7)	3.80	2.82	4.96	4.56
F Value	2.388	.998	.503	1.052
P Value	**.028***	.426	.806	.391
Post Hoc Test (Tukey)	2>6 (p=.048)			
Years of Experience in the Foodservice Industry				
Less than 5 years	3.64	3.29	4.17	4.36
5-10 years	3.65	3.08	4.50	4.44
11-15 years	3.78	3.06	4.75	4.38
16-20 years	3.63	3.14	4.88	4.46
21-25 years	3.49	2.28	4.59	4.10
26-30 years	3.31	2.93	4.70	4.21
Above 30 years	3.40	2.75	4.61	4.16
F Value	1.045	1.677	.779	.635
P Value	.395	.125	.587	.702
Univ. Foodservice Operations Open Hours				
7 days a week	3.48	2.94	4.69	4.27
6 days a week	3.35	3.05	4.33	4.10
5 days a week	3.87	2.77	4.03	4.03
Other	3.81	3.09	5.07	4.59
F Value	.976	.305	1.943	.122
P Value	.404	.822	.433	.729

TABLE 17

Dimensions of Work-Family Conflict by Job-related Attributes (continued)

Job-related Attributes	The Dimensions of Work-Family Conflict			
	Behavioral Interference from Dual Direction	Time and Strain Interference from Family	Time Interference from Work	Strain Interference from Work
Type of Hours that the Establishment is Open				
Bkfast & Lunch Hours only	3.94	2.89	3.56	3.00
Lunch & Dinner Hours only	4.57	3.64	5.38	5.19
B, L, & D But do not stay open 24 hours	3.48	2.95	4.57	4.21
Open 24 hours	3.28	2.87	4.50	4.26
Other	3.53	2.80	5.01	4.45
F Value	1.518	1.062	2.218	1.772
P Value	.196	.375	.066	.134
Hours Work between 6:00 a.m.-6:00 p.m. Weekly				
Less than 40 hours (group 1)	3.12	2.95	4.53	3.61
40-45 hours (g 2)	3.39	3.00	4.16	3.90
46-50 hours (g 3)	3.37	2.78	4.55	4.19
51-55 hours (g 4)	3.80	3.03	5.57	4.75
56-60 hours (g 5)	3.87	3.28	5.46	5.08
Above 60 hours (g 6)	4.51	2.82	5.06	5.11
F Value	3.887	1.636	11.793	8.224
P Value	**.002***	.149	**.000***	**.000***
Post Hoc Test (Tukey)	6>1 (p=.035) 6>2 (p=.031) 6>3 (p=.028)		4>2 (p=.000) 5>2 (p=.000) 4>3 (p=.000) 5>3 (p=.003)	4>1 (p=.030 5>1 (p=.003) 6>1 (p=.041) 4>2 (p=..001) 5>2 (p=.000) 6>2 (p=.039) 5>3 (p=.004)
Hours btw 6:00 p.m. - 6:00 a.m. During Weekends				
0 hour (group 1)	3.49	2.83	4.00	4.05
1-10 hours (g 2)	3.51	2.98	4.98	4.31
11-20 hours (g 3)	3.71	3.17	5.43	4.54
Above 20 hours (g 4)	3.08	3.22	4.57	4.47
F Value	.728	1.427	18.981	1.809
P Value	.536	.234	**.000***	.145
Post Hoc Test (Tukey)			2>1 (p=.000) 3>1 (p=.000)	

TABLE 17

Dimensions of Work-Family Conflict by Job-related Attributes (continued)

Job-related Attributes	The Dimensions of Work-Family Conflict			
	Behavioral Interference from Dual Direction	Time and Strain Interference from Family	Time Interference from Work	Strain Interference from Work
Hours Work on Weekends (i.e., Sat. & Sun.) Monthly				
0 hour (group 1)	3.44	2.71	3.59	3.88
1-10 hours (g 2)	3.25	2.90	4.46	4.17
11-20 hours (g 3)	3.64	3.09	5.08	4.49
21-30 hours (g 4)	3.57	2.83	5.12	4.36
31-40 hours (g 5)	3.77	3.10	5.18	4.40
Above 40 hours (g 6)	4.03	3.13	5.71	4.79
F Value	2.832	1.569	17.377	2.592
P Value	**.016***	.168	**.000***	.025
Post Hoc Test (Tukey)	6>2 (p=.047)		2>1 (p=.000) 3>1 (p=.000) 4>1 (p=.000) 5>1 (p=.000) 6>1 (p=.000) 3>2 (p=.012) 5>2 (p=.010) 6>2 (p=.000)	

*p<.05

Role Conflict by Demographic

One-way ANOVA was used to determine whether there was any significant mean difference between "Role Conflict" and demographic characteristics such as gender, age, marital status, ethnicity, education, number of children for care-giving responsibilities, number of elder relatives for care-giving responsibilities, and income. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The result of the ANOVA procedures showed overall significant differences between "Role Conflict" and demographic characteristics (see Table 18).

According to Table 18, the only one significant mean difference that was found among income groups on "Role Conflict" (p=.000). The post hoc test showed that respondents with income level of over $80,000 (group 7) were more likely to be in agreement with "Role Conflict" than were the other two groups (group 2 and 3).

TABLE 18

Role Conflict by Demographic

Demographic Profile	Role Conflict
Gender	
Male	3.13
Female	3.03
F Value	.667
P Value	.414
Age	
Under 24	2.73
25-34	3.47
35-44	3.16
45-54	3.04
55-64	2.83
65 or above	2.40
Unwilling to answer	2.84
F Value	1.317
P Value	.248

TABLE 18

Role Conflict by Demographic (continued)

Demographic Profile	Role Conflict
Marital Status	
Single	3.28
Married	3.03
Separated	3.20
Divorced	3.17
F Value	.685
P Value	.562
Ethnicity	
African American/Black	3.08
American Indian/Alaskan Native	3.20
Asian	3.00
Caucasian/White	3.08
Hispanic/Latino	2.63
F Value	.180
P Value	.949
Education	
High school	3.24
Two year college	3.12
Four year college	3.07
Master degree	3.09
Doctorate degree	2.44
Unwilling to answer	3.30
F Value	.565
P Value	.727
Number of Children for Care-giving Responsibilities	
1	3.12
2	3.00
3	2.77
4	2.90
5	3.57
0	3.23
F Value	1.229
P Value	.294
Number of Elder Relatives for Care-giving Responsibilities	
0	3.07
1	2.87
2	3.18
3	3.30
4	4.20
5	2.00
F Value	.847
P Value	.517

TABLE 18

Role Conflict by Demographic (continued)

Demographic Profile	Role Conflict
Income	
Less than $30,000 (group 1)	3.78
$30,000 to $40,000 (g 2)	3.53
$40,001 to $50,000 (g 3)	3.32
$50,001 to $60,000 (g 4)	3.10
$60,001 to $70,000 (g 5)	2.80
$70,001 to $80,000 (g 6)	2.81
Over $80,000 (g 7)	2.57
Unwilling to answer (g 8)	2.52
F Value	4.546
P Value	**.000***
Post Hoc Test (Tukey)	2>7 (p=.001)
	3>7 (p=.007)

*p<.05

Role Conflict by Job-related Attributes

One-way ANOVA was used to determine whether there was any significant mean difference between "Role Conflict" and various job-related attributes such as current position, years of work experience in this college/university, years of work experience in the foodservice industry, university foodservice operations open hours, type of hours that the establishment is open, number of hours work between 6:00 a.m. to 6:00 p.m. weekly, number of hours work between 6:00 p.m. to 6:00 a.m. during weekends, and number of hours work on weekends (i.e., Saturday and Sunday) monthly. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The result of the ANOVA procedures showed overall significant differences between "Role conflict" and job-related attributes (see Table 19).

According to Table 19, the significant mean differences were found among years of work experience in the foodservice industry and "Role Conflict" (p=.013). Further post hoc test indicated that "Role Conflict" was more agreed upon with respondents who had 11-15 years (group 3) than those had more than 20 years (group 5, 6, and 7)) of work experience in the foodservice industry.

The significant mean differences were also discovered between groups of "hours work on weekends (i.e., Saturday and Sunday) monthly" and "Role Conflict" (p=.064). The post hoc test indicated that respondents who had above 40 hours (group 6) work on weekends monthly were more likely to be in agreement with "Role Conflict" than were respondents with 1-10 hours (group 2).

TABLE 19

Role Conflict by Job-related Attributes

Job-related Attributes	Role Conflict
Current Position	
Manager	3.20
Executive Chef	3.57
Director/Associate Director	2.87
Supervisor	3.20
Coordinator	3.22
President/Vice Pres.	3.10
Dean/Associate Dean	2.10
Other	3.39
F Value	1.806
P Value	.085
Years of Work Experience in This College/University	
Less than 5 years	3.31
5-10 years	3.13
11-15 years	2.78
16-20 years	2.91
21-25 years	2.87
26-30 years	2.97
Above 30 years	2.91
F Value	1.619
P Value	.140
Years of Experience in the Foodservice Industry	
Less than 5 years (group 1)	3.12
5-10 years (g 2)	3.34
11-15 years (g 3)	3.67
16-20 years (g 4)	3.21
21-25 years (g 5)	2.90
26-30 years (g 6)	2.92
Above 30 years (g 7)	2.90
F Value	2.717
P Value	**.013***
Post Hoc Test (Tukey)	3>5 (p=.023) 3>6 (p=.024) 3>7 (p=.018)
Univ. Foodservice Operations Open Hours	
7 days a week	3.11
6 days a week	2.88
5 days a week	2.74
Other	3.07
F Value	.700
P Value	.553

TABLE 19

Role Conflict by Job-related Attributes (continued)

Job-related Attributes	Role Conflict
Type of Hours that the Establishment is Open	
Bkfast & Lunch Hours only	2.87
Lunch & Dinner Hours only	3.29
B, L, & D But do not stay open 24 hours	3.13
Open 24 hours	2.62
Other	2.92
F Value	1.004
P Value	.405
Hours Work between 6:00 a.m.-6:00 p.m. Weekly	
Less than 40 hours	2.68
40-45 hours	3.20
46-50 hours	2.92
51-55 hours	3.07
56-60 hours	3.15
Above 60 hours	3.73
F Value	1.595
P Value	.160
Hours btw 6:00 p.m. - 6:00 a.m. During Weekends	
0 hour	3.08
1-10 hours	3.01
11-20 hours	3.35
Above 20 hours	3.16
F Value	.752
P Value	.522
Hours Work on Weekends (i.e., Sat. & Sun.) Monthly	
0 hour (group 1)	3.13
1-10 hours (g 2)	2.92
11-20 hours (g 3)	3.03
21-30 hours (g 4)	2.89
31-40 hours (g 5)	3.27
Above 40 hours (g 6)	3.72
F Value	2.106
P Value	.064
Post Hoc Test (Tukey)	6>2 (p=.047)

*p<.05

Role Ambiguity by Demographic

One-way ANOVA was used to determine whether there was any significant mean difference between "Role Ambiguity" and demographic characteristics such as gender, age, marital status, ethnicity, education, number of children for care-giving responsibilities, number of elder relatives for care-giving responsibilities, and income. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The result of the ANOVA procedures showed overall significant differences between "Role Ambiguity" and demographic characteristics (see Table 20).

According to Table 20, the only one significant mean difference that was found between "number of children for care-giving responsibilities" on "Role Ambiguity" (p=.009). Respondents who had five children (group 5) for care-giving responsibilities placed higher agreement scores than group 3 (who had 3 children for care-giving responsibilities).

TABLE 20

Role Ambiguity by Demographic

Demographic Profile	Role Ambiguity
Gender	
Male	4.49
Female	4.29
F Value	3.727
P Value	.054
Age	
Under 24	3.25
25-34	4.52
35-44	4.41
45-54	4.39
55-64	4.31
65 or above	4.29
Unwilling to answer	4.18
F Value	.710
P Value	.642
Marital Status	
Single	4.44
Married	4.41
Separated	4.08
Divorced	4.28
F Value	.327
P Value	.806
Ethnicity	
African American/Black	4.20
American Indian/Alaskan Native	5.44
Asian	4.38
Caucasian/White	4.39
Hispanic/Latino	4.02
F Value	.701
P Value	.592
Education	
High school	4.38
Two year college	4.59
Four year college	4.27
Master degree	4.47
Doctorate degree	4.51
Unwilling to answer	4.97
F Value	1.374
P Value	.233
Number of Children for Care-giving Responsibilities	
1 (group 1)	4.58
2 (g 2)	4.47
3 (g 3)	4.07
4 (g 4)	3.88
5 (g 5)	5.41
0 (g 6)	4.34
F Value	3.119
P Value	**.009***
Post Hoc Test (Tukey)	5>3 (p=.032)

TABLE 20

Role Ambiguity by Demographic (continued)

Demographic Profile	Role Ambiguity
Number of Elder Relatives for Care-giving Responsibilities	
0	4.37
1	4.42
2	4.61
3	5.31
4	5.50
5	2.75
F Value	1.856
P Value	.101
Income	
Less than $30,000	4.84
$30,000 to $40,000	4.45
$40,001 to $50,000	4.54
$50,001 to $60,000	4.42
$60,001 to $70,000	4.32
$70,001 to $80,000	4.16
Over $80,000	4.24
Unwilling to answer	3.98
F Value	1.309
P Value	.244

*p<.05

Role Ambiguity by Job-related Attributes

One-way ANOVA was used to determine whether there was any significant mean difference between "Role Ambiguity" and various job-related attributes such as current position, years of work experience in this college/university, years of work experience in the foodservice industry, university foodservice operations open hours, type of hours that the establishment is open, number of hours work between 6:00 a.m. to 6:00 p.m. weekly, number of hours work between 6:00 p.m. to 6:00 a.m. during weekends, and number of hours work on weekends (i.e., Saturday and Sunday) monthly. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The result of the ANOVA procedures showed overall significant differences between "Role Ambiguity" and job-related attributes (see Table 21).

According to Table 21, the significant mean differences were found between groups of hours work between 6:00 a.m. to 6:00 p.m. weekly and "Role Ambiguity" (p=.002). The post hoc test indicated that respondents who had 56-60 hours (group 5) work between 6:00 a.m. to 6:00 p.m. weekly were more likely to be in agreement with "Role Ambiguity" than were respondents with 40-45 hours (group 2) and 46-50 hours (group 3).

TABLE 21

Role Ambiguity by Job-related Attributes

Job-related Attributes	Role Ambiguity
Current Position	
Manager	4.32
Executive Chef	4.55
Director/Associate Director	4.44
Supervisor	4.64
Coordinator	4.50
President/Vice Pres.	3.72
Dean/Associate Dean	4.00
Other	4.39
F Value	.538
P Value	.806
Work Experience in This College/University	
Less than 5 years	4.38
5-10 years	4.49
11-15 years	4.22
16-20 years	4.31
21-25 years	4.47
26-30 years	4.39
Above 30 years	4.38
F Value	.435
P Value	.856
Experience in the Foodservice Industry	
Less than 5 years	4.18
5-10 years	4.49
11-15 years	4.61
16-20 years	4.58
21-25 years	4.22
26-30 years	4.35
Above 30 years	4.33
F Value	1.182
P Value	.315
Univ. Foodservice Operations Open Hours	
7 days a week	4.38
6 days a week	4.25
5 days a week	4.31
Other	4.81
F Value	.523
P Value	.666
Type of Hours that the Establishment is Open	
Bkfast & Lunch Hours only	5.04
Lunch & Dinner Hours only	4.63
B, L, & D But do not stay open 24 hours	4.36
Open 24 hours	3.90
Other	4.57
F Value	1.739
P Value	.140

TABLE 21

Role Ambiguity by Job-related Attributes (continued)

Job-related Attributes	Role Ambiguity
Hours Work between 6:00 a.m.-6:00 p.m. Weekly	
Less than 40 hours (group 1)	4.15
40-45 hours (g 2)	4.28
46-50 hours (g 3)	4.28
51-55 hours (g 4)	4.52
56-60 hours (g 5)	4.90
Above 60 hours (g 6)	5.13
F Value	3.865
P Value	**.002***
Post Hoc Test (Tukey)	5>2 (p=.017) 5>3 (p=.016)
Hours btw 6:00 p.m. - 6:00 a.m. During Weekends	
0 hour	4.31
1-10 hours	4.40
11-20 hours	4.65
Above 20 hours	4.46
F Value	.977
P Value	.404
Hours Work on Weekends (i.e., Sat. & Sun.) Monthly	
0 hour	4.29
1-10 hours	4.30
11-20 hours	4.41
21-30 hours	4.48
31-40 hours	4.50
Above 40 hours	4.87
F Value	1.459
P Value	.202

*p<.05

Intention to Leave by Demographic

One-way ANOVA was used to determine whether there was any significant mean difference between "Intention to Leave" and demographic characteristics such as gender, age, marital status, ethnicity, education, number of children for care-giving responsibilities, number of elder relatives for care-giving responsibilities, and income. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The result of the ANOVA procedures showed overall significant differences between "Intention to Leave" and demographic characteristics (see Table 22).

According to Table 22, the only one significant mean difference was found between age groups and "Intention to Leave" (p=.009).). Further post hoc tests indicated that "Intention to Leave" was more agreed upon with respondents who were in the age of 25-34 (group 2) than those who were in the age of 55-64 (group 5).

TABLE 22

Intention to Leave by Demographics

Demographic Profile	Intention to Leave
Gender	
Male	3.65
Female	3.45
F Value	2.115
P Value	.147
Age	
Under 24 (group 1)	2.17
25-34 (g 2)	4.04
35-44 (g 3)	3.70
45-54 (g 4)	3.58
55-64 (g 5)	3.06
65 or above (g 6)	2.58
Unwilling to answer (g 7)	3.10
F Value	2.907
P Value	**.009***
Post Hoc Test (Tukey)	2>5 (p=.018)

TABLE 22

Intention to Leave by Demographics

Demographic Profile	Intention to Leave
Marital Status	
Single	3.87
Married	3.50
Separated	3.90
Divorced	3.47
F Value	1.198
P Value	.310
Ethnicity	
African American/Black	3.50
American Indian/Alaskan Native	5.12
Asian	4.92
Caucasian/White	3.53
Hispanic/Latino	4.00
F Value	1.356
P Value	.249
Education	
High school	3.23
Two year college	3.68
Four year college	3.58
Master degree	3.61
Doctorate degree	3.25
Unwilling to answer	3.31
F Value	.554
P Value	.735
Number of Children for Care-giving Responsibilities	
1	3.82
2	3.53
3	3.42
4	3.72
5	4.18
0	3.49
F Value	.892
P Value	.486
Number of Elder Relatives for Care-giving Responsibilities	
0	3.56
1	3.44
2	3.96
3	2.75
4	4.50
5	2.38
F Value	1.076
P Value	.373

TABLE 22

Intention to Leave by Demographics (continued)

Demographic Profile	Intention to Leave
Income	
Less than $30,000	3.72
$30,000 to $40,000	3.90
$40,001 to $50,000	3.80
$50,001 to $60,000	3.43
$60,001 to $70,000	3.26
$70,001 to $80,000	3.66
Over $80,000	3.23
Unwilling to answer	2.81
F Value	2.184
P Value	.035

*p<.05

Intention to Leave by Job-related Attributes

One-way ANOVA was used to determine whether there was any significant mean difference between "Intention to Leave" and various job-related attributes such as current position, years of work experience in this college/university, years of work experience in the foodservice industry, university foodservice operations open hours, type of hours that the establishment is open, number of hours work between 6:00 a.m. to 6:00 p.m. weekly, number of hours work between 6:00 p.m. to 6:00 a.m. during weekends, and number of hours work on weekends (i.e., Saturday and Sunday) monthly. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The result of the ANOVA procedures showed overall significant differences between "Intention to Leave" and job-related attributes (see Table 23).

According to Table 23, the significant mean differences were found between groups of university foodservice operations open hours and "Intention to Leave" (p=.047). The post hoc test indicated that respondents who worked for university foodservice operations which open 5 days a week were more likely to be in disagreement with "Intention to Leave" than were respondents with other open hours (group 4).

The significant mean differences were discovered between groups of hours work between 6:00 a.m. to 6:00 p.m. weekly and "Intention to Leave" (p=.001). The post hoc test showed that respondents who had over 60 hours work between 6:00 a.m. to 6:00 p.m. weekly (group 6) were likely to be in agreement with "Intention to Leave" than were respondents with 40-45 hours (group 2) and 46-50 hours (group 3).

One significant mean difference was found between the hours work between 6:00 p.m. to 6:00 a.m. during weekends and "Intention to Leave" (p=.014). Respondents who had 11-20 hours (group 3) placed higher agreement scores on "Intention to Leave" than those who had 0 hour (group 1) work between 6:00 p.m. to 6:00 a.m. during weekends.

Statistically significant mean differences were discovered between groups of hours work on weekends (i.e., Saturday and Sunday) monthly and "Intention to Leave" (p=.000). The post hoc tests indicated that respondents who had above 40 hours work on weekends monthly (group 6) were more likely to be in agreement with "Intention to Leave" than were respondents with 0 hour (group 1) and 1-10 hours (group 2). "Intention to Leave" was perceived to have more agreement from respondents with 11-20 hour (group 3) than respondents who had 1-10 hours (group 2) work on weekends monthly.

TABLE 23

Intention to Leave by Job-related Attributes

Job-related Attributes	Intention to Leave
Current Position	
Manager	3.61
Executive Chef	3.92
Director/Associate Director	3.42
Supervisor	3.79
Coordinator	3.70
President/Vice Pres.	3.81
Dean/Associate Dean	4.38
Other	3.65
F Value	.619
P Value	.740
Work Experience in This College/University	
Less than 5 years	3.84
5-10 years	3.60
11-15 years	3.32
16-20 years	3.61
21-25 years	3.09
26-30 years	3.11
Above 30 years	2.83
F Value	2.705
P Value	.014
Experience in the Foodservice Industry	
Less than 5 years	3.86
5-10 years	3.99
11-15 years	4.03
16-20 years	3.52
21-25 years	3.40
26-30 years	3.49
Above 30 years	3.33
F Value	1.977
P Value	.068
Univ. Foodservice Operations Open Hours	
7 days a week (group 1)	3.57
6 days a week (g 2)	3.43
5 days a week (g 3)	3.06
Other (g 4)	4.67
F Value	2.674
P Value	**.047***
Post Hoc Test (Tukey)	4>3 (p=.027)
Type of Hours that the Establishment is Open	
Bkfast & Lunch Hours only	4.00
Lunch & Dinner Hours only	3.75
B, L, & D But do not stay open 24 hours	3.55
Open 24 hours	2.86
Other	3.73
F Value	1.338
P Value	.255

TABLE 23

Intention to Leave by Job-related Attributes (continued)

Job-related Attributes	Intention to Leave
Hours Work between 6:00 a.m.-6:00 p.m. Weekly	
Less than 40 hours (group 1)	3.53
40-45 hours (g 2)	3.40
46-50 hours (g 3)	3.37
51-55 hours (g 4)	3.75
56-60 hours (g 5)	4.11
Above 60 hours (g 6)	4.88
F Value	4.068
P Value	**.001***
Post Hoc Test (Tukey)	6>2 (p=.011)
	6>3 (p=.010)
Hours btw 6:00 p.m. - 6:00 a.m. During Weekends	
0 hour (group 1)	3.32
1-10 hours (g 2)	3.64
11-20 hours (g 3)	4.13
Above 20 hours (g 4)	3.30
F Value	3.596
P Value	**.014***
Post Hoc Test (Tukey)	3>1 (p=.014)
Hours Work on Weekends (i.e., Sat. & Sun.) Monthly	
0 hour (group 1)	3.29
1-10 hours (g 2)	3.23
11-20 hours (g 3)	3.91
21-30 hours (g 4)	3.61
31-40 hours (g 5)	3.77
Above 40 hours (g 6)	4.63
F Value	6.020
P Value	**.000***
Post Hoc Test (Tukey)	6>1 (p=.001)
	3>2 (p=.010)
	6>2 (p=.000)

*p<.05

Pay Satisfaction by Demographics

One-way ANOVA was used to determine whether there was any significant mean difference between "Pay Satisfaction" and demographic characteristics such as gender, age, marital status, ethnicity, education, number of children for care-giving responsibilities, number of elder relatives for care-giving responsibilities, and income. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences.

According to Table 24, the significant mean differences were found among "Income" and "Pay Satisfaction" (p=.013). Further post hoc test indicated that "Pay Satisfaction" was more agreed upon with respondents with income level of $60,001 to $70,000 (group 5) than those with income level of $50,001 to $60,000 (group 4).

TABLE 24

Pay Satisfaction by Demographics

Demographic Profile	Pay Satisfaction
Gender	
Male	2.82
Female	2.88
F Value	1.292
P Value	.256
Age	
Under 24	2.75
25-34	2.82
35-44	2.84
45-54	2.84
55-64	2.91
65 or above	2.67
Unwilling to answer	3.10
F Value	.399
P Value	.879
Marital Status	
Single	2.85
Married	2.84
Separated	3.20
Divorced	2.86
F Value	.725
P Value	.538
Ethnicity	
African American/Black	2.75
American Indian/Alaskan Native	2.38
Asian	3.00
Caucasian/White	2.86
Hispanic/Latino	2.92
F Value	.576
P Value	.680
Education	
High school	2.80
Two year college	2.81
Four year college	2.84
Master degree	2.97
Doctorate degree	2.86
Unwilling to answer	2.69
F Value	.825
P Value	.532
Number of Children for Care-giving Responsibilities	
1	2.80
2	2.85
3	2.87
4	3.00
5	2.79
0	2.87
F Value	.333
P Value	.893

TABLE 24

Pay Satisfaction by Demographics (continued)

Demographic Profile	Pay Satisfaction
Number of Elder Relatives for Care-giving Responsibilities	
0	2.84
1	2.90
2	2.93
3	2.75
4	2.88
5	2.63
F Value	.308
P Value	.908
Income	
Less than $30,000 (group 1)	2.73
$30,000 to $40,000 (g 2)	2.88
$40,001 to $50,000 (g 3)	2.85
$50,001 to $60,000 (g 4)	2.67
$60,001 to $70,000 (g 5)	3.04
$70,001 to $80,000 (g6)	2.81
Over $80,000 (g 7)	2.93
Unwilling to answer (g 8)	3.02
F Value	2.567
P Value	**.013***
Post Hoc Test (Tukey)	5>4 (p=.005)

*p<.05

Pay Satisfaction by Job-related Attributes

One-way ANOVA was used to determine whether there was any significant mean difference between "Pay Satisfaction" and various job-related attributes such as current position, years of work experience in this college/university, years of work experience in the foodservice industry, university foodservice operations open hours, type of hours that the establishment is open, number of hours work between 6:00 a.m. to 6:00 p.m. weekly, number of hours work between 6:00 p.m. to 6:00 a.m. during weekends, and number of hours work on weekends (i.e., Saturday and Sunday) monthly. Tukey's Honestly Significant Difference (HSD) test was used as the post hoc procedure to further investigating group mean differences. The result of the ANOVA procedures showed overall significant differences between "Pay Satisfaction" and job-related attributes (see Table 25). The result of the ANOVA procedures showed that there was none statistically significant differences found between "Pay Satisfaction" and demographic characteristics (see Table 25).

TABLE 25

Pay Satisfaction by Job-related Attributes

Job-related Attributes	Pay Satisfaction
Current Position	
Manager	2.85
Executive Chef	2.80
Director/Associate Director	2.85
Supervisor	2.96
Coordinator	3.02
President/Vice Pres.	2.94
Dean/Associate Dean	2.75
Other	2.84
F Value	.253
P Value	.971
Work Experience in This College/University	
Less than 5 years	2.83
5-10 years	2.82
11-15 years	2.80
16-20 years	2.98
21-25 years	2.74
26-30 years	2.92
Above 30 years	2.88
F Value	1.094
P Value	.365
Experience in the Foodservice Industry	
Less than 5 years (group 1)	2.83
5-10 years (g 2)	2.79
11-15 years (g 3)	2.97
16-20 years (g 4)	2.98
21-25 years (g 5)	2.78
26-30 years (g 6)	2.88
Above 30 years (g 7)	2.77
F Value	1.591
P Value	.148
Univ. Foodservice Operations Open Hours	
7 days a week	2.85
6 days a week	2.78
5 days a week	2.91
Other	2.72
F Value	.329
P Value	.805
Type of Hours that the Establishment is Open	
Bkfast & Lunch Hours only	3.08
Lunch & Dinner Hours only	2.89
B, L, & D But do not stay open 24 hours	2.85
Open 24 hours	2.90
Other	2.84
F Value	.201
P Value	.938

TABLE 25

Pay Satisfaction by Job-related Attributes (continued)

Job-related Attributes	Pay Satisfaction
Hours Work between 6:00 a.m.-6:00 p.m. Weekly	
Less than 40 hours	2.84
40-45 hours	2.82
46-50 hours	2.82
51-55 hours	2.92
56-60 hours	2.99
Above 60 hours	2.75
F Value	.924
P Value	.465
Hours btw 6:00 p.m. - 6:00 a.m. During Weekends	
0 hour	2.84
1-10 hours	2.87
11-20 hours	2.78
Above 20 hours	2.75
F Value	.404
P Value	.750
Hours Work on Weekends (i.e., Sat. & Sun.) Monthly	
0 hour	2.87
1-10 hours	2.81
11-20 hours	3.01
21-30 hours	2.83
31-40 hours	2.78
Above 40 hours	2.78
F Value	1.805
P Value	.111

Research Questions and Examinations

The principal concern of this study was to examine the relationships between pay satisfaction, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave, in the college and university foodservice industry. To analyze the relationships several correlation coefficients between pay satisfaction, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave were computed and presented in Table 26.

Research Question 1: Is there a relationship between the Work-Family Conflict (WFC) and role conflict among the college and university foodservice managers?

Testing to address question one examined whether there is a relationship between four types of work-family conflict and role conflict. According to Table 26, statistically significant relationships were found for all four types of WFC ("Behavioral Interference from Dual Direction", "Time and Strain Interference from Family", "Time Interference from Work", and "Strain Interference from Work") and were positively related to role conflict (r= .274, .266, .192, and .287 respectively, $p<.05$).

Research Question 2: Is there a relationship between the Work-Family Conflict (WFC) and role ambiguity among the college and university foodservice managers?

This question investigated whether there was a relationship between four types of work-family conflict and role ambiguity. The correlation results showed that all four types of work-family conflicts ("Behavioral Interference from Dual Direction", "Time and Strain Interference from Family", "Time Interference from Work", and "Strain Interference from Work") were statistically significant positively related to role ambiguity (r=.360, .251, .266, and .387 respectively, $p<.05$).(see Table 26).

Research Question 3: Is there a relationship between the Work-Family Conflict (WFC) and work schedule among the college and university foodservice managers?

Testing for question three investigated the relationship between four types of work-family conflict and the nature of work hours in terms of calculating total hours worked per week, total night hours worked per week (from 6:00 p.m. to 6:00 a.m.), and monthly weekend hours worked (i.e., Saturdays and Sundays). Table 26 shows that there were statistically significant relationships between "Behavioral Interference from Dual Direction" and both "Hours Work between 6:00 a.m.-6:00 p.m. Weekly" (r=.190, $p<.05$) and "Hours Work on Weekends (i.e., Sat. & Sun.) Monthly" (r=.150, $p<.05$). Statistically significant but rather low relationships were also found between "Time and Strain Interference from Family" and both "Hours Work between 6:00 p.m.-6:00 a.m. during Weekends" (r=.101, $p<.05$) and "Hours Work on Weekends (i.e., Sat. & Sun.) Monthly"

(r=.105, p<.05). In addition, Time Interference from Work" was positively related to all three types of work hour, "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (r=.298, p<.05), "Hours work between 6:00 p.m. to 6:00 a.m. during weekends" (r=.293, p<.05), and "Hours work on weekends (i.e., Sat. & Sun.) monthly" (r=.376, p<.05). Similarly, "Strain Interference from Work" was also positively related to all three types of work hours, "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (r=.297, p<.05), "Hours work between 6:00 p.m. to 6:00 a.m. during weekends" (r=.109, p<.05), and "Hours work on weekends (i.e., Sat. & Sun.) monthly" (r=.150, p<.05).

Research Question 4: Is there a relationship between the Work-Family Conflict (WFC) and pay satisfaction among the college and university foodservice managers?

The correlation results (see Table 26) showed that there was statistically significant relationship between "Strain Interference from Work" and "Pay Satisfaction" (r=.107, p<.05).

Research Question 5: Is there a relationship between role conflict and intention to leave the current job/organization?

Question five investigated the relationship between role conflict and intention to leave. According to Table 26, there was a statistically significant positive relationship between role conflict and intention to leave (r=.464, p<.05).

Research Question 6: Is there a relationship between role ambiguity and intention to leave the current job/organization?

The test for this question investigated whether there was a relationship between role ambiguity and intention to leave. Table 26 shows that there was a statistically significant positive relationship between role ambiguity and intention to leave (r=.368, $p<.05$).

Research Question 7: Is there a relationship between work schedule and intention to leave the current job/organization?

This question investigated whether there was a relationship between three types of work hours, total work hours, weekend work hours, and night work hours and intention to leave. Table 26 indicates that all three types were statistically significant related to intention to leave. "Hours work on weekends (i.e., Sat. & Sun.) monthly" was positively related to intention to leave (r=.212, p<.05). Intention to leave also was positively but rather low related to hours work between 6:00 a.m. to 6:00 p.m. weekly (r=.180, $p<.05$), and hours work between 6:00 p.m. to 6:00 a.m. during weekends (r=.122, $p<.05$).

Research Question 8: Is there a relationship between pay satisfaction and intention to leave the current job/organization?

The test for this question investigated whether there was a relationship between pay satisfaction and intention to leave. Table 26 shows that there was no statistically significant relationship between pay satisfaction and intention to leave.

Research Question 9: Is there a relationship between the WFC and intention to leave the current job/organization?

Testing for question nine investigated the relationship between four types of work-family conflict and intention to leave. According to Table 26, all four types of work-family conflicts ("Behavioral Interference from Dual Direction", "Time and Strain Interference from Family", "Time Interference from Work", and "Strain Interference from Work") were statistically significant positively related to intention to leave (r= .256, .256, .261, and .338 respectively, $p<.05$).

TABLE 26

Correlations between Variables: Work-Family Conflict (WFC1[a], WFC2[b], WFC3[c], WFC4[d]), Role Conflict (RC), Role Ambiguity (RA), Pay Satisfaction (PS), Work Schedule (WS1[e], WS2[f], WS3[g])), and Intention to Leave (ITL)

	WFC1	WFC2	WFC3	WFC4	RC	RA	PS	WS1	WS2	WS3	ITL
WFC1	1										
WFC2	.456*†	1									
WFC3	.270*†	.269*†	1								
WFC4	.435*†	.412*†	.605*†	1							
RC	.274*†	.266*†	.192*†	.287*†	1						
RA	.360*†	.251*†	.266*†	.387*†	.534*†	1					
PS	.031	.074	-.002	.107*	.017	.049	1				
WS1	.190*†	.039	.298*†	.297*†	.040	.192*†	.062	1			
WS2	.007	.101*	.293*†	.109*	.029	.073	-.027	.208*†	1		
WS3	.150*†	.105*	.376*†	.150*†	.098*	.119*†	-.031	.347*†	.569*†	1	
ITL	.256*†	.256*†	.261*†	.338*†	.464*†	.368*†	.048	.180*†	.122*	.212*†	1

*p<.05, † also significant at .001 level

Note:
a: Behavioral Interference from Dual Direction
b: Time and Strain Interference from Family
c: Time Interference from Work
d: Strain Interference from Work
e: Hours Work btw 6:00 a.m.-6:00 p.m. Weekly
f: Hours Work btw 6:00 p.m.-6:00 a.m. during Weekends
g: Hours Work on Weekends (i.e., Sat. & Sun.) Monthly

Research Question 10: What is the most influential factor in the college and university foodservice managers' WFC?

Research question ten explored that which factor is more useful in predicting the college and university foodservice managers' WFC among role conflict, role ambiguity, pay satisfaction, work scheduling. To test the hypothesis, a series of multiple regression procedures were used to investigate whether and to what extent the independent variables (role conflict, role ambiguity, pay satisfaction, work scheduling) exert significant influence on the dependent variable (WFC). The work scheduling was represented by three types of work hours: Hours work on weekends monthly, Hours work between 6:00 a.m. to 6:00 p.m. weekly, Hours work between 6:00 p.m. till 6:00 a.m. during weekends. Four types of WFC from the factor analysis ("Behavioral Interference from Dual Direction", "Time and Strain Interference from Family", "Time Interference from Work", and "Strain Interference from Work") were examined separately as the dependent variables in the analysis. Table 27 shows the results of regression analyses.

Table 27

Multiple regression analysis: Predicting Work-Family Conflict

Factors		Unstandardized Coefficients		Standardized Coefficients			Model Summary				Analysis of Variance		Collinearity Statistics
		B	St. Error	Beta	t-value	Sig.	R	R^2	Adjusted R^2	Std. Error	F	Sig.	VIF
DV:	Behavioral Interference from Mutual Direction						.419	.175	.163	1.155	13.807	.000**	
	(Constant)	1.454	.407		3.573	.000							
IV:	Role conflict	.140	.053	.145	2.633	.009							1.441
	Role ambiguity	.295	.064	.257	4.586	.000							1.482
	Pay satisfaction	.040	.107	.017	.368	.713							1.010
	Hours work between 6:00 a.m. to 6:00 p.m. weekly	.111	.055	.101	2.028	.043							1.182
	Hours work between 6:00 p.m. till 6:00 a.m. during weekends	-.248	.099	-.140	-2.510	.012							1.467
	Hours work on weekends monthly	.114	.049	.135	2.312	.021							1.616
DV:	Time and Strain Interference from Family						.343	.118	.104	1.034	8.675	.000**	
	(Constant)	1.197	.364		3.284	.001							
IV:	Role conflict	.177	.048	.212	3.705	.000							1.441
	Role ambiguity	.151	.058	.152	2.618	.009							1.482
	Pay satisfaction	.151	.096	.075	1.569	.117							1.010
	Hours work between 6:00 a.m. to 6:00 p.m. weekly	-.024	.049	-.026	-.494	.622							1.182
	Hours work between 6:00 p.m. till 6:00 a.m. during weekends	.065	.088	.042	.735	.463							1.467
	Hours work on weekends monthly	.030	.044	.042	.691	.490							1.616

Table 27

Multiple regression analysis: Predicting Work-Family Conflict
Continued

Factors		Unstandardized Coefficients		Standardized Coefficients			Model Summary				Analysis of Variance		Collinearity Statistics
		B	St. Error	Beta	t-value	Sig.	R	R^2	Adjusted R^2	Std. Error	F	Sig.	VIF
DV:	Time Interference from Work						.477	.228	.216	1.313	19.184	.000**	
	(Constant)	1.894	.463		4.093	.000							
IV:	Role conflict	.099	.061	.087	1.630	.104							1.441
	Role ambiguity	.213	.073	.158	2.916	.004							1.482
	Pay satisfaction	-.049	.122	-.018	-.402	.688							1.010
	Hours work between 6:00 a.m. to 6:00 p.m. weekly	.205	.062	.159	3.292	.001							1.182
	Hours work between 6:00 p.m. till 6:00 a.m. during weekends	.226	.112	.108	2.011	.045							1.467
	Hours work on weekends monthly	.226	.056	.229	4.052	.000							1.616
DV:	Strain Interference from Work						.485	.235	.223	1.255	19.987	.000**	
	(Constant)	.637	.442		1.440	.151							
IV:	Role conflict	.155	.058	.142	2.675	.008							1.441
	Role ambiguity	.361	.070	.278	5.164	.000							1.482
	Pay satisfaction	.211	.117	.080	1.808	.071							1.010
	Hours work between 6:00 a.m. to 6:00 p.m. weekly	.284	.060	.230	4.770	.000							1.182
	Hours work between 6:00 p.m. till 6:00 a.m. during weekends	.059	.107	.029	.547	.585							1.467
	Hours work on weekends monthly	-.003	.053	-.003	-.061	.952							1.616

**p<.01

Research Question 10a: What is the most influential factor in explaining the college and university foodservice managers' behavioral interference from both work and family direction?

The R^2 of the first part of this question employed the first type of WFC, "Behavioral Interference from Dual Direction" as the dependent variable, is .175, which indicates that approximately 18% of the variation of the dependent variable could be explained by the six factors combined. The significant *F*-ratio (*F*=13.807, *p*=.000) indicated that the results of the regression model could hardly have occurred by chance. Overall, the goodness-of-fit of the first model is satisfactory. Six factors, "Role Conflict" (*t*=2.633, *p*<.05), "Role Ambiguity) (*t*=4.586, *p*<.05), "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (*t*=2.028, *p*<.05), "Hours work between 6:00 p.m. till 6:00 a.m. during weekends" (*t*=2.510, *p*<.05), and "Hours work on weekends monthly" (*t*=2.312, *p*<.05), were each found to be significant variables in the model, but the third variable, "Pay Satisfaction", was not statistically significant (*p*=.713).

Based on the standardized coefficient of each independent variable, the impact of each variable on the dependent variable can be assessed. From Table 27, it could be noted that the factor of "Role Ambiguity" (ß=.257) was the most influential factor in explaining behavioral interference from both work and family direction. "Role Conflict" (ß=.145), "Hours work between 6:00 p.m. till 6:00 a.m. during weekends" (ß=-.140), "Hours work on weekends monthly" (ß=.135) and "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (ß=.101) follow the importance. Since "Pay Satisfaction" did not turn out to be significant, the coefficient's value is of little importance. In addition, the direction of the

coefficients was consistent with prior expectations except that "Hours work between 6:00 p.m. till 6:00 a.m. during weekends" was negatively related to "Behavioral Interference from Dual Direction", and "Pay Satisfaction" was positively related to "Behavioral Interference from Dual Direction". There was not a high degree of collinearity among the independent variables because all variance inflation factor (VIF) for all factors were between 1.010 and 1.616, which were less than 10.0.

Research Question 10b: What is the most influential factor in explaining the college and university foodservice managers' time and strain interference from family?

According to Table 27, the R^2 of the second part of this question employed "Time and strain interference from family" as the dependent variable is .118, which indicates that approximately 12% of the variation of "Time and strain interference from family" could be explained by the six factors combined. The significant *F*-ratio (F=8.675, p=.000) indicated that the results of this regression model could hardly have occurred by chance. The low percentage indicated that there may be other factors explaining the time and strain interference from family in the model. Of the six independent variables, two factors, "Role Conflict" (t=3.705, p<.05), "Role Ambiguity" (t=2.618, p<.05), were each found to be significant variables in the model. From the results, "Role Conflict" (ß=.212) carried the heaviest weight in explaining the overall level of time and strain interference from family, followed by "Role Ambiguity" (ß=.152). However, "Pay Satisfaction" (ß=.075, p=.117), "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (ß=-.026, p=.622), "Hours work between 6:00 p.m. till 6:00 a.m. during weekends" (ß=.042, p=.463) and "Hours

work on weekends monthly" (ß=.042, p=.691) appeared not to be statistically significant in predicting the conflict of "Time and Strain Interference from Family" in the regression model. The direction of one of the coefficients was inconsistent with prior expectations: "Hours work between 6:00 a.m. till 6:00 p.m. weekly" was negative, and "Pay Satisfaction" was positive.

Research Question 10c: What is the most influential factor in explaining the college and university foodservice managers' time interference from work?

Table 27 shows the results of regression analysis. The R^2 of the third part of the question taken "Time Interference from Work" as the dependent variable is .228, which indicates that approximately 23% of the variation of the dependent variable, "Time Interference from Work", could be explained by the six factors combined. The significant *F*-ratio (*F*=19.184, *p*=.000) indicated that, overall, the goodness-of-fit of the model is satisfactory. Four factors, "Role Ambiguity" (*t*=2.916, *p*<.05), "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (*t*=3.292, *p*<.05), "Hours work between 6:00 p.m. till 6:00 a.m. during weekends" (*t*=2.011, *p*<.05) and "Hours work on weekends monthly" (*t*=4.052, *p*<.05), were each found to be significant variables in the model.

Of the four factors, "Hours work on weekends monthly" (ß=.229) carried the heaviest weight in explaining the overall effective level of time interference from work derived from work-family conflict, followed by "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (ß =.159), "Role Ambiguity" (ß =.158), and "Hours work between 6:00 p.m.

till 6:00 a.m. during weekends" (ß =.109). The direction of the coefficients was consistent with prior expectation.

Research Question 10d: What is the most influential factor in explaining the college and university foodservice managers' strain interference from work?

According to Table 27, the R^2 of the fourth analysis employed "Strain Interference from Work" as the dependent variable is .235, which indicates that approximately 24% of the variation of "Strain Interference from Work" could be explained by the six independent variables together. The significant *F*-ratio (*F*=19.987, *p*=.000) indicated that, the satisfactory level of the "Goodness-of-Fit" of this regression model. Of the six independent variables, three factors, "Role Conflict" (*t*=2.675, *p*<.05), "Role Ambiguity" (*t*=5.164, *p*<.05), and "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (*t*=4.770, *p*<.05) were each found to be significant variables in this analysis.

The standardized ß was used to investigate the relative importance of each of the independent variables in contributing to the work-family conflict circumstance. From the results, "Role Ambiguity" (ß =.278) carried the heaviest weight in explaining the strain interference from work, followed by "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (ß =.230) and "Role Conflict" (ß =.142). These factors were the significant determinant factor in predicting the foodservice managers' strain interference from work, particularly in the college and university foodservice environment. However, the direction of the coefficients was inconsistent with prior expectations: "Pay Satisfaction" was positive, "Hours work on weekend monthly" was not negative.

Research Question 11: What is the most influential factor in the college and university foodservice managers' intention to leave the current job/organization?

Research question eleven explored that, among role conflict, role ambiguity, pay satisfaction, work scheduling, which factor is more useful in predicting the college and university foodservice managers' intention to leave the current job/organization. A multiple regression analysis was used to determine whether and to what extent the independent variables (role conflict, role ambiguity, pay satisfaction, work scheduling) bring significant influence on the dependent variable (intention to leave). The work scheduling was represented by three types of work hours: hours work on weekends monthly, hours work between 6:00 a.m. to 6:00 p.m. weekly, hours work between 6:00 p.m. till 6:00 a.m. during weekends.

The results of regression analysis are presented in Table 28. The R^2 of the model is .286, which indicates that approximately 29% of the variation of the inclined behavior of intention to leave the current job could be explained by the six factors combined. The significant *F*-ratio (F=26.001, p=.000) indicated that the results of the regression model could hardly have occurred by chance. Of the six independent variables, three factors, "Role Conflict" (t=7.351, p<.05), "Role Ambiguity" (t=2.910, p<.05), and "Hours work between 6:00 a.m. to 6:00 p.m. weekly" (t=2.058, p<.05) were each found to be significant variables in this regression model.

The results showed that the three independent variables were significant determinants of college and university foodservice managers' overall intention to leave the current job. The standardized ß was used to investigate the relative importance of each of the independent variables in contributing to the intention to leave the current job

behavior. From the results, “Role Conflict” (ß =.378) carried the heaviest weight in explaining the intention to leave current job, followed by “Role Ambiguity” (ß =.152) and “Hours work between 6:00 a.m. to 6:00 p.m. weekly” (ß =.096). These factors were the significant determinant factor in predicting the foodservice managers’ intention to leave current job, particularly in the college and university foodservice environment. The direction of the coefficients was consistent with prior expectations except that “Pay Satisfaction” was positive related to “Intention to Leave”.

Table 28

Multiple regression analysis: Predicting Intention to Leave

Factors		Unstandardized Coefficients		Standardized Coefficients			Model Summary				Analysis of Variance		Collinearity Statistics
		B	St. Error	Beta	t-value	Sig.	R	R^2	Adjusted R^2	Std. Error	F	Sig.	VIF
DV:	Intention to leave						.535	.286	.275	1.275	26.001	.000**	
	(Constant)	.425	.449		.946	.345							
IV:	Role conflict	.433	.059	.378	7.359	.000							1.441
	Role ambiguity	.206	.071	.152	2.910	.004							1.482
	Pay satisfaction	.035	.119	.013	.291	.771							1.010
	Hours work between 6:00 a.m. to 6:00 p.m. weekly	.125	.061	.096	2.058	.040							1.182
	Hours work between 6:00 p.m. till 6:00 a.m. during weekends	.064	.109	-.028	.586	.558							1.467
	Hours work on weekends monthly	.104	.054	-.106	1.920	.056							1.616

**p<.01

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to determine if there were relationships between salary, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave, in the college and university foodservice industry. The results were intended to be used to garner a better understanding of what relationship, if any, exists between salary, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave. The research questions for this study were:

1. Is there a relationship between the Work-Family Conflict (WFC) and role conflict among the college and university foodservice managers?
2. Is there a relationship between the Work-Family Conflict (WFC) and role ambiguity among the college and university foodservice managers?
3. Is there a relationship between the Work-Family Conflict (WFC) and work schedule among the college and university foodservice managers?
4. Is there a relationship between the Work-Family Conflict (WFC) and pay satisfaction among the college and university foodservice managers?
5. Is there a relationship between role conflict and intention to leave the current job/organization?
6. Is there a relationship between role ambiguity and intention to leave the current job/organization?

7. Is there a relationship between work schedule and intention to leave the current job/organization?
8. Is there a relationship between pay satisfaction and intention to leave the current job/organization?
9. Is there a relationship between the WFC and intention to leave the current job/organization?
10. What is the most influential factor in the college and university foodservice managers' WFC?
11. What is the most influential factor in the college and university foodservice managers' intention to leave the current job/organization?

The population for this study was college and university foodservice managers. The sample of this study consisted of two-thousand-eight-hundred-seventy-five National Association of College and University Food Services (NACUFS) members (N=2875). This research used a self-administrated questionnaire disseminated by email/web-based forms to measure the specified variables as well as certain items to obtain demographic information. A pilot study was conducted (N=22) to assess the appropriateness, practicability, and reliability of the questionnaire. The questionnaires were distributed to university dining managers, supervisors, and assistant managers in Residential Life, at Oklahoma State University. In addition, to detect potential bias in the instructions or contents of the instrument, the questionnaire was distributed and verified by five faculty members, who specialized in the areas of food service, hospitality management, human resources, and research methods.

This study utilized a quantitative approach and a cross-sectional survey research design to answer the proposed research questions. This study employed a questionnaires developed based on previous research to collect the desired information. The questionnaire consisted of four sections: (1) Work-Family Conflict and Pay Satisfaction (2) Intention to Leave, (3) Inter-role Conflict, (4) and Demographic Information of College and University Foodservice Managers. A total of 457 surveys were returned for a 15.9% response rate. The number of usable responses was 442 for a 15.4% net response rate.

Summary of Demographic

The participating college and university foodservice managers in this study:

1. The percentage of each gender was about equally balanced (male 50.9%),
2. There were approximately 44% of the participants in the age group between 45 and 54 years old,
3. The majority of the participants were married (75.6),
4. The dominate ethnic group was Caucasian/White (94.4%),
5. Over half of the participants had four year college's degree (54.5%),
6. Approximately one-fourth of the participants had an annual income in the range of $40,001 to $50,000 (24.1%),
7. About one-third of the participants had two children for care-giving responsibilities (31.6%),

8. Most of the participants had no care-giving responsibilities for elder relative (77.5%),
9. Over 40% of the participants were director/associate director (42.5%),
10. Approximately one-fourth of the participants had 5 to 10 years of work experience in this college/university (27.4%),
11. Approximately one-fifth of the participants had 26 to 30 years of work experience in the foodservice industry (21.8%),
12. The majority of the participants worked for university foodservice operations which were open 7 days a week (89.7%),
13. Most of the participants worked for university foodservice operations which were offering breakfast, lunch, and dinner but did not stay open 24 hours (76.6%),
14. Over one-third of participants worked 45 to 50 hours between 6:00 a.m. to 6:00 p.m. weekly (34.5%),
15. Over one-half of the participant worked 1 to 10 hours between 6:00 p.m. till 6:00 a.m. during weekends (50.2%), and
16. Nearly one-third of participants worked 1 to 10 hours on weekends i.e., Saturdays and Sundays monthly (33.8%).

Summary of Findings

Work-Family Conflict (WFC)

The college and university foodservice managers appeared to have a moderately conservative perception concerning the WFC attributes. For instance, with a 7-point Likert scale where 1 is "strongly disagree" and 7 is "strongly agree", more than 50% of the managers showed negative responses for the following statements:

- Behaviors at work do not help me to be a better parent and spouse.
- Behavior that is effective and necessary for me at work would be counter-productive at home.
- The behaviors that work for me at home do not seem to be effective at work.
- The problem-solving behaviors I use in my job are not effective in resolving problems at home.
- Behavior that is effective and necessary for me at home would be counter-productive at work.
- The problem-solving behavior that works for me at home does not seem to be as useful at work.
- The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career.

In addition, more than 70% of the managers gave negative responses toward the following statements:

- Due to stress at home, I am often preoccupied with family matters at work
- I have to miss work activities due to the amount of time I must spend on family responsibilities
- Because I am often stressed from family responsibilities, I have a hard time concentrating on my work

- Tension and anxiety from my family life often weakens my ability to do my job.

Results suggest that the respondents in this study did not experience serious time-, strain-, and behavior-based conflict resulted from the direction of family to work (FWC). However, the respondents showed some time- and strain-based conflict coming from the direction of work to family:

- Work keeps me from family activities more than I like.
- The time I must devote to my job keeps me from participating equally in family responsibilities and activities.
- Miss family activities due to time spend on work.
- When I get home from work I am often too tired to anticipate in family responsibilities.
- When I get home from work I am often too tired to participate in family activities.

The results further indicated that the respondents experienced time-based conflict when they devoted their time to work place which makes it difficult to participate in family matters, and the strain-based conflict took place when the respondents strain experienced in the work role which intrudes into and interferes with participation in family role.

Regarding gender difference male respondents experienced more "Behavioral Interference from Dual Direction" than female respondents; however, female respondents were more affected by "Strain Interference from Work" than male respondents were. In addition, respondents with different educational levels also revealed significant difference toward "Behavioral Interference from Dual Direction" and "Time Interference from Work". There was a significant difference that existed between respondents who had

degree from two year colleges and those in a four year college degrees and master degrees toward “Behavioral Interference from dual Direction” and “Time Interference from Work”.

Furthermore, results indicate that respondents who had two elder relatives for care-giving responsibilities experienced more “Strain Interference from Work” than those who had none or one elder relative for care-giving responsibilities. This result inferred that respondents who had two elder relatives for care-giving responsibilities were expected to devote a considerate amount of energy into their family responsibilities which were impeded after they came back from emotionally stressed work environment.

Various income levels also being a factor to reveal the perception toward WFC. Respondents with income level of over $80,000 experienced less with “Time and Strain Interference from Family” than those with income level from $30,000 to $60,000. It can be inferred that those with mid-level income might hold a relatively complicated job responsibilities which required more time and energy devoted into their job thus experienced time- and strain-based interferences from family to work. In addition, those with high income level of over $80,000 did not show much of “Strain Interference from Work” than respondents with less income. This might imply that this group of respondents was equipped with the ability of releasing their stresses from work since the same explanation also applicable to explain the result that respondents with income level of over $80,000 experienced less role conflict than respondents with income level from $30,000 to $50,000.

In addition, WFC has revealed significant relationships with various work schedules which was calculated by three types of work hours. Behavioral interference from dual

direction was significant related with total number of hours between 6:00 a.m. to 6:00 p.m. weekly and total number of work hours on weekends monthly. These results showed that the more work hour the respondents had during weekdays and weekends the more behavioral-based conflict from both work and work they experienced. It was apparently that the more hours taken by work place the less efficiency the respondents experienced in dealing with balancing between work and family behaviorally.

In addition, the more of the number of work hour during weekend's evenings and the total number of work hour during weekend monthly one must spend at a job, the more one will have to sacrifice time with family and friends; therefore, not surprisingly, one will experience "Time and Stain Interference from Family." Furthermore, both time and strain interferences from work were positive significantly related with all three types of work hours. Clearly, the odd and long hours revealed an important message related to WFC among college and university foodservice managers.

The result also indicated that the respondents experienced WFC also encountered role conflict and role ambiguity which was also found supported in Boles & Babin 's (1996) and Greenhaus & Beutell's (1985) studies. It was anticipated that WFC occurs when one's work-related role interferes with his/her family demand and is accentuated by job-related role stress; therefore, WFC can potentially interfere several work-related role stress, such as role conflict and role ambiguity.

After examining the relationship between pay satisfaction and other variables, all four types of WFC, role conflict, role ambiguity, three types of work scheduling, and intention to leave, surprisingly, a positive and significant relationship was only found between "pay satisfaction" and "Strain Interference from Work." The direction of the

relationship was inconsistent with prior expectations. Further investigation is needed for the unexplainable phenomenon.

Furthermore, there were statistically significantly positive relationships between all four types of WFC and intention to leave. Thus, administrators need to be aware of the critical role that conflicts with work and family place on the employee.

One goal of this study was to determine the most influential factor in the college and university foodservice managers' WFC. Each type of WFC, which were "Behavioral Interference from Dual Direction," "Time and Strain Interference from Family," "Time Interference from Work," and "Strain Interference from Work," was utilized separately as the dependent variable in the regression analysis. And the independent variables were role conflict, role ambiguity, pay satisfaction and three types of work hours. The results revealed that, except for pay satisfaction, all five variables, which were role conflict, role ambiguity, pay satisfaction and three types of work hours, were found to be sensitive to "Behavioral Interference from Dual Direction." In addition, within these five outcome variables, "Role Ambiguity" was the most influential factor in explaining behavioral interference from both work and family direction. Intuitively, this result should not be surprising since the more one has behavioral interference from both work and family at directions, the more one will suffer role uncertainty concerning appropriate actions in both work and family situations.

As for "Time and Strain Interference from Family," approximately 12% of the variation of "Time and strain interference from family" could be explained by the six factors combined. The low percentage indicated that there may be other factors explaining the time and strain interference from family in the model. Of the six

independent variables, two factors, “Role Conflict” and “Role Ambiguity” were found to be significant variables in the model.

Regarding “Time Interference from Work”, of the six independent variables, four factors, “Role Ambiguity,” and all three types of work hours were found to be significant variables in the model. Furthermore, total number of work hours on weekends (i.e., Saturday and Sunday) monthly was the most influential factor in explaining time interference from work. Not surprisingly, one could explain for this finding that managers who have more weekend work hours will experience more time conflict between work and family since weekends are traditionally when most people are off the job and with their family and friends.

Employed “Strain Interference from Work” as the dependent variable, the result indicated that “Role Conflict,” “Role Ambiguity,” and “Hours work between 6:00 a.m. to 6:00 p.m. weekly” were each found to be significant variables in this analysis. Of these three significant indicators, “Role Ambiguity” was the most influential factor in explaining the college and university foodservice managers’ “Strain interference from work.” It can be inferred that role ambiguity can occur because that employees were not clear concerning the amount of authority they have, or because they did not know others’ job performance expectations, which could result in a stressful work environment (Bedeian, Burke, & Moffett, 1988; Williams & Alliger, 1994) and, in turn, led to experiencing “Strain interference from work.”

Role Conflict

The results showed that college and university foodservice managers with different demographic profiles and job-related characteristics revealed significant differences toward "Role Conflict" among different income levels, years of work experience in foodservice industry, and the total number of hours work on weekend monthly.

The respondents with income level of over $80,000 were less likely experiencing "Role Conflict" than both with income levels of $30,000 to $40,000 and $40,001 to $50,000. This might imply that this group of respondents was better equipped with the ability of utilizing their accumulated work experiences to cope with their role expectations.

In addition, the same implication may also be applicable to explain the result the respondents who had 11-15 years of work experience in the foodservice industry experienced higher level of "Role Conflict" than those had more than 20 years of work experience in the foodservice industry.

Furthermore, the analysis results also showed that college and university foodservice managers who had above 40 hours work on weekends monthly were more likely experiencing "Role Conflict" than those managers with 1-10 hours. This result inferred that if the weekend hours add up to the point where too much time on the job which will contribute to role conflict.

Role Ambiguity

Managers who had five children for care-giving responsibilities demonstrated higher "Role Ambiguity" than those who had three children for care-giving responsibilities. It apparently showed that the effort and attention needed for five children demonstrated strong enough influences in role clarification at work place.

In addition, it was found that managers who had worked 56-60 hours between 6:00 a.m. to 6:00 p.m. weekly experienced more "Role Ambiguity" than managers with 40-50 hours did. It revealed that managers who had worked 56-60 hours between 6:00 a.m. to 6:00 p.m. weekly, which means managers needed to work 11-12 hours per day, encountered the distinct role ambiguity than managers worked 8-10 hours per day. In order to minimize "Role Ambiguity" the managers might experience, there is a need to re-examine the appropriate work hours required in the current jobs.

Intention to Leave

College and university foodservice managers with different demographic profiles and job-related characteristics showed significant differences toward "Intention to Leave" among different age groups, various university foodservice operations hours, number of hours worked between 6:00 a.m. to 6:00 p.m. weekly, and the total number of hours worked on weekend monthly.

The study showed that college and university foodservice managers who were in the age of 25-34 were more inclined to intent to leave the current job than those managers

who were in the age of 55-64. This result inferred that managers in the aged of 25-34 were possibly in the earlier stage of a marital family life which may be characterized by strong pressures from both work and family domains, which, in turn, may lead to maintain a sustainable family life by withdrawing from their job. Administrators in college and university might need to implement family-friendly polices, especially gear toward to managers in the aged of 25-34, which might be concerned with the opportunities of career advancement, establishment of child-care program or child care referral service, and implementation of work scheduling flexibilities.

In addition, managers who worked for university foodservice operations which open 5 days a week were less likely to leave the current job than were managers with other non-clarified open hours. Since 5-day was the norm for weekly work, odd working hours may result in an unflavored work package which may experience employees' intention to leave the current job.

Regarding work hours, not surprisingly, managers who had over 60 hours work between 6:00 a.m. to 6:00 p.m. weekly were more likely demonstrating an intention to leave the current job than managers with 40-45hours and 46-50 hours. Therefore, excessive work hours between 6:00 a.m. to 6:00 p.m. weekly, especially more than 12 hours per day, will strongly associate with managers' intention to leave.

In addition, managers who had 11-20 hours work between 6:00 p.m. to 6:00 a.m. during weekends more likely revealed an intention to leave the current job than those who had 0 hour work between 6:00 p.m. to 6:00 a.m. during weekends.

Furthermore, managers who had above 40 hours work on weekends per month more likely to demonstrate an intention to leave the current job than were managers with

0 and 1-10 hours. The result also indicated that managers who had 11-20 hour work on weekends per month were perceived to have more agreement on “Intention to Leave” than those who had 1-10 hours work on weekends monthly. The above results indicated that the more weekend hours the managers had the more likely an inclination to leave the current job the managers showed.

The result of the current study also revealed that of the six independent variables, three factors, “Role Conflict”, “Role Ambiguity”, and “Hours work between 6:00 a.m. to 6:00 p.m. weekly” were each found to be significant variables in predicting “Intention to Leave”. In addition, “Role Conflict” was the most influential factor in predicting the foodservice managers’ intention to leave current job, particularly in the college and university foodservice environment. This inferred that “Role Conflict” could lead to “Intention to Leave” the current job and that “Hours work between 6:00 a.m. to 6:00 p.m. weekly” played an important role in both role ambiguity and intention to leave the current job. Clear then, the issue of work scheduling cannot be ignored by either the researcher or the practitioner.

Implications

The primary purpose in the present study was to explore if there were relationships between pay satisfaction, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave, in the college and university foodservice industry. In general, there were significant and positive relationships between these studied variables except pay satisfaction.

This study suggests that those managers in college and university foodservice industry who experienced WFC would also endure role conflict. In particular, this study showed that managers who faced psychological strain from work, one type of WFC such as tension, anxiety, fatigue, depression, apathy, and irritability, would show conflict within the work role which finding also was supported by Jones & Butler (1980) and Kopelman, Greenhaus, & Connolly (1983). In addition, college and university foodservice managers who experienced greater psychological strain from work also felt more uncertainty about their role.

Positive relationships were found between all four types of WFC and various work hours. In particular, total work hours between 6:00 a.m. to 6:00 p.m. weekly and total hours worked on weekends (i.e., Saturday & Sunday) monthly have significant relationships with WFC. This should be of notice to researcher and practitioners since all three types of work hours were significant and positive related to intention to leave.

Since role conflict is a predictor of intention to current job and weekend work hours impacted role conflict, the implication can be inferred that the amount of weekend work hours has both a direct and indirect impact on intention to leave; therefore, whether the

amount of weekend work hours influence intention to leave the current job at all should be of special interest to administrators of college and university foodservice industry.

This finding also implied that college and university foodservice practitioners should be concerned with job related issues such as job responsibilities, autonomy, work scheduling, and family supportive practices offered by human resource department (HSD).

Furthermore, in addition to family supportive practices, university administrators should recognize the need of various support systems for emotional support and encouragement, sine the importance of carefully choosing one's words is well-known to business managers and leaders and they can become too guarded in sharing their true feelings and concerns. A healthy and useful means is in a need to let them to vent these frustrations out as bottling up these feelings too often can lead to stress and burnout.

Conclusion

For the college and university foodservice industry, information resulting from this research can be taken to evaluate and establish preventive or corrective actions in regard to role related factors such as work overload. Moreover, since role conflict and role ambiguity were important factors in increasing the probability that college and university foodservice managers will experience WFC and perceive the desirability of leaving the current job, the managers should be assured that each role occupant has sufficient information to carry out his or her job successfully and that the expectations received by a role occupant do not need incompatible behavior in the same job.

Furthermore, regarding various work scheduling, since total number of hours worked during weekdays and hours worked during weekends monthly were found to be related to behavioral-,time-, and strain-based interference from work, and intention to leave the college and university foodservice industry should assess the appropriate working hours weekly and monthly for a manager to take.

The total number of hours a manager must work must be kept within an acceptable level. This level will differ since some managers will be able to tolerate more hours than others. Lang (1991) suggested that a good starting point in arriving at an acceptable level might be to look at what some of the restaurant industry leaders are doing by seeking to keep work hours under 50 hours. While most managers in foodservice industry realize that working nights or weekends is the norm in the industry, the managers are concerned about whether the night and weekend hours add up to the point where too much time on the job contributes to WFC.

In conclusion, the foodservice industry is suffering high turnover rate and lack of available labor force. The noncommercial foodservice industry is no exception. Schuster (2005) stated that "management companies alone are short 5,000 entry and mid-level onsite managers." (p.32). Furthermore, the costs of managerial turnover are even higher since their skills and knowledge are difficult to replace (Cascio, 1991). Therefore, it is significant that to realize the factors which are related to employees' intention to leave the current job and further to take preventive or correctional actions to adjust the factors that trigger the chain of psychological states that lead to intention to leave.

Recommendations

Based on the findings of this study, the following recommendations are provided for consideration:

1) College and university practitioners might need to re-examine job-related tensions which is "a direct function of role conflict (direct conflicts in which role obligations must be reconciled) and role ambiguity (lack of role clarity) (Bedeian & Armenakis, 1981, p. 419).
2) College and university human resource departments (HRD) should attempt to establish and strengthen the supportive mechanism within the organization since as Firth et al. (2004) stated that "supervisor support……can reduce the impact of stressors on psychological states and intention to quit (p. 181)." For instance, after finding out the specific causes of turnover, human resource department may include well-designed and implemented human relations training for supervisors, and seeking a specific turnover goal for the organization.
3) The administration of college and university could consider reducing the operating hours of the foodservice facilities. Benefits of reducing operating hours have been studied by Bregar (1988) and include reduced turnover of managers and an increase in restaurant profits.
4) College and university practitioners might need to implement family-friendly polices such as dependent-care flexible spending account, elder and child care referral services, and what is more important is that middle managers and line supervisors are involved in the change effort and be able to communicate policies

effectively in a holistic fashion. In fact, several studies reported that flexible arrangements positively affect productivity, morale, and employee retention (Paris, 1990).

5) In order to reduce the degree of WFC the human resource administrator of college and university could consider providing employee with flexible scheduling and work hours in order to facilitate work-family integration. Reasonable work hours per week should be evaluated. The work hours during weekends should be limited to an acceptable level between employees and organizations.
6) The administration of college and university could consider providing a web site designed as a way to let the employees to vent frustrations, post views and opinions. It should be therapeutic in concept and censorship free. In addition, this site is open-minded. Any subject may be discussed, vented at, praised, or just mentioned in passing.
7) College and university practitioners could design and offer stress reduction program to assist employees to reduce worry and anxiety, and cope with their stress. In addition, a complimentary counseling service should be made available to employees that professional advisors confidentially listen and give the employees a chance to vent frustration, anger and doubt, and may further give them good advice when wanted.

Future Research

This study explored the relationship between pay satisfaction, work scheduling, role conflict, role ambiguity, work-family conflict and intention to leave in the context of college and university foodservices. First, the study determined whether there were significant relationships existed between these desired variables. Next, this study aimed to locate the most influential factors in predicting Work-Family Conflict (WFC) and intention to leave. The findings of the research led to several recommendations for future research.

First, it is suggested to consider applying qualitative approach to develop an initial understanding the variables associated with WFC and propensity to leave. Since quantitative analysis could not provide a more in-dept analysis of the phenomena of attitudinal changes of college and university foodservice managers regarding work role related perceptions, role pressures from work and family domain, and the quitting intention related behavior, qualitative research could be an effective approach in the situation.

Second, a future study might replicate this study with different foodservices segments such as other noncommercial foodservices as well as commercial foodservice to see if comparable consequences could be obtained. In addition, a study might apply the same conceptual framework to different populations within the foodservice industry for various foodservice labor force comparison.

Third, although the current model accounts for approximately 29% of the variability in intention to leave, it is important to acknowledge that there may be other factors that

cause individuals quit or stay their jobs. Such factors include organizational variables, such as size of the organization or unit, organizational commitment, fringe and benefit, and job satisfaction, and individual difference variables, such as job tenure.

Finally, in this study significant relationships were found among the purposed variables; however, cross-lagged correlations are not appropriate for testing causal inferences but for observing correlation between two variables. In other words, "that two variables are correlated only because each is related to a third variable, which may be unknown to the researcher and unmeasured (Billings & Wroten, 1978, p. 679)." To address this circumstance, future research could reinvestigate the relationships among these variables through the use of path analysis. Path analysis is acknowledged as an appropriate and effective "technique for testing the consequences of proposed causal relationships among a set of variables (Billings & Wroten, 1978, p. 677)."

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APPENDIX A: QUESTIONNAIRE

Please circle the response that best describes the level of your agreement with each statement related to your current position.

1=Strongly Disagree 2=Disagree 3=Somewhat Disagree 4=Neutral 5=Somewhat Agree 6=Agree 7=Strongly Agree

	Statement	Strongly Disagree → Strongly Agree						
1	My work keeps me from my family activities more than I would like.	1	2	3	4	5	6	7
2	The time I must devote to my job keeps me from participating equally in family responsibilities and activities.	1	2	3	4	5	6	7
3	I have to miss family activities due to the amount of time I must spend on work responsibilities.	1	2	3	4	5	6	7
4	When I get home from work I am often too tired to participate in family responsibilities.	1	2	3	4	5	6	7
5	The behaviors I use that make me effective at work do not help me to be a better parent and spouse.	1	2	3	4	5	6	7
6	The time I spend on family responsibilities often interferes with my work responsibilities.	1	2	3	4	5	6	7
7	Due to stress at home, I am often preoccupied with family matters at work.	1	2	3	4	5	6	7
8	The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career.	1	2	3	4	5	6	7
9	When I get home from work I am often too tired to participate in family activities.	1	2	3	4	5	6	7
10	I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.	1	2	3	4	5	6	7
11	Due to all the pressures at work, sometimes when I come home I am too stressed to do things I enjoy.	1	2	3	4	5	6	7
12	The behaviors that work for me at home do not seem to be effective at work.	1	2	3	4	5	6	7
13	I have to miss work activities due to the amount of time I must spend on family responsibilities.	1	2	3	4	5	6	7
14	Because I am often stressed from family responsibilities, I have a hard time concentrating on my work.	1	2	3	4	5	6	7
15	Tension and anxiety from my family life often weakens my ability to do my job.	1	2	3	4	5	6	7
16	The problem-solving behaviors I use in my job are NOT effective in resolving problems at home.	1	2	3	4	5	6	7
17	Behavior that is effective and necessary for me at work would be counter-productive at home.	1	2	3	4	5	6	7
18	Behavior that is effective and necessary for me at home would be counter-productive at work.	1	2	3	4	5	6	7
19	I feel I am being paid a fair amount for the work I do.	1	2	3	4	5	6	7
20	Raises are too few and far between.	1	2	3	4	5	6	7
21	I feel unappreciated by the organization when I think about what they pay me.	1	2	3	4	5	6	7
22	The problem-solving behavior that works for me at home does not seem to be as useful at work.	1	2	3	4	5	6	7
23	I feel satisfied with my chances for salary increases.	1	2	3	4	5	6	7

Please indicate your level of agreement with the following statements.

1=Strongly Disagree 2=Disagree 3=Somewhat Disagree 4=Neutral 5=Somewhat Agree 6=Agree 7=Strongly Agree

	Statement	Strongly Disagree → Strongly Agree						
1	I would turn down a job offer from another company if it came tomorrow.	1	2	3	4	5	6	7
2	As far as I can see ahead, I intend to stay with the current organization.	1	2	3	4	5	6	7
3	It is very important for me to spend my career in the current organization.	1	2	3	4	5	6	7
4	I plan to be with my current organization FIVE YEARS from now.	1	2	3	4	5	6	7

Listed below is a series of statements that represents the working condition existed for you in the organization you work. Please indicate your level of agreement with each statement

1=Strongly Disagree 2=Disagree 3=Somewhat Disagree 4=Neutral 5=Somewhat Agree 6=Agree 7=Strongly Agree

	Statement	Strongly Disagree → Strongly Agree						
1	I feel certain about how much authority I have.	1	2	3	4	5	6	7
2	I have clear, planned goals and objectives for my job.	1	2	3	4	5	6	7
3	I have to do things that should be done differently.	1	2	3	4	5	6	7
4	I know that I have divided my time properly.	1	2	3	4	5	6	7
5	I often receive assignments without the manpower to complete it.	1	2	3	4	5	6	7
6	I know what my responsibilities at work are.	1	2	3	4	5	6	7
7	I often have to go around a rule or policy in order to carry out an assignment.	1	2	3	4	5	6	7
8	I work with two or more groups who operate quite differently.	1	2	3	4	5	6	7
9	I know exactly what is expected of me.	1	2	3	4	5	6	7
10	I receive incompatible requests from two or more people.	1	2	3	4	5	6	7
11	I do things that are apt to be accepted by one person and not accepted by others.	1	2	3	4	5	6	7
12	I receive an assignment without adequate resources and materials to execute it.	1	2	3	4	5	6	7
13	The explanation for my assignment is clear of what has to be done.	1	2	3	4	5	6	7
14	At work, I often work on unnecessary things.	1	2	3	4	5	6	7

The final questions are for classification purpose only…

Gender: _____ Male _____ Female

Marital Status: Please check only one

1. Single_____ 2. Married_____ 3. Separated_____

4. Divorced_____

In what year were you born? _____

Highest education completed:

1. High school _____ 2. Two year college _____ 3. Four year college_____

4. Master's degree_____ 5. Doctorate degree_____ 6. Unwilling to answer_____

How long have you worked for this university? _____ years _____ months

How long have you worked **in the foodservice industry?** _____ years _____ months

How many elder relatives (including parents) do you have care-giving responsibilities for? _____

As best as you can calculate, how many of those hours do you usually work **between 6:00 A.M. till 6:00 P.M.** ***WEEKLY***?

_____ hours.

How many children do you have care-giving responsibilities for? _____ (Can include any type of family or non-family relationships.)

Ages of these children: _____ _____ _____ _____ _____ _____ _____ _____

What is your job position (job title)? _____

Your university foodservice operations open:

a. _____7 days a week?
b. _____6 days a week?
c. _____5 days a week?
d. _____Other (please specify) _____

Which answer BEST describes the type of hours that your establishment is open?

a. _____Breakfast and lunch hours only.
b. _____Lunch and dinner hours only.
c. _____Breakfast, lunch, and dinner hours, but we do not stay open 24 hours a day.
d. _____We are open 24 hours a day.
e. _____Other (please specify) _____

What best describes your annual income?

a. _____Less than $30,000.
b. _____$30,000 to $40,000
c. _____$40,001 to $50,000
d. _____$50,001 to $60,000
e. _____$60,001 to $70,000
f. _____$70,001 to $80,000
g. _____Over $80,000
h. _____Unwilling to answer

As best as you can calculate, how many of those hours do you usually work **between 6:00 P.M. till 6:00A.M. during *WEEKENDS*?** _____ hours.

As best as you can calculate, how many hours **a MONTH** do you usually work **on weekends** (i.e. Saturdays and Sundays)?

_____ hours.

Thank you very much for your time. If you would like to participate in a prize drawing, please provide your
e-mail :_____

APPENDIX B: IRB FORM

Oklahoma State University Institutional Review Board

Date:	Monday, May 15, 2006
IRB Application No	HE0669
Proposal Title:	An Examination of Work-Family Conflict and Intention to Leave Among College and University Foodservice Managers
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 5/14/2007

Principal Investigator(s)

Minyen Ku
71-7 S. Univ. Place
Stillwater, OK 74075

Bill Ryan
210 HESW
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

[X] The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 415 Whitehurst (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sue C. Jacobs, Chair
Institutional Review Board

APPENDIX C: COVER LETTER

Dear NACUFS member:

I am a doctoral candidate in hospitality administration at Oklahoma State University. I am currently working on a research project, which examines work-family conflict and intention to leave among college and university foodservice managers.

It is essential for foodservice administrators and managers to understand the relationship between work-family conflict and intention to leave in order to retain desirable employees. This study could have potential benefits on reducing your turnover rate.

You were selected as a participant because of your membership in the National Association of College & University Food Services. We know how valuable your time is and in order to show our appreciation for your participation, your returned response will be entered for a cash prize drawing. There will be one winner for **$100** and three winners for **$50** each.

Your participation is voluntary. There is no risk anticipated from participating in the survey. Confidentiality is assured and in no way will you be identified in the study or results. No individual responses will be disclosed. The survey you complete and return will be taken as your consent to participate in the study and for reporting analysis data. For information on subjects' rights, contact Dr. Sue Jacobs, IRB Chair, 415 Whitehurst Hall, 405-744-1676.

To go to the online survey, please click the following link or copy and paste to access the survey: http://FreeOnlineSurveys.com/rendersurvey.asp?sid=mr76j5v2phq6cvz186230

The project has been approved by the Institutional Review Board (IRB) of Oklahoma State University. If you have any further questions, please feel free to contact me, Minyen Ku at (405) 332-0824 (minyen.ku@okstate.edu), or Dr. Ryan at (405) 744-8485 (b.ryan@okstate.edu). Please complete and email the survey by June 15. Thank you very much for your participation.

Sincerely,

Minyen Ku
Ph.D. Student
minyen.ku@okstate.edu
School of Hotel and Restaurant Administration
Oklahoma State University

Bill Ryan, Ph.D.
Interim Director and Associate Professor
b.ryan@okstate.edu
School of Hotel and Restaurant Administration
Oklahoma State University

VITA

Min-Yen Ku

Candidate for the Degree of

Doctor of Philosophy

Thesis: AN EXAMINATION OF WORK-FAMILY CONFLICT AND INTENTION TO LEAVE AMONG COLLEGE AND UNIVERSITY FOODSERVICE MANAGERS

Major Field: Human Environmental Sciences

Biographical:

Personal Data: Born in Taipei, Taiwan, October 19, 1962; the daughter of Kwei-Wen Ku and Yu-Ming Tseng Ku

Education: Graduated from Chung-Kuang Girl's High School, Taipei, Taiwan, in June 1981; received Bachelor of Arts degree from Tamkang University, Taipei, Taiwan, in June 1986; Master of Arts degree in Communications from University of Massachusetts at Amherst, Amherst, Massachusetts, in May 1989; Master of Science degree in Hospitality Administration from Johnson & Wales University in May 1991; completed the requirements for the Doctor of Philosophy degree with a major in Human Environmental Sciences at Oklahoma State University, Stillwater, Oklahoma, in May 2007.

Professional Experience: Variety of, management positions held at Bally's Park Casino Hotel & Tower, Atlantic City, New Jersey, 1991-92; Instructor, Ging-Chung Business College, Hua-Lien, Taiwan, 1993-96; Graduate Teaching and Research Assistant, Oklahoma State University, 2003-05; Instructor, Hospitality Management Department, National Peng-Hu University, Taiwan, 1997 to Present.

Professional Memberships: International Council of Hotel, Restaurant, and Institutional Education, and Oklahoma State University Hospitality Administration Graduate Student Association

Name: Min-Yen Ku Date of Degree: May, 2007

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: AN EXAMINATION OF WORK-FAMILY CONFLICT AND INTENTION TO LEAVE AMONG COLLEGE AND UNIVERSITY FOODSERVICE MANAGERS

Pages in Study: 167 Candidate for the Degree of Doctor of Philosophy

Major Field: Hospitality Administration

Scope and Method of Study: Quantitative Research by conducting survey and statistical analysis

Findings and Conclusions:

The primary purpose in the present study was to explore if there were relationships between pay satisfaction, work scheduling, role conflict, role ambiguity, work-family conflict (WFC) and intention to leave, in the college and university foodservice industry. In general, there were significant and positive relationships between these studied variables except pay satisfaction.

The results indicated that the respondents who experienced WFC also encountered role conflict and role ambiguity. Based on prior research it was anticipated that WFC occurs when one's work-related role interferes with his/her family demands and is accentuated by job-related role stress; therefore, WFC can potentially interfere with several work-related role stressors, such as role conflict and role ambiguity. In order to minimize "Role Ambiguity" the managers might experience, there is a need to re-examine the appropriate work hours required in their jobs.

The total number of hours worked during weekdays and hours worked during weekends monthly were found to be related to behavioral, time, strain-based interference from work, and intention to leave. Since role conflict and role ambiguity were important factors in increasing the probability that college and university foodservice managers will experience WFC and may have a desire to leave the current job, the managers should be assured that each role occupant has sufficient information to carry out his or her job successfully and that the expectations given to a role occupant do not create incompatible behaviors in the same job.

This study provides information regarding the factors which are related to college and university foodservice managers' intention to leave the current job and the information generated can help administrators better understand the need to take preventive or correctional actions to adjust the factors that trigger the chain of psychological states that lead to intention to leave.

ADVISER'S APPROVAL: Dr. Bill Ryan