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An Examination of Faculty Satisfaction at Two-Year Higher Education Institutions

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Part-time Faculty Satisfaction at Two-Year Public Postsecondary Institutions: A Comparison of Involuntary Part-time, Voluntary Part-time, and Full-time Faculty

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Abstract

Part-time faculty members represent the majority of faculty at public two-year postsecondary institutions. Utilizing part-time faculty enables two-year institutions to control their instructional costs and maintain scheduling flexibility. However, part-time faculty are diverse in regards to their employment preference, some prefer part-time employment while others would prefer a full-time position. Since retaining and attracting qualified and experienced part-time faculty members is essential, it is imperative that their satisfaction be understood.

This study uses the 2004 National Study of Postsecondary Faculty (NSOPF: 04) to study faculty satisfaction. Faculty was disaggregated according to employment preference into full-time, involuntary part-time, and voluntary part-time in order to study the structure of satisfaction for each group and the factors that influence the satisfaction for each group. The factors studied were perception of equity, partial inclusion, demographic differences and academic discipline. I found that the structure of faculty satisfaction and the influence of variables on faculty satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty.

Faculty satisfaction, faculty, part-time faculty, involuntary part-time, voluntary part-time, two-year institutions, perception of equity, partial inclusion, academic discipline, income, gender, NSOPF, or employment preference

CHAPTER 1: INTRODUCTION

Introduction

The use of part-time faculty at higher education institutions has been steadily increasing. The increase is especially significant at public two-year associate degree granting institutions (two-year institutions). In 1987, part-time faculty represented 40.3% of faculty at two-year institutions (Snyder & Hoffman, 1991). By 2007, that percentage had increased to 68.2% (IPEDS Winter, 2007). This percentage varies among institutions and between academic departments within an institution. The number of part-time faculty is expected to escalate as higher education budgets decrease in poor economic times (Wilson, 2009). Given the importance and permanence of part-time faculty in higher education, it is imperative for policy makers and administrators to create environments that contribute to part-time faculty satisfaction (Antony & Valadez, 2002). Therefore, it is important to have a better understanding of faculty satisfaction which encompasses the factors that influence part-time faculty satisfaction.

Part-time faculty members are an important asset to an institution. Teaching is the majority of the work at two-year institutions and is considered an "extension of institutional goals, institutional power, and institutional identity" (Levin, Kater & Wagoner, 2006, p. vii). The main function of faculty members at two-year institutions is teaching and the majority of two-year faculty members are part-time. Therefore, part-time faculty members are an essential component of two-year institutions.

The percentage of part-time faculty differs at each two-year institution; however, at some two-year institutions part-time faculty outnumber full-time faculty (Wagoner, 2007). With decreasing financial resources, institutions are able to reduce instructional costs by employing part-time faculty who receive lower salaries and fewer benefits than full-time faculty. In addition

to providing organizations savings for instructional costs, part-time faculty, with their short-term contracts, provide organizations flexibility in staffing. Part-time faculty and full-time faculty often have similar duties, skill requirements, and performance objectives and fill vital organizational positions (Liu & Zhang, 2007). According to Liu and Zhang, although part-time positions are less secure than full-time positions, they typically last for prolonged periods**.**

As the number of part-time faculty members increases, those part-time faculty members teach a greater number of courses and students; consequently, they are becoming more vital to the success of the students and the institutional health of the institutions. The student population at two-year institutions is a fragile segment of higher education, characterized by a large number of students requiring remediation (Provasnik & Planty, 2008), a large proportion of minority and first-generation students (Snyder, Dillow, & Hoffman, 2009), and low student persistence (Cohen & Brawer, 2003). It is essential for all two-year faculty members to be experienced in dealing with the student population, as well as be knowledgeable in their teaching field. In addition, faculty members at two-year institutions generally serve as the principal point of contact between students and the institution (Outcalt, 2002). Since two-year students typically interact with their instructors, who may be part-time faculty members, more than any other staff member or administrator, it is important for all faculty members to be knowledgeable about student needs and institutional missions. Therefore, retaining, as well as hiring, part-time faculty who are experienced and qualified can contribute to the success of both the students and the institution. Hence, it is imperative that two-year institutions examine the attitudes that may lead to the attraction of and retention of experienced and qualified faculty. Faculty satisfaction is one such attitude. This study focuses on faculty satisfaction and the factors that contribute to part-time faculty satisfaction.

Faculty satisfaction, which equates to job satisfaction, is a set of emotions with which faculty members view their work (Newstrom, 2007). A job is an abstraction with a combination of tasks, roles, responsibilities, relationships, benefits and rewards pertaining to a particular person in a particular organization (Locke, 1968); therefore, job satisfaction is abstract and complex. An individual can be satisfied with one facet of his or her job and dissatisfied with other facets. Overall job satisfaction is the sum of an individual's evaluations of each element of which the job is composed. Job satisfaction is a reasonably good predictor of behaviors. Newstrom contends that while job satisfaction helps predict constructive behaviors, job dissatisfaction helps predict undesirable behaviors. Therefore, studying faculty satisfaction is essential.

Part-time faculty members are diverse in regards to their employment preference. While faculty can be characterized as either full- or part-time, the part-time faculty can be further disaggregated according to those who would prefer a full-time position and those who prefer a part-time position. Some individuals work part-time to fulfill their dream of teaching at a higher education institution, while others teach part-time after they have retired from a lifelong career. Still others teach as a side job while also working full-time in industry (Gappa & Leslie, 1993). Others aspire to teach full-time and may hold several jobs while waiting for a full-time position (Jacoby, 2007). According to Jacoby, those faculty members who would prefer a full-time position are considered to be involuntary part-timers, while those who want part-time positions are voluntary part-timers. Individuals whose work status is incongruent with their work preference, such as involuntary part-timers, can be considered underemployed (Feldman, 1996). Additionally, those individuals can be considered as having a poor person-job fit (Kristof-Brown, Zimmerman, & Johnson, 2005). Underemployment and poor person-job fit are both negatively

correlated with job satisfaction (Carless, 2005; Hambleton, Kalliath & Taylor, 2000; Khan & Morrow, 1991). In their study of faculty at four-year institutions, Maynard and Joseph (2008) found that work-status congruence is a predictor of faculty satisfaction. Therefore, faculty satisfaction may differ among faculty grouped according to employment preference.

Several factors may influence the satisfaction of full-time, involuntary part-time, and voluntary part-time faculty and may influence each faculty group differently. Perception of equity is a factor that has been found to predict responses to job satisfaction (Dittrich & Carrell, 1976; Miller & Terborg, 1979). Several faculty satisfaction studies indicate that faculty perceptions of being treated fairly are positively related to satisfaction with various facets of the job and overall job satisfaction (Kim, Twombly & Wolf-Wendel, 2008; Terpstra & Honoree, 2004). Perception of equity is based on equity theory (Thorsteinson, 2003). Equity theory acknowledges that satisfaction does not only depend on an individual's own beliefs and circumstances, but also on what happens to other people (Colquitt, LePine, & Wesson, 2009). It may provide insight into understanding how faculty members believe they are treated at work (Denhardt, Denhardt & Aristigueta, 2009).

Partial inclusion is another factor that may contribute to faculty satisfaction and influence each faculty group differently. According to partial inclusion theory, individuals are members of multiple social systems and have multiple roles in their lives; therefore individuals are involved in the functioning of each social system to which they belong on only a partial or segmented basis (Katz & Kahn, 1978; Thorsteinson, 2003). Consequently, an organization may make demands on their employees for specific behaviors and attitudes; however, the organization cannot influence all of the physical and psychological factors of their employees (Miller & Terborg, 1979). Eberhardt and Shani (1984) found that part-time hospital workers reported

higher levels of overall job satisfaction than their full-time counterparts and looked to partial inclusion theory to explain the findings in their study. They suggest that since part-timers are not as involved in the organizational functioning of the institution, they may not possess enough information concerning organizational problems and politics to express negative attitudes. Therefore, the less a part-time faculty member is involved at an institution, the higher the expected faculty satisfaction.

Demographic differences among full-time, involuntary part-time, and voluntary part-time faculty members are expected to influence faculty satisfaction and influence each faculty group differently. Thorsteinson (2003) suggests that women are more likely to work part-time than men and older individuals are more likely to be in part-time positions than individuals of other ages. Men and women had essentially equal representation in part-time faculty appointments at two-year institutions in 2003, 49.2 to 50.8% respectively (IPEDS Winter, 2003). However, by 2007, the proportion of women had increased to 52.6% (IPEDS Winter, 2007). The average age of part-time faculty members is 49.2 years versus 49.8 years for full-time faculty (Eagan, 2007). Total income is another demographic difference that may influence faculty satisfaction. It is a well known fact that part-time faculty are paid less than their full-time counterparts (Gappa & Leslie, 1993; Levin, 2005; Schmidt, 2008); however, findings are mixed as to the influence of pay on faculty satisfaction (Jacoby, 2007; Toutkoushian & Bellas, 2003). Therefore, the total individual income a faculty member receives—including income from sources outside the institution—may be a better indicator of faculty satisfaction than just salary.

Academic discipline is another factor that may influence faculty satisfaction and influence each faculty group differently. Each academic field often has its own culture and identity and such differences affect practices regarding the employment and treatment of part-

time faculty (Frost & Jean, 2003). Academic disciplines differ according to availability of outside employment opportunities, number of part-timers utilized, and types of courses taught. Findings on the influence of academic discipline on overall faculty satisfaction have been mixed (Hagedorn, 2000; Olsen, Maple & Stage, 1995); however, Terpstra and Honoree (2004) found that pay satisfaction varied significantly by discipline type.

Therefore, perception of equity, partial inclusion, demographic differences and academic discipline may contribute to job satisfaction for faculty and may influence full-time and involuntary and voluntary part-time faculty differently. Since faculty satisfaction may lead to positive behaviors and faculty dissatisfaction may lead to negative behaviors within an institution, it is imperative that the job satisfaction of faculty be studied.

Problem Statement

As the proportion of part-time to full-time faculty increases, attracting, hiring and retaining experienced, highly qualified part-time faculty members become more important to the institutional health of a school. Part-time faculty members impact the institution's culture and play a crucial role in fulfilling the institution's mission (Green, 2007). Since organizations in which employees are more satisfied have been found to be more effective than organizations with less satisfied employees (Ostroff, 1992), having part-time faculty who are satisfied may lead to a more effective institution. Job satisfaction is positively correlated with increased productivity (Judge, Bono, Thoresen, & Patton, 2001), organization citizenship behavior (Chiu & Chen, 2005) and decreased turnover (Griffeth, Hom & Gaertner, 2000; Ostroff, 1992), while job dissatisfaction is positively associated with several negative behaviors, including turnover, absenteeism, tardiness, theft, violence and poor organizational behavior (Newstrom, 2007). Therefore, it is imperative for administrators to be cognizant of the needs of and satisfaction of

part-time faculty members in order to attract, hire and retain highly qualified and experienced part-timers who will contribute to the effective fulfillment of the institution's mission. Several studies indicate that part-time faculty as a whole are satisfied with their teaching positions (Eagan, 2007; Antony & Valadez, 2002). However, faculty members are a diverse group (Schuster & Finkelstein, 2006). In particular, some part-time faculty members want part-time employment, while others would prefer a full-time position. Maynard and Joseph (2008) found that work-status congruence, the fit between what a worker wants and what the job provides, influences faculty satisfaction. Therefore, it is possible that satisfaction may differ between groups of faculty, such as full-time, part-time who prefer part-time employment, and part-time who would prefer a full-time position. Furthermore, the structure and degree of satisfaction and the factors contributing to the satisfaction of these groups of faculty may be different.

Possibly factors such as perception of equity, partial inclusion, demographic differences and academic discipline may affect the satisfaction of faculty and may affect the satisfaction of full-time faculty, part-time faculty who prefer part-time work and part-time faculty who would prefer a full-time position differently. Miller and Terborg (1979) found that perception of equity, which is based on equity theory (Thorsteinson, 2003), predicts responses to job satisfaction (Miller & Terborg, 1979). In a study involving hospital workers, Eberhardt and Shani (1984) found that part-time workers reported higher levels of overall job satisfaction than their full-time counterparts. Contributing their findings to partial inclusion theory, they suggest that since part-timers are not as involved in the organizational functioning of the institution, they may not possess enough information concerning organizational problems and politics to express negative attitudes. Demographic differences; such as gender, age, and income; have produced mixed

results (Hagedorn, 2000; Thorsteinson, 2003). Findings on the influence of academic discipline on overall faculty satisfaction have been mixed (Hagedorn, 2000; Olsen, Maple & Stage, 1995); however, each academic field has its own culture and identity (Frost & Jean, 2003), utilizes part-time faculty to varying degrees, and has those part-timers teach different types of courses. Although studies have explored these concepts separately, none have considered all of the factors in the same study. Therefore, the purpose of this study is to explore satisfaction and its components for three groups of faculty at two-year institutions—full-time, part-time who would prefer full-time employment, and part-time who prefer part-time employment. Also, it explores the affects of factors that the literature indicates should influence faculty satisfaction differently for each group of faculty.

How This Research is Different

Several researchers have studied the satisfaction of part- and full-time faculty at two-year institutions (Antony & Valadez, 2002; Leslie & Gappa, 2002). Few faculty satisfaction studies are quantitative and consider the factors that influence satisfaction (Hagedorn, 2000). Some studies are limited to exploring only one facet of satisfaction, such as instructional autonomy (Kim, Twombly and Wolf-Wendel, 2008) or pay (Terpstra and Honoree, 2004). Several qualitative studies explore the faculty satisfaction of sub-groups of faculty, such as new rural community college faculty members (Murray & Cunningham, 2004) or full-time female faculty at a single community college (Wolf-Wendel, Ward, and Twombly, 2007). This study explored the sub-groups of voluntary and involuntary part-time faculty. Few studies explore the factors that influence part-time faculty satisfaction (Maynard & Joseph, 2008); however, this study explored factors that may influence part-time faculty satisfaction. In addition, this study is a quantitative study using data from the 2004 National Study of Postsecondary Faculty (NSOPF:

04), which includes the responses of faculty members from over 900 two-year institutions scattered throughout the United States. Therefore, the findings of this study can be generalized to all two year faculty nationwide.

Although literature does exist on part-time and full-time faculty satisfaction (Antony & Valadez, 2002; Leslie & Gappa, 2002); faculty satisfaction changes over time (Eagan, 2007). Additionally, the factors that influence faculty satisfaction may change over time, especially as the proportion of part-time to full-time faculty increases. In order for institutions to create policies and better prepare programs for their faculty, it is imperative to understand the satisfaction of all members of their faculty. Therefore, a current study is needed. I used data from the most current national survey that includes faculty at two-year institutions, the NSOPF: 04, which was released in Spring 2004. Previous faculty satisfaction studies either used earlier versions of the NSOPF or gathered data from a single institution. This study, in addition to examining whether or not part-time faculty members are satisfied, examined the factors that may predict satisfaction. This research is different because I disaggregated faculty into three groups—full-time, involuntary part-time, and voluntary part-time—and explored satisfaction for each group, since the structure of the satisfaction of each group may be different. Furthermore, I explored the factors that were expected to influence the satisfaction of part-time faculty differently than the satisfaction of full-time faculty.

Significance

Understanding the satisfaction of part-time faculty is important for many reasons. Obviously, satisfaction is important to the faculty members themselves. Many individuals choose teaching as a career because they love teaching (Wolf-Wendel, Ward, & Twombly, 2007) and teaching gives them personal satisfaction. They like working with ideas and they enjoy engaging

in intellectual discourse with colleagues and students. However, college environments can be high-pressured, multifaceted, and lack clear borders; thereby producing high stress levels for faculty (Hagedorn, 2000). For higher education faculty there is considerable spillover between work and life away from work and there is a high correlation between job and life satisfaction (Sorcinelli & Near, 1989). These teachers need to feel that their teaching careers are satisfying in order to fully function in all areas of their lives, otherwise, they will leave the profession (Bess, 1977).

Faculty members at institutions are increasingly becoming more demographically diverse. As diversity increases, the differences of faculty members on campus become more distinct and could lead to isolation for some members, decreasing satisfaction. At the same time, diversity could contribute to satisfaction for other individuals.

In addition to demographic diversity, faculty members are diverse in terms of their employment type. Higher education institutions are increasingly employing more part-time faculty, steadily increasing the proportion of part-time to full-time faculty. This change in proportion may have implications for the job satisfaction for both full- and part-time faculty members. A shrinking pool of full-time faculty members now bear the burden of responsibilities; such as advising students, performing committee work, and sponsoring student organizations; once handled by a larger full-time faculty (Levin, 2005). However, although full-time faculty members see full-time positions being slowly eliminated (Levin, Kater & Wagoner, 2006), those who currently hold full-time positions are protected when part-time positions are eliminated first during budget cuts (Levin, 2005).

To the institution, understanding faculty satisfaction enables administrators to make sound decisions that may both prevent and solve faculty problems (Newstrom, 2007). Faculty

satisfaction increases the likelihood that faculty members will perform their duties and help the institution fulfill its mission (Ostroff, 1992). A relationship has been found between job satisfaction and increased productivity (Judge, Bono, Thoresen & Patton, 2001); decreased turnover (Ostroff; Griffeth, Hom & Gaertner, 2000); smoother working relations (Chiu & Chen, 2005); and, in some situations, decreased absenteeism (Hackett & Guion, 1985; Johns, 1978). Professors and instructors are valuable assets to an institution. They are in daily contact with students, who represent both the product the institution produces and the customer the institution serves. Although some faculty turnover can be healthy, too much turnover becomes expensive and disruptive (Ambrose, Huston, & Norman, 2005). Many higher education institutions are concerned about the satisfaction of their faculty and perform faculty satisfaction studies within their institution (Cornell University, n.d.; Administrative Appraisal, n.d.; Nelson, 2003). Therefore, studying and understanding faculty satisfaction can enable administrators to provide the support faculty members need so they can, in turn, provide rich learning environments for their students.

Faculty satisfaction is especially important to two-year higher education institutions where part-time faculty members are the majority. In an effort to achieve economic efficiencies and ensure flexibility in staffing, two-year institutions are utilizing part-time instructors instead of full-time faculty (Schuster & Finkelstein, 2006). Over the years these institutions have employed increasing numbers of part-time faculty and now the proportion of part-time time faculty to full-time faculty is greater than 50%.

Although part-time faculty members are less expensive to employ than full-time faculty, it is expensive and time consuming to advertise for, recruit, hire and train part-time faculty (Newstrom, 2007). In my experience as a Department Head at a two-year institution, I find it

difficult to attract and retain individuals willing and financially able to work only part-time. By understanding the factors that contribute to part-time faculty satisfaction, administrators can develop sound selection methods which can ensure that individuals are a good fit for part-time positions; thereby enhancing faculty satisfaction (McShane & Von Glinow, 2008; Saari & Judge, 2004).

Understanding the differences of faculty satisfaction based on employment preference enables an institution to offer incentives that will, in fact, increase faculty satisfaction. Also, it enables institutions to design professional development and personal development programs that can potentially increase or maximize faculty satisfaction. Knowing what factors increase faculty satisfaction, or decrease dissatisfaction enables institutions to avoid wasting resources and effort on programs and incentives that do not further faculty satisfaction and enables them to concentrate resources on the factors that do increase faculty satisfaction. In addition, understanding the factors that influence faculty satisfaction enables the institution to modify the factors that are within their capability to change, while at the same time, understanding those factors that are beyond their control.

Furthermore, by understanding that part-time faculty are not homogenous in regards to employment preference will enable institutions to create specialized policies for particular part-time groups which may meet the needs of each group better than programs that conceptualize part-time faculty as an aggregate (Wagoner, 2007). Those policies could include assigning more teaching hours and paid duties to those part-timers preferring full-time positions and could include giving part-timers preference when full-time positions are being filled.

Research Questions

Given the significance of studying part-time faculty satisfaction, it is imperative that administrators and policy makers be cognizant of the factors that lead to part-time faculty satisfaction. The following questions guided this research:

- Does the structure of faculty satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?
- Do the factors that influence satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?

Conceptual Framework

The setting for this framework is public two-year associate degree granting institutions, see Figure 1.1. The population is faculty members at those institutions who teach courses for credit. Those faculty members are grouped into three categories—full-time, voluntary part-time, and involuntary part-time. The satisfaction for each group of faculty has a different structure. The differences in satisfaction among the groups can be explained by certain factors that affect each group differently and, ultimately, influence their satisfaction. Those factors are perception of equity, partial inclusion, demographic differences and academic discipline. This conceptual framework derives from the work of Antony and Valadez (2001), Maynard and Joseph (2008), Jacoby (2005), Thorsteinson (2003), and Miller and Terborg (1979). Faculty satisfaction of the different groups and the effects of the factors on faculty satisfaction were analyzed.

Research Methodology

A quantitative approach was taken in this study using data from the 2004 National Survey of Postsecondary Faculty (NSOPF: 04). The population of interest is faculty at two-year institutions. The dataset from this national study enabled the researcher to study faculty from

two-year institutions throughout the United States instead of limiting the study to a smaller geographic region or one higher education system.

The participant data was disaggregated into three separate groups—full-time; voluntary part-time; and involuntary part-time faculty. Principal axis factoring was conducted on each group to assess the underlying structure of the eight faculty satisfaction items from the NSOPF: 04 questionnaire. Once the number of factors was determined, a rotation was performed. Since I suspected that the factors may be related, I performed an oblique method of rotation, also known as *direct oblimin*, for each group (Vogt, 2006).

Multiple regression was used to determine the predictive ability of the independent variables on the measures of faculty satisfaction (Leech, Barrett & Morgan, 2005). A separate regression analysis was run on each group of faculty. All of the predictors were used simultaneously (Hagedorn, 2000).

Definitions of Selected Terms

Faculty satisfaction: Faculty satisfaction is the job satisfaction of faculty members and was used synonymously with job satisfaction.

Involuntary part-time: Involuntary part-time faculty members are those who would prefer full-time employment.

Part-time faculty: Part-time faculty members are faculty paid on a part-time faculty contract, which is different than the full-time faculty contract. Part-time faculty members are sometimes referred to as adjunct (Wallin, 2005), part-timer (Gappa & Leslie, 1993), term (Schuster & Finkelstein, 2006), or contingent faculty (Jacoby, 2005). In this study, the terms *adjunct*, *part-timer*, and *part-time faculty* were used interchangeably to indicate faculty not on a full-time contract.

Two-year institutions: Two-year institutions are public two-year, associate degree granting institutions as defined by the 2000 Carnegie Foundation Classification system (*The Carnegie Classification*, 2001). This category includes institutions with community college, junior college, technical college or simply college in their name. Their common features are being public and granting associate degrees.

Voluntary part-time: Voluntary part-time faculty members are those who want a part-time position.

CHAPTER 2: REVIEW OF LITERATURE

Faculty members have a long history in postsecondary education and they are important assets to their institutions. This chapter opens with a discussion of the history of the academic profession. An exploration of two-year institutions follows with a discussion of the student population and the faculty at two-year institutions. Next is a comprehensive look at part-time faculty, including the advantages and disadvantages of their use and an explanation of who they are. An in depth presentation of the literature on faculty satisfaction is then presented, followed by the conceptual framework. This chapter concludes with the contribution to leadership studies and contribution to the literature.

History of Academic Profession

In order to study faculty satisfaction, it is important to understand the evolution of the academic profession. Faculty members have taught students at American postsecondary institutions ever since the founding of Harvard, nearly four centuries ago (Schuster & Finkelstein, 2006). Although college teaching changed little during the first 200 years, extraordinary changes have occurred in the responsibilities, backgrounds and career paths of faculty during the last 175 years (Schuster & Finkelstein).

During the 1600s and early 1700s, the teaching staffs at colleges were composed entirely of tutors, typically young male college graduates who held temporary positions before starting careers in areas such as ministry, business, law, medicine, government, or farming (Schuster & Finkelstein, 2006). Each tutor was assigned to a single class, spent almost every hour each day with the students and was responsible for the intellectual, moral and spiritual development of the students. The colleges were more interested in forming character and training a special elite group for community service than fostering original research (Brubacher & Rudy, 1997). By the

mid-eighteenth century, permanent faculty, the first professors, started replacing tutors (Schuster & Finkelstein, 2006). By 1800, there were approximately 100 professors who came mostly from mid- to upper-income families who were able to pay tuition, room and board, and were wealthy enough to allow their sons to go to college instead of going to work to contribute to the family income (Carrell, 1968).

In the nineteenth century college teaching was elevated to a higher status and emerged as a profession with permanent positions that, as per Schuster and Finkelstein (2006), were more respected, responsible and financially rewarding than before. Tutors and professors were hired to teach in a particular field in which they received advanced, formal preparation. The time and financial resources dedicated to advanced subject matter preparation required for college teaching made college teaching a life-long career commitment (Schuster & Finkelstein).

The professionalization process moved to the next level by the mid-nineteenth century as academic disciplines developed, systematic research and graduate education evolved. According to Schuster & Finkelstein (2006), by the mid-1940s, the graduate research model was clearly established and the faculty role as specialist in a discipline emerged. In the last quarter of the nineteenth century, institutional careers for professors emerged and a career sequence appeared which introduced the new academic ranks of assistant and associate professor, thus enabling individuals to move up through the junior ranks to the rank of professor.

Higher education and academic staffs experienced unprecedented growth between 1940 and 1969. Faculty members were pursuing careers at institutions with a wide range of missions. One in six faculty members were employed at two-year institutions. The faculty members themselves became demographically diverse in regards to gender, religion, race and ethnicity. Once a haven for white Protestant males, the profession started including females, non-

Protestants and nonwhite, non-European individuals (Schuster & Finkelstein, 2006). As diversification increased, changes emerged in the nature of faculty life and work. Faculty careers became less exclusive, with faculty members moving between college teaching and other types of employment, especially in the career and professional fields. Also, according to Schuster and Finkelstein, faculty careers became less preemptive, with faculty members not allowing their career to consume all of their available time.

Although American higher education enjoyed a period of unparalleled quantitative growth and expansion, their financial resources started to constrict in the late 1970s, forcing more creative budgeting (Brubacher & Rudy, 1997). Under these circumstances, a major shift away from tenured, full-time faculty and toward the use of less-expensive part-time instructors began. The percentage of part-time faculty in higher education in 2007 was 49%, an increase of 13 percentage points since 1989 (Almanac Issue, 2009). The percentage of part-time faculty is not equal among postsecondary institutions. Part-time faculty members at four-year institutions represent 31.6% of the faculty, while they represent 68.6% of the faculty at two-year institutions (NCES, 2009). With the economic downturn of 2008-09, higher education administrators are being forced to cut budgets drastically. One method to cut spending is to hire more adjunct faculty; therefore, the number of adjunct faculty may continue rising (Wilson, 2009).

The segment of public higher education with the greatest percentage of part-time faculty members is the two-year institution with 68% in Fall 2007 as compared to 32% at four-year institutions (IPEDS Winter, 2007). Although two-year institutions have a short history, they enrolled 46.9% of higher education students nationwide in the 2007-08 academic year, making them major providers of higher education (Snyder, Dillow, & Hoffman, 2009). A discussion

follows on the background of two-year institutions which includes information on the students and the faculty.

Two-Year Institutions

Two-year higher education institutions vary in name, size and mission. However, the common bond of the two-year institutions included in this study is the granting of associate degrees, as defined by the 2000 Carnegie classification system (*The Carnegie Classification of institutions*, 2001). Although the Carnegie classification system was updated in 2007 (*Carnegie classification of institutions of higher education*, n.d.), this study uses the 2000 Carnegie classification system because that was the classification system used in the NSOPF: 04 (Heuer, 2006). As classified by the Carnegie Foundation, a two-year institution can be known as a junior college, a community college or simply a college. In addition, the Carnegie Foundation classifies technical colleges that grant associate degrees as two-year institutions (*The Carnegie Classification of institutions*, 2001). Included as two-year institutions in the 2000 Carnegie Classification of institutional types are schools such as Allen Hancock College in Santa Maria, California with an enrollment of over 12,500, the Louisiana Technical College Lafayette campus in Lafayette, Louisiana with an enrollment of over 950 students, Butler County Community College in Butler, Pennsylvania with an enrollment of over 3,700, and Joliet Junior College in Joliet, Illinois with an enrollment of over 12,700 (*The Carnegie Classification*, 2001). Although their names may include *college*, *technical college*, *community college* or *junior college* the two-year institutions in this study are referred to interchangeably as community colleges or two-year institutions.

Background

Two-year higher education institutions first appeared in the 1900s as extensions to high schools (Geiger, 1999). Originally known as junior colleges, two-year institutions were created by William Rainey Harper, President of the University of Chicago, to provide preparatory courses inexpensively and close to students' homes. Ideally, students would be able to complete rudimentary courses at the community college that corresponded to the freshman and sophomore years of college and transfer to a university as a junior; thus preserving the university for original scholarship and only the highest intellectual activities (Salzman, 1992).

By 1940, 11% of students attending postsecondary institutions attended two-year schools (Geiger, 1999). The community college had evolved into an institution with dual purposes—to offer academic courses as preparation for the young people in a particular locality who planned to attend a university and to provide vocational training for those who did not intend to attend a university (Salzman, 1992). Among the social forces that contributed to the rise of the junior colleges were the need for trained workers to operate the country's expanding industries and the drive for social equality, which would be enhanced by providing more individuals with access to higher education (Cohen & Brawer, 2003). In the 1969-70 academic year, 206,000 associate degrees were conferred by two-year institutions (Snyder, Dillow, & Hoffman, 2008). That number increased to 498,166 in the 2006-07 academic year (IPEDS Fall, 2007). In the 2007-08 academic year, 46.9% of postsecondary education students were enrolled at two-year institutions (Snyder, Dillow, & Hoffman, 2009), indicating that two-year institutions have evolved into major providers of higher education.

Two-year institutions rely heavily on state and local government agencies for funding (Provasnik & Planty, 2008). In the 1990s two-year institutions became victims of the reduction

in state funding. Although the number of public two-year institutions in America grew from 896 in 1974 to a high of 1,092 in 1998, by Fall 2007 the number had decreased slightly to 1,032 (Snyder, Dillow, & Hoffman, 2009). To maintain their vitality, two-year institutions were forced to seek alternate funding sources and to rely more heavily on workplace efficiencies, such as part-time labor. A more comprehensive discussion on funding is included in the section on part-time faculty.

Through the years community colleges have been able to increase enrollment despite a decline in potential traditional students (Cohen & Brawer, 2003). Two-year institutions saw an opportunity to increase enrollment by expanding programs that appealed to the burgeoning general population. When four-year institutions were unwilling to accommodate working people who could not attend school full-time (Brubacher & Rudy, 1997), two-year institutions started offering courses at times and places convenient to students with family and employment responsibilities (Bean & Metzner, 1985). In addition, two-year institutions expanded their curricular offerings to attract older students, part-time students, low-ability women and minority students (Cohen & Brawer). In many instances, two-year institutions switched from a liberal arts emphasis to vocationally oriented certification and degree programs (Bean & Metzner). Although their tuition costs are typically lower than at four-year institutions, two-year institutions were able to increase the availability of financial aid (Cohen & Brawer). The community college provides students with inexpensive, close-to-home access and fairly open access to higher education and training (Levin, Kater, & Wagoner, 2006). Enrollment at two-year institutions is currently over 6.3 million, which represents an increase of 360% since Fall 1967 (Snyder, Dillow, & Hoffman, 2009). This growth in enrollment is well above that of four-year institutions where enrollment only grew by 108% during the same time period. Currently,

students attend community colleges for the ability to transfer to a four-year college, to acquire a vocational skill, to obtain remedial assistance, or just to learn for the sake of learning (Basken, 2008). As "all things to all people" (Levin, Kater, & Wagoner, 2006, pg. 16), the two-year postsecondary institution has evolved into a major provider of higher education. Therefore, it is imperative for two-year institutions to employ and retain experienced and qualified faculty who can teach the students. A discussion of those students served by two-year institutions follows.

Students

For the community college everyone over 16 years of age is a potential student (Cohen & Brawer, 2003). Two-year institutions attract a diverse student population, including those who are academically underprepared, first generation students, and students who cannot otherwise afford a postsecondary education. Through dual enrollment, students as young as 16 years old can enroll while they are still in high school (Horn & Weko, 2009). In Fall 2007, 6.9% of community college students were under 18 years of age; however, more than 40% of community college students are over 25 years of age, with the average age being 28.5 years of age (IPEDS Spring, 2008). During the 2007-08 academic year, student enrollment at two-year institutions exceeded 6.3 million, representing 46.9% of all students at public higher education institutions. Sixty-one percent of the students were enrolled part-time, 58% were female. Minority students accounted for 36.4% of the student population, of which 13.4% were Black, 15% were Hispanic, and 6.8% were Asian/Pacific Islander (Snyder, Dillow, & Hoffman, 2009).

According to Salzman (1992), many of the students who attend two-year institutions do not care much about the wider world and desire only to obtain the knowledge and skills needed to secure employment in their locality. Typically, they are not involved in campus life, they arrive on campus to take classes and then leave. Although research indicates that involvement

with the college and faculty relationships are strongly related to student success, Miller, Pope and Steinmann (2005) indicate that community college students are unlikely to use campus athletic resources, attend athletic events, eat at a campus food service, use campus resources for rest and relaxation, date a fellow student, participate in one of the college's social groups or clubs and were the least likely to attend the college's cultural events, such as a guest lecture or an art show. In addition, they found that community college students are unlikely to meet with an advisor more than is required or introduce themselves to their instructors outside of class.

Many students at two-year institutions do not consider themselves to be "college material" (Salzman, 1992). In addition, they are typically deficient in one or more subjects and must take remedial courses. Approximately 28.6% of beginning community college students take one or more remedial courses, as compared to only 18.6% of beginning four-year college students (Provasnik & Planty, 2008). In the Fall 2007, approximately 99.5% of two-year institutions offered remedial courses, as compared to 74.1% of four-year institutions (Snyder, Dillow, & Hoffman, 2009).

Students who attend two-year institutions typically have low levels of persistence and degree attainment. Data from the most recent Beginning Postsecondary Students Longitudinal Study (BPS 04/06) indicate that of the students who started their higher education journey at two-year institutions in 2003-04, only 9.3% had earned an associate's degree by June 2006, which was 3 years later, while 4.4% had earned a certificate, 25.5% had not earned a degree but were still enrolled, 19.5% had transferred to another higher education institution and 41.3% were neither enrolled nor had earned a certificate or degree (Almanac Issue, 2009). During the same three-year period, only 22.6% of students who had entered public four-year institutions as first-time freshman were neither enrolled nor had earned a degree, indicating a much better

persistence rate than that of two-year students. Degree attainment for four-year students was only 4%, which can be expected since most programs are designed to be completed in four years. Data from the previous Beginning Postsecondary Students Longitudinal Study (BPS 96/01) indicates that of the students who started their higher education journey at two-year institutions in 1995-96, approximately 38.4% had earned a certificate or degree by 2001, six years later—17.3% had earned an associate's degree, 11.5% had received a certificate, and 9.7% had gone on to complete a bachelor's degree. Sixteen percent of the students were still enrolled and 45.2% were not enrolled and had not earned a certificate or degree (Berkner, He, & Cataldi, 2002). Fifty-six percent of the students who entered public four-year institutions in 1995-96 as first-time freshman received a degree six years later (Almanac Issue). These numbers indicate that persistence for students at two-year institutions after three years of matriculation is considerably lower—18.7 percentage points—than persistence for public four-year students. In addition, degree attainment six years after matriculation at two-year institutions is 17.6 percentage points lower for students at two-year institutions than students at public four-year institutions.

The students who attend two-year institutions are a diverse group—academically, demographically and financially. Their at-risk nature, low persistence rate and varying goals for the future present challenges to the institutions they attend. The faculty at each institution is given the task of teaching this mélange of students. The importance of faculty to the success of these students and the institution is discussed in the subsequent section.

Faculty in Two Year Institutions

Faculty members are vital to the mission of two-year institutions. They typically interact with students more than any staff member or administrator, making them the principal point of contact between students and the institution (Outcalt, 2002). Therefore, it is imperative to have

faculty members who are not only knowledgeable in their subject area, but also are available for students outside of class, are cognizant of the needs of the students the institution serves, and are well-informed about the institution's policies and mission. Hence, knowledgeable, experienced and committed faculty members are an essential component of the success of both the students and the institution. Since positive faculty satisfaction can increase productivity, decrease turnover and absenteeism and increase organizational citizenship behavior, institutions may be able to retain knowledgeable, experienced, and committed faculty by focusing on the satisfaction of their faculty (Newstrom, 2007).

Many faculty members at two-year institutions feel they can make a difference. They express a love for teaching and many express a commitment to social justice (Wolf-Wendel, Ward, & Twombly, 2007). Many faculty members do not pursue a path to teaching at a community college (Murray & Cunningham, 2004). Instead, they typically begin their careers in secondary schools, industry, government, military, or as part-time teaching assistants in four-year colleges. However, once a position opens, an opportunity presents itself, or a professor suggests a position, individuals seize the opportunity and start teaching at a community college.

Just as are faculty at four-year institutions, faculty at two-year institutions are members of different academic disciplines. Academic disciplines are composed of faculty members who share similar characteristics and interests, responsibilities and job requirements (Hagedorn, 2000). Faculty work, faculty connectivity to the academic world and exposure to work outside academe varies across academic fields (Palmer, 2002). Using the NSOPF-99, Palmer found that full-time faculty members at two-year institutions who teach in humanities; life sciences; natural sciences, physical sciences, and mathematics; and social sciences are more likely to hold doctorates or first professional degrees than their colleagues in career areas—business,

education, engineering and computer sciences, health sciences, human services and vocational fields. Palmer also found that the full-time faculty members teaching vocational programs are less likely than those in the humanities to work outside of higher education. Health sciences and vocational instructors are the most likely to have worked outside of higher education previously; while those teaching in the engineering and computer sciences area are more likely to earn additional money through consulting.

Although faculty members at two- and four-year institutions share the common bond of teaching, they are different in several ways. They differ in respect to gender, mission, educational attainment, tenure process and employment status. A discussion follows on each of these aspects.

Female faculty members are slowly becoming the majority at two-year institutions. In Fall 2003, only 50.3% of faculty at two-year institutions were female; however, by Fall 2007, approximately 52.6% were female (IPEDS Winter, 2003; IPEDS Winter, 2007). Not only did the percentage of male faculty members at two-year institutions decrease, the number of male faculty members actually decreased by three percent from 2003 to 2007. The number of female faculty members at two-year institutions increased by 5.8% during that period. Although female faculty members increased their presence at two-year institutions, most of that increase was in part-time positions. There was a 7.3% increase in the number of females in part-time positions at two-year institutions from 2003 to 2007; however, there was a decrease of almost one percent of males in those positions. During the same period, there was an increase of 2.9% of total females in full-time positions at two-year institutions and a decrease of 8.7% of total males in full-time positions.

At four-year institutions male faculty members are still the majority representing 57.1% of total faculty, down from 59.8% in 2003 (IPEDS Winter, 2003; IPEDS Winter, 2007). However, men and women are essentially equally represented in part-time faculty appointments. Total part-time faculty positions increased 21.7% from 2003 to 2007, with the total number of males and females in part-time positions increasing 17.6% and 26%, respectively. Therefore, representation of faculty members does differ by gender between two-year and four-year institutions, and by full- and part-time status.

Faculty members at two-year institutions have a different mission than their four-year counterparts. Scholarship at four-year institutions has generally focused on the discovery of new knowledge that results in subsequent publication; however, modern scholarship at two-year institutions focuses on the integration, application, and transmission of knowledge (Brubacher & Rudy, 1997). Faculty at two-year institutions are not required to do research, and if they do choose to do so they are typically encouraged to engage in the scholarship of teaching and focus on ways to improve the teaching-learning process (Twombly & Townsend, 2008). Although the average teaching load— five 3-credit hour courses—may be heavier at two-year, than at four-year colleges, many faculty members consider the work load to be manageable since they are not required to do research (Wolf-Wendel, Ward, & Twombly, 2007). Full-time faculty members at two-year institutions do enjoy a shorter work week than their four-year counterparts, 49 hours as compared to 52 – 55 hours (Twombly & Townsend).

A master's degree represents the highest level of educational attainment generally required to teach at a community college; however there is a small percentage of faculty who do have doctorate degrees. The most recent compilation of faculty data that includes faculty at two-year institutions indicates that in Fall 2003, 11.6% of faculty at two-year institutions held

doctorate degrees, 55% held master's degrees and 30.4 had a bachelor's degree or less as their highest level of educational attainment, as compared to 58.4%, 26.3% and 6.1%, respectively, at four-year institutions (Provasnik & Planty, 2008).

Tenure is not as significant an issue at the two-year institution as it is at other types of colleges and universities (Wolf-Wendel, Ward, & Twombly, 2007). In Fall 2007, 42.1% of full-time faculty at four-year institutions had tenure as compared to 37.8% of their two-year counterparts (IPEDS Winter, 2007). The tenure process at those community colleges that grant tenure resembles the process found in the K-12 system more than the tenure process at the four-year level (Cohen & Brawer, 2003). Typically, an instructor is granted tenure following a probationary period of one to three years and the fulfillment of various responsibilities. Those responsibilities typically include demonstrated teaching skill in the classroom; demonstrated respect for students, colleagues and the educational professions; continued professional growth; participation in collegial governance (*MiraCosta*, 2008); satisfactory service to the institution; and recognition and respect outside of the institution (Tenure for community college faculty, 2008). Once tenured, an instructor can demand the renewal of his or her contract annually unless the institution can show cause that the instructor is undeserving (Cohen & Brawer, 2003).

Faculty positions at two-year institutions are increasingly becoming part-time positions. As indicated in Table 1.1, part-time faculty positions represented 67% of faculty positions at two-year institutions in Fall 2003; however, by Fall 2007, they represented 68% of faculty positions, an increase of one percentage point (IPEDS Winter, 2003; IPEDS Winter, 2007). The total number of faculty at two-year institutions increased only 1.5% from 2003 to 2007. During that same period, the total number of full-time faculty members decreased by 2.8% while the

Table 1. 1

Faculty at public 4-year and public 2-year institutions by employment status and gender in Fall 2007 and Fall 2003.

	2007			2003	
	Total	Percent	% Change in Total from 2003	Total	Percent
Public 4-yr.					
Total Faculty	518,244		0.1516	450,040	
Full-time	354,313	0.6837	0.1237	315,310	0.7006
Male	214,749	0.6061	0.0743	199,888	0.6339
Female	139,564	0.3939	0.2092	115,422	0.3661
Part-time	163,931	0.3163	0.2167	134,730	0.2994
Male	81,230	0.4955	0.1756	69,096	0.5128
Female	82,701	0.5045	0.2600	65,634	0.4872
Public 2-yr.					
Total Faculty	364,346		0.0149	359,004	
Full-time	115,816	0.3179	-0.0285	119,210	0.3321
Male	54,008	0.4663	-0.0868	59,142	0.4961
Female	61,808	0.5337	0.0290	60,068	0.5039
Part-time	248,530	0.6821	0.0364	239,794	0.6679
Male	117,877	0.4743	-0.0009	117,983	0.4920
Female	130,653	0.5257	0.0726	121,811	0.5080

Source: U. S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Winter 2007-08, Human Resources component, Fall Staff section and IPEDS, Winter 2003-04, Fall Staff component.

total number of part-time faculty members increased by 3.6%, indicating that not only is the proportion of part-time to full-time faculty members increasing, but full-time positions are diminishing. The proportion of part-time faculty members is increasing at all public postsecondary institutions. At four-year institutions, the percentage of part-time faculty increased at a slightly higher rate than at two-year institutions, two percentage points from Fall 2003 to Fall 2007. During the same period, total faculty increased at four-year institutions by 15.2% with a 21.7% increase in part-time faculty members. However, unlike their two-year counterparts, four-year institutions experienced an increase of 12.4% in total full-time faculty members from 2003 to 2007, indicating full-time positions are increasing at four-year institutions even though the proportion of part-timers to full-timers is increasing.

Part-time Faculty

Part-time faculty members are paid on a part-time faculty contract, which differs from the full-time faculty contract. Although referred to as adjunct (Wallin, 2005), part-timer (Gappa & Leslie, 1993), term (Schuster & Finkelstein, 2006), or contingent faculty (Jacoby, 2005), the terms *adjunct*, *part-timer*, and *part-time faculty* are used interchangeably throughout this study to indicate faculty not on a full-time contract.

Even though part-time employment in the United States is generally defined as less than 35 hours a week (Kalleberg, 2000), the rules and regulations of the individual states and educational systems ultimately determine what is considered full-time. In some areas, union contracts determine the definition of full-time (Gappa & Leslie, 1993). Part-time faculty employment may be short- or long-term (Ronco & Cahill, 2004). Adjunct faculty may have course loads lighter than, equal to, or greater than full-time faculty's course loads. Typically,

advising, committee work and other non-instructional duties are not part of adjunct faculty members' work (Gappa & Leslie, 1993).

The proportion of part-time to full-time faculty at two-year institutions has been steadily increasing. In 1992, only 44% of faculty members at two-year institutions were designated part-timers (National Center for Education Statistics, 1995). By 2007, part-time faculty represented 68.6% of faculty employed at two-year institutions (IPEDS Winter, 2007). Throughout the American economy part-time positions increased .3% from 1996 to 2006; however, full-time positions grew faster at 1.5% (*Chartbook of International*, 2009). In contrast, the total number of full-time faculty members at two-year institutions actually declined by 2.8% from 2003 to 2007. The increase in part-time faculty can be attributed to several factors; however, the economic benefits to the institution associated with employing part-time faculty were the catalyst (Levin, 2005). The following section expounds on the institutional considerations for using part-time faculty.

Institutional Considerations

Economic Benefits

Cost Savings

Two-year institutions rely heavily on state and local government agencies for funding (Provasnik & Planty). In 2004-05, two-year institutions received 29% of their total revenue from state appropriations, 18% from local appropriations and only 17% from tuition and fees (Snyder, Dillow, & Hoffman, 2008). However, a tightening of state funding started in the 1990s and accountability in higher education emerged. Performance-funding models, which sought to promote efficiency and attempted to measure faculty productivity, were introduced. These models provide numerical and qualitative benchmarks which drive resources to institutions

(Voorhees, 2001). In an effort to meet the performance indicators, community colleges reduced instructional costs—salaries and the costs of benefits for faculty—by reducing the number of full-time faculty and increasing the number of part-time instructors.

In 2004-05 salaries and wages for instruction accounted for 27% of total expenses, representing the highest expense category for two-year institutions (Snyder, Dillow, & Hoffman, 2008). The average salary for full-time instructional faculty increased 20% between 1979 and 2007. Benefits accounted for 21% of total faculty compensation in 2007, up from 16% in 1979 (Planty et al., 2008). According to Levin, Kater, and Wagoner (2006), pay per credit hour is lower for part-time faculty than it is for full-time faculty. In addition, part-time faculty members typically do not receive the benefits afforded full-time faculty, including medical insurance, sick leave, retirement, and sabbaticals. Since part-time faculty are paid less and receive fewer benefits than their full-time counterparts, utilizing part-time faculty enables institutions to reduce instructional costs and reallocate those funds to other areas of the budget.

Flexibility

Utilizing part-time faculty also provides colleges the flexibility to expand or contract their teaching staffs—when and if needed—in response to enrollment fluctuations and to fill curricular needs (Levin, Kater, & Wagoner, 2006). Part-time faculty can be added and terminated much easier than full-time faculty members. Typically, part-time appointments are cut first when states cut their postsecondary education budgets (Levin, Kater, & Wagoner). However, there are instances when the economy is so bad in a state, such as in Florida in 2008, and the postsecondary budget is cut so drastically that student enrollment at public four-year institutions in the state must be restricted (Fain, 2008). When this occurs those students who cannot get into the four-year institutions are funneled to community colleges. According to Fain,

community colleges are able to accommodate this influx of students by offering part-timers more teaching hours and hiring more adjunct faculty.

Employing part-time faculty enables two-year institutions to fill curricular needs. Institutions can hire part-time faculty who possess the expertise to teach new courses as new programs are added without making long-term commitments (Levin, Kater, & Wagoner, 2006). Small community colleges are able to offer courses for which a full-time faculty position is not needed, such as an esoteric foreign language or a religious studies course (Cohen & Brawer, 2003). In addition, employing adjuncts enables institutions to respond quickly to surges in enrollment in areas of growth by hiring adjuncts at the last minute (Wallin, 2005).

Part-timers who bring special skills, abilities, and talents can increase the prestige and effectiveness of an institution (Wagoner, 2007). Vice President Joe Biden, Jr., was an adjunct professor at the Widener University School of Law for 16 years while he was a senator. Unlike a typical professor, he was able to share with his students his political acumen that developed during his years as a senator and through campaigning for his own presidential bid ("A Presidential Hopeful," 2007). The College of Pharmacy at the University of Florida has several adjunct faculty members who are associated with large corporations and regulatory agencies. Included in the list are the Associate Director in Clinical Pharmacology at Pfizer Global Research and Development, a team leader for the pharmacometrics team in the Office of Clinical Pharmacology at the Food and Drug Administration, and the Group Director of Clinical Biomarker and Bioanalytical Sciences at Bristol-Myers Squibb ("College of Pharmacy," 2009). Adjunct faculty members such as these bring practical experience to the classroom and attract students to a program. Although part-time instructors do provide benefits to an institution, there are drawbacks as well.

Disadvantages of Using Part-time Faculty

Levin, Kater, and Wagoner (2006) contend that two-year institutions are becoming more like businesses and corporations. The focus on economic goals, such as productivity, efficiency, and revenue generation, has become central to the institutional mission of the two-year institution; thereby, threatening the social and educational mission.

In my opinion, offering only part-time options to a candidate limits the pool of qualified applicants for teaching positions. Many qualified faculty will not, or cannot, afford to accept a part-time position (Toutkoushian & Bellas, 2003). In addition, a highly qualified instructor will not relocate for a part-time position. Therefore, the pool of qualified instructors is limited to those already living in the area. Part-time positions are especially detrimental for rural institutions where few local citizens are qualified for teaching positions and administrators must try to convince qualified individuals to move to the area (Murray, 2007).

The increasing use of part-time appointments affects the full-time faculty on campuses both positively and negatively. By employing part-timers, full-time positions are protected. Typically, part-time appointments are cut first when institutions are cutting their budgets (Levin, Kater & Wagoner, 2006). However, when the number of part-time faculty increases at institutions, the members of the full-time faculty are burdened with the duties of advising, committee work and paperwork (Levin, 2005), since those duties are not part of adjunct faculty members' work (Gappa & Leslie, 1993).

The increasing proportion of part-time faculty also prevents the formation of a cohesive group among faculty members (Outcalt, 2002). Compared to full-time instructors, part-time instructors at two-year institutions are more likely to have no interaction with their colleagues, are less likely to teach courses jointly with faculty members outside their department and are

more likely to spend no time on administrative activities, including committee work (Schuetz, 2002). In addition, part-time instructors are less likely than their full-time counterparts to join national or regional professional and disciplinary associations and community college associations and are less likely to attend meetings. This lack of inclusion and interaction of part-time instructors at two-year institutions causes the whole faculty to be diverse and fragmented. According to Outcalt, other than sharing the title of community college instructor, the community college professorate are a disparate body, which could lead to faculty dissatisfaction for both full- and part-time faculty.

Not only are institutions and faculty members affected when the number of part-timers increases, the academic profession is also affected. Part-time appointments reduce the professional autonomy of faculty as a group, especially since part-time faculty members have little or no opportunity to be involved in peer review and shared governance (Hamilton, 2007). As part-time positions are increasing, tenured positions are decreasing. With tenure comes academic freedom, the protection of faculty members to voice their opinions (Schuster & Finkelstein, 2006), As tenured positions decrease, fewer faculty members are afforded academic freedom, reducing or eliminating the exchange of ideas by faculty members without the fear of termination. In addition, as full-time positions dwindle and the prospect of teaching at a community college becomes less attractive, it will be harder to attract highly qualified individuals to the profession. Institutions, faculty members and the teaching profession are all affected by the increasing use of part-time faculty. Students are also affected, both positively and negatively.

Ramifications for Students

Having adjunct faculty in the classroom can be both advantageous and disadvantageous to students at two-year institutions. Students benefit when adjuncts are also practitioners in their fields. Adjuncts who practice and teach concurrently are typically able to apply practice to theory in their classrooms. In addition, those part-timers who practice in the fields in which they teach can provide their students with the most current information and latest developments in those fields (Louziotis, 2000).

The presence of increasing numbers of part-time faculty on campus can weaken the link between the institution and the student. Faculty members at two-year institutions generally serve as the principal point of contact between students and the institution (Outcalt, 2002). Since community college students typically interact with their instructor more than any other staff member or administrator, having part-timers who are inexperienced and uncommitted to the students and the institution can be disastrous to the success of the both the students and the institution. For those adjunct faculty members who teach at multiple institutions each semester, keeping protocols straight, such as remembering to do the right thing at the right time at the right campus, can be challenging (Murphy, 2003).

Umbach (2007) found that part-time faculty at four-year institutions interact less frequently with students than their full-time counterparts. Typically, part-timers are on campus for a limited time and, for many, their schedules do not permit time for office hours (Murphy, 2003). In addition, some part-timers have neither an office nor office telephone numbers. Consequently, it can be difficult for students to contact and meet with adjunct instructors outside of the classroom. Fortunately, some part-timers communicate with their students through email, *Blackboard* and virtual office hours (Robinson, 2008). However, according to Miller, Pope and

Steinmann (2005), students at two-year institutions are less likely to seek out their instructors outside of class or meet with their advisors more than is required. Therefore, at two-year institutions, infrequent interactions between instructor and student may be because of the nature of the student population and not the presence of part-time faculty.

Research findings are mixed as to the effects of adjunct faculty in the classroom on the success and achievement of students. Studying the delivery of undergraduate education in a four-year setting, Umbach (2007) found that part-time faculty spend less time preparing for class, have lower academic expectations for students and are less apt to use active and collaborative techniques than their tenured and tenure-track counterparts. Jacoby (2006) concluded that community college graduation rates decrease as the proportion of part-timers employed by an institution increases. Studying associate's degree completion at California community colleges, Jaeger and Eagan (2009) found that neither the proportion of part-timer faculty members employed at an institution nor the proportion of instruction offered by part-timers had a significant effect on associate's degree completion rates. However, Jaeger and Eagan did find that a 10% increase in the overall proportion of credits earned in courses taught by part-time faculty reduced the student's likelihood of earning an associate's degree, representing a modest, yet significant, negative effect on degree completion. On the contrary, Ronco and Cahill (2004) studied the effects of instructor type on student outcomes and concluded that there were no statistically significant differences in student outcomes when students were taught by part-time or full-time faculty.

Bias in research must be considered when reviewing the literature concerning part-time faculty and student outcomes. Most research is conducted by full-time faculty members who are tenured or seeking tenure. Since full-time, tenured positions are threatened by the increasing

number of part-time faculty positions, the researchers in those positions could be unintentionally introducing an implicit-bias into their studies in which even they are not aware (Banaji, Hardin, & Rothman, 1993).

Eagan and Jaeger (2008) indicate that students who take gatekeeper courses with part-time faculty are less likely to return for their sophomore year. A gatekeeper course is defined as any large introductory course, such as Biology 101 and Chemistry 101, that has 90 or more students in the class and must be successfully passed before the student can move on in the sequence of courses. This widely publicized study (Glenn, 2008) has provided fuel to the opponents of the increasing use of part-time faculty. However, Robinson (2008) contends that Eagan and Jaeger did not consider the fact that adjunct faculty typically get course sections that full-time faculty do not want. Typically, the survey classes taught by adjunct faculty have more students in each section and are more difficult to teach than the classes taught by full-time faculty members. In addition, the classes are generally filled with students with wide ranges of reading and writing skills, knowledge bases, levels of interest, and levels of commitment to learning (Murphy, 2003). Also, Robinson contends that the study does not take into account the teaching experience or level of educational attainment of the part-time faculty members.

Variation in Use of Part-time Faculty

The use of part-time faculty is not equal among two-year institutions. At one community college Jacoby (2005) found that 37% of the part-time faculty taught full-time course loads (15 credit hours), indicating that only the absence of a long-term contract separated them from their full-time faculty counterparts. However, some postsecondary systems have regulations concerning the use of adjunct faculty. One such regulation limits the amount of instruction that can be performed by adjuncts to 40% of all instruction, while a regulation in another system

limits the amount of undergraduate instruction taught by adjuncts to 33% (Gappa & Leslie, 1993). Some states limit the amount of money that can be spent on part-time appointments, such as a maximum of 40% of total dollars available for faculty salaries can be used for part-time and overload appointments. State limits and regulations on part-time faculty employment are not explored further in this study since national data was used.

Some two-year institutions depend more heavily on adjunct instructors than others. Rio Salado College, one of ten public community colleges in Arizona, teaches approximately 60,000 for-credit and noncredit students with 27 full-time faculty and 1,000 adjunct faculty (Ashburn, 2006). Rio Salado is almost entirely virtual. The college has only one full-time instructor in most fields and each full-time faculty member takes on the role of an entire department at a typical community college (Ashburn, 2006).

Some academic disciplines rely more heavily on part-time faculty than others. Although the greatest percentage of both part- and full-time faculty are employed in the Science and Engineering field, Eagan (2007) found that the percentage of part-time faculty in that field, 33.3%, is lower than the percentage of full-time faculty teaching in that field, 37.7%. However, the percentage of part-time faculty in the Arts and Humanities field, 23.9%, is greater than the percentage of full-time faculty, 20.9%.

Academic departments also utilize part-time faculty differently. Depending on the discipline, part-timers may be more or less likely to teach lower- versus upper-level courses, or lab versus lecture courses (Maynard & Joseph, 2008). Levin, Kater and Wagoner (2006) suggest that part-time faculty are of two distinct strata—contract labor and specialized labor. Part-time faculty in the liberal arts area are not hired for their expertise, instead, they are less expensive than full-time faculty and can teach large numbers of students, many of whom are only fulfilling

their general education requirements and will neither advance to higher levels within that discipline or enter the workplace in that academic area (Levin, 2007). In contrast, part-timers in the occupational and professional program areas are hired for their specialized knowledge or because of a labor shortage of full-time faculty. They can be viewed as *corporate trainers* for their fields and, although they are less expensive than full-time faculty, the part-time faculty members in those areas provide needed expertise that is not readily available (Levin).

One important reason for the increase in part-time faculty at two-year institutions is the availability of individuals willing to work part-time (Wallin, 2005). The next section considers the part-time faculty themselves, exploring who those individuals are and the advantages and disadvantages to part-time employment.

Part-time Faculty Considerations

Who are Part-timers?

In Fall 2003, women and men had essentially equal representation in part-time faculty appointments at two-year institutions. However, as indicated in Table 1.1, by Fall 2007, women represented the majority. In Fall 2003, 50.8% of the part-time faculty members were female (IPEDS Fall, 2003); as compared to only 40% in Fall 1988 (Eagan, 2007). By Fall 2007, however, 52.6% of the part-time faculty members were female (IPEDS Fall, 2007). While the total number of part-time female faculty members at two-year institutions increased by 7.3% from 2003 to 2007, the total number of their male counterparts declined by almost one percent. According to Eagan, the average age of part-time faculty members is 49.2 years versus 49.8 years for full-time faculty.

Racial diversity among part-time faculty has increased since 1988. Although white faculty members are still the majority, only 83.8% of faculty members identified as white in

2004 as opposed to 91.4% in 1988 (Eagan, 2007). The percentages of part-time faculty have increased at a greater rate than full-time faculty among all minority categories except in the Asian category. Interestingly, Eagan indicates that the percentage of faculty identifying as Asian or Asian American has been increasing at a greater rate for full-time faculty, from 1.7% in 1998 to 5.5% in 2004, than for part-time faculty, from 1.7% to 2.9%.

Although part-timers at two-year institutions do not possess long-term contracts, their average employment period at a single institution was 7.0 years, up from 5.9 years in 1993, indicating that they are not as transient and instable as they are depicted in the media (Eagan, 2007). According to the Snyder, Dillow, and Hoffman (2008), adjunct faculty work an average of 15 hours per week at the two-year institution where they teach—12.8 hours on paid tasks and 2.2 hours on unpaid tasks. They spend 90.8% of their time teaching. Their total average hours worked per week at the institution and outside the institution, both paid and unpaid, are 38.8 hours compared to 50 hours for full-time faculty. Full-time faculty members work an average of 42.1 hours on paid tasks and 4 hours on unpaid tasks at the institution where they teach and spend 72.3% of time on teaching, 7.9% on research and 19.8% on other tasks.

Through the years, the educational attainment of part-time faculty at two-year institutions has changed slightly. Full-time faculty members generally have obtained higher degrees than their part-time colleagues. However, part-time faculty members hold significantly more professional degrees than their full-time counterparts (Eagan, 2007).

Nearly 72% of part-timers at two-year institutions indicate having at least one job outside of their part-time teaching position, typically in other professional field. According to Eagan (2007) less than 11% of part-time community college faculty reported having teaching appointments, either full- or part-time, at more than one postsecondary institution.

Approximately 16% of full-time faculty report having more than one job. Many full-time faculty members serve as consultants for other institutions, nonprofit organizations, or businesses (Eagan).

Why Individuals Teach Part-time

Just as part-timers are demographically diverse, their motivations for teaching part-time are diverse. Part-timers accept part-time positions for personal satisfaction, professional career advancement, academic career advancement, and economic gain (Louziotis, 2000). Some adjunct faculty teach part-time while also working outside of academe as practitioners in their fields of expertise (Brown, 2007), some are tenured professors retired from four-year universities (Green, 2007), and others have family responsibilities which require the flexibility a part-time position imparts (Wolf-Wendel, Ward, & Twombly, 2007). There are other part-timers who desire full-time teaching positions and teach part-time until they can secure a full-time teaching position (Pence, 2009).

Brown (2007), a full-time librarian at a university, teaches part-time on Saturdays in the graduate program at another university. Although she concedes that the pay per hour is low and that she spends anywhere from 5 to 20 hours per week prepping for class and grading assignments, she is passionate about the field of library science and teaching allows her to share that passion. In addition, teaching gives her access to a variety of new technologies in the field and forces her to keep current on professional literature.

Houlihan (2009) taught a course at a state university while holding a tenured position at a nearby private university. Although he did appreciate the extra money, his main goal was to teach in a different environment. Unlike at the private university, he encountered a diverse student population and also had his first student who could not afford a textbook. Houlihan

claims he was hired through email and was never interviewed for his part-time position. He shared an office with 12 other adjunct faculty members.

Some individuals teach part-time because of family obligations. There are parents of young children who choose to devote the majority of their time to their children and family, or individuals whose partner is dealing with a serious illness, or whose parents are elderly and require ongoing assistance (Murphy, 2003). Although women are far more likely to be affected by the constraints of marital and family roles and choose part-time teaching appointments, there are men who have assumed care-giving roles and have chosen part-time work to accommodate their other responsibilities (Gappa & Leslie, 1993).

Other individuals teach part-time because there are few full-time positions available. Cuts in full-time faculty, greater reliance on short-term teaching contracts and an excess of individuals with doctoral degrees and masters degrees in relation to the number of full-time teaching positions available (Pope, 2008) have made it impossible for many very fine scholars and excellent teachers to find full-time work at the postsecondary level (Murphy, 2003). Some individuals teach part-time due to geographical immobility (Gappa & Leslie, 1993). These individuals are married or partnered or have other family commitments that keep them in one geographic location where full-time positions are limited. Some part-timers who would prefer full-time teaching positions are able to piece together part-time teaching positions or a combination of teaching and administrative positions at several institutions creating a mosaic resembling a full-time position, but without the contract or the benefits (Gappa & Leslie). Others subsist on pay from other occupations or support from better-situated spouses and partners (Murphy). Pence (2009) graduated with a doctorate in analytic philosophy when there was a record number of Ph.D.s in the humanities. He worked as an adjunct professor at three

community colleges, taught swimming lessons during the summer and started a lucrative real estate career before finally landing a full-time teaching position.

The majority of part-time faculty members are committed to the institutions in which they teach and to their teaching careers. In their study at a four-year institution, Maynard and Joseph (2008) measured affective commitment—when an individual is proud to tell others they are associated with an institution. They found that both part-time faculty who would prefer full-time positions and those preferring part-time positions show higher commitment to their institution than full-time faculty. Antony and Valadez (2002) found that a majority of part-time faculty at both two- and four-year institutions strongly agreed that they would choose an academic career again, with a greater majority of part-timers at two-year institutions agreeing than at four-year. Therefore, Antony and Valadez conclude that individuals who work as part-time faculty are strongly committed to academic work and, although they may be dissatisfied with some elements of their position, it does not lessen their commitment.

Unfortunately for part-time faculty members who would prefer a full-time position, there is little mobility from part-time to full-time positions. Schuster and Finkelstein (2006) found that 81.7% of current higher education full-time faculty reported having either no prior academic experience or only full-time academic experiences prior to their current full-time position. The remaining 18.3% reported having a part-time teaching experience before attaining full-time status, indicating that moving from part-time to full-time status is atypical. Of the faculty moving from part-time status to full-time, sixty-seven percent were employed at four-year institutions, while only 25% of faculty members at two-year institutions were able to move from part-time to full-time academic positions. This suggests that those part-time faculty members who would prefer a full-time position, particularly at two-year institutions, may never get one.

Categories of Part-time faculty

Tuckman categorized part-time faculty members in 1978 (as cited by Gappa & Leslie, 1993, pg. 46). His taxonomy contains seven categories—*semiretireds, graduate students, hopeful full-timers*, *full-mooners, homeworkers, part-mooners* and *part-unknowners*. *Semi-retireds* are former full-time academics or professionals who are teaching part-time and are less concerned about future employment than part-timers in the other categories. *Graduate students* are typically teaching part-time in institutions other than the one in which they were pursuing a graduate degree. *Hopeful full-timers* include those who want full-time positions and those who are working at one or more institutions under several part-time contracts; however, the multiple part-time positions constitute a full-time load. *Full-mooners* are those individuals who hold another primary job of at least 35 hours a week and have little time to prepare lectures. *Full-mooners* include tenured full-time faculty members who are teaching overload courses. *Homeworkers* are those part-timers who are limited to part-time employment due to obligations at home, such as caring for children or other relatives. The *homeworker's* part-time salary may be the sole income for the household or may supplement the income of a spouse. *Part-mooners* consist of individuals who work part-time in one academic institution and work elsewhere for less than 35 hours. Finally, *part-unknowners* are part-time faculty whose reasons for working part-time are unknown. Finding Tuckman's categories to be too narrow, Gappa and Leslie (1993) developed their own. They categorize part-time faculty into four categories—*career-enders*; *specialists, experts*, and *professionals*; *aspiring academics*; and *freelancers*.

The *career-enders* category includes former full-time academics who are now teaching fewer hours and are not concerned with future job prospects, individuals who are fully retired from other jobs and individuals who are transitioning from well-established careers, mostly from

outside of academe, to a pre-retired or retired status with part-time teaching playing a significant role.

In the category entitled *specialist, expert, or professional* are those part-timers who have careers outside of academe, but choose to teach for the love of it rather than for money. These *specialists, experts or professionals* either teach in their discipline or teach as generalists.

Categorized as *aspiring academics* are those individuals who teach part-time because a full-time position in their field is unavailable or because they want to establish a track record at a particular institution that will help them become a candidate for the next opening in their field (Gappa & Leslie, 1993). Included in this category are part-timers who possess the terminal degree and want a full-time academic career and doctoral students who have completed their course work and are only lacking their dissertation (ABD). In addition, this category comprises part-timers who have put together numerous part-time teaching positions at several institutions or a combination of teaching and administrative positions at one institution to create what resembles a full-time position but lacks the full-time salary and benefits.

The final category, *freelancers*, is composed of part-timers who hold several part-time jobs or have family obligations which prevent them from working full-time. Regardless of their situation, *freelancers* are part-time academics by choice and are not *aspiring academics*. Adjunct faculty members categorized as *career-enders*; *specialist, expert, or professional;* and *freelancers* all teach part-time by choice, while *aspiring academics* teach part-time as they await full-time positions.

In Jacoby's (2005) exploration of part-time community college faculty and their desire for full-time tenure-track positions, he narrowed part-timers into only two categories, *voluntary part-time*—those part-timers preferring a part-time teaching position and *involuntary part-time*

those preferring a full-time teaching position. Focusing his quantitative study on a single institution located in a densely populated area where multiple community colleges coexist, Jacoby found that fifty-four percent of the part-time faculty indicated they would prefer a full-time teaching position. Younger part-time faculty members are more likely to desire full-time tenure track employment than older part-timers. Paid employment outside of the institution reduces the likelihood of preferring a full-time teaching position. Individual and family characteristics; such as gender, presence of dependent children or dependent adults at home, and part-time position as the only source of income; did not significantly affect the desire for a full-time position. Interestingly, despite their stated preference for full-time employment, less than half the part-timers reported that they would seek full-time work soon, indicating that desire alone does not translate into a job search.

As did Jacoby, I separate part-time faculty into involuntary and voluntary part-time groups in this study. Although Gappa and Leslie (1993) offer excellent groups in which to categorize part-time faculty, I am most interested in whether part-timers' employment preference is congruent with their work status. I am interested in the differences in the structure of satisfaction and the differences in the factors that influence satisfaction among the faculty groups based on employment preference. Comparing Gappa and Leslie's categories to the categories I am using, part-timers categorized as *career-enders*; *specialist, expert, or professional;* and *freelancers* by Gappa and Leslie all teach part-time by choice; therefore, that group equates to voluntary part-timers. Gappa and Leslie's *aspiring academics* teach part-time as they await full-time positions; hence, that group equates to involuntary part-timers.

Part-time positions have both advantages and disadvantages. The advantages of part-time positions include having time for another job or career, time to care for family and free time for

other endeavors. For those adjunct faculty who prefer a part-time position, part-time is close to idyllic. However, there are many disadvantages to part-time positions.

Disadvantages of Part-time Work

Although part-timers are expected to perform at the same level as their full-time counterparts, they generally receive less institutional support (Gappa & Leslie, 1993). Adjuncts typically do not qualify for the benefits—medical insurance, retirement, and sabbatical leave—that full-time faculty members receive. Some part-timers are denied the parking privileges enjoyed by full-time faculty, although part-times have the least amount of time to get to and from classes (Murphy, 2003).

In addition, part-timers receive minimal pay (Levin, 2005). Typically, part-time faculty members are paid per course and are not compensated for time spent outside of the classroom with students (Schmidt, 2008). In addition, Schmidt indicates that part-timers do not typically receive cost of living increases when full-time faculty do, nor receive merit pay increases. For many part-timers receiving substandard pay forces them to teach as many courses as they can get at several institutions in order to make a decent living (Murphy, 2003). Some may teach anywhere from two to seven courses at different schools during any given term. For example, one part-timer teaches three days at an institution close to home and two days at an institution 50 miles away, while another part-timer teaches two mornings at an institution close to home, two afternoons at a high school approximately 35 miles away and at another postsecondary institution on another day (Grasgreen, 2008). Although many part-timers receive a set pay amount per course taught, they must incur the added expenses of travel, which can be considerable when gas prices escalate. Therefore, as their work expenses increase, yet their income remains the same, part-timers experience a reduction in spending power. The only way to

increase that spending power is to increase their teaching load at one of the institutions at which they teach.

Those part-timers with teaching positions at numerous institutions have the added expense of travel. When gasoline prices are high, their transportation costs increase; however, rarely do they receive cost-of-living raises (Grasgreen, 2008). The struggle to simply make a living can be ruinous to the professional lives of those adjunct faculty members who desire full-time positions since it prevents them from moving forward in their fields (Hanford, 2007).

Very few part-timers have job security. They have no assurance of having classes to teach on a regular basis or any guarantee that they will be teaching the next semester. Although some instructors are fortunate enough to be assigned courses for continuing semesters, they still remain at the mercy of enrollment trends. If full-time instructors' classes fail to reach minimal enrollments and are cancelled, full-timers often take over part-timers' classes (Murphy, 2003).

Adjunct faculty members have few contacts among the faculty and administration (Gappa & Leslie, 1993). They seldom get evaluated or receive mentoring from full-time faculty or administrators; thereby receiving no recognition for excellent teaching and getting no direction for substandard teaching (Murphy, 2003). Many part-timers are relegated to second class status (Levin, 2005) and are more vulnerable than their full-time counterparts to "coercion from students, full-time faculty colleagues, administrative leaders, and forces outside the university" (Hamilton, 2007, pg. 36).

Part-timers receive little collegial support on campus and within their academic discipline (Gappa & Leslie, 1993). They are often ostracized by their full-time colleagues who neither know nor care who part-timers are and who assume they are sub-standard (Murphy, 2003). They are often excluded from committee, college and department meetings. In addition, Murphy

indicates that part-time instructors usually cannot apply for funding for faculty development programs, NEH grants, summer institutes, summer seminars, and summer stipends and are not eligible for nominations for many scholarships, national awards, distinctions, and prizes in their disciplines.

Typically, part-timers have no office space to meet with students, complete paperwork, or store materials on campus (Murphy, 2003). In addition, they frequently have no office telephone numbers, no mailbox, no computer access, are not listed on mailing lists and some have only limited access to photocopy services and the library. Part-timers generally do not have a voice in the selection of textbooks and many are recruited at the last minute, leaving little time to prepare for their classes (Schmidt, 2008).

Although there are many drawbacks to teaching part-time, there are many individuals willing to accept part-time positions. The number of part-timers teaching at two-year institutions increased 3.6% from 2003 to 2007, from 239,794 to 248,530, while the total number of full-time faculty members decreased by 2.8% during the same period (IPEDS Winter, 2003, IPEDS Winter, 2007). In addition, the proportion of part- to full-time faculty continues to increase, 68.2% in 2007 as compared to 66.8% in 2003. Part-timers may find satisfaction in these positions. An exploration of job and faculty satisfaction follows.

Faculty Satisfaction

Institutions continue to employ part-time faculty and individuals continue to accept part-time appointments. I contend that community colleges will continue to employ part-time faculty as long as the economic advantages for the institution outweigh the disadvantages associated with the practice and as long as there are individuals willing to accept part-time positions.

Therefore, it is appropriate to study part-time faculty satisfaction and the factors influencing that attribute.

Faculty satisfaction is defined for the purposes of this study as the satisfaction that faculty members derive from their jobs; therefore faculty satisfaction and job satisfaction are synonymous. Job satisfaction is a multidimensional concept that has been highly researched, yet its antecedents and outcomes are still uncertain. In the following section, faculty, or job satisfaction, are defined. The importance of job satisfaction are explored, as are faculty satisfaction studies.

Job Satisfaction Defined

Locke (1968) defines job satisfaction as "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values." Job values are ideas, such as a sense of achievement; or objects, such as a good wage, that one considers beneficial to one's welfare and that one will act on to gain or keep (Colquitt, LePine, & Wesson, 2009). Therefore, job satisfaction can be viewed "as the function of the perceived relationship between what one wants from one's job and what one perceives it as offering or entailing" (Locke).

Complicating the definition of job satisfaction is the abstract nature of a job. Each job is composed of a combination of tasks, roles, responsibilities, relationships, benefits and rewards which pertain to a particular person in a particular organization (Locke, 1968). An individual may be satisfied with some facets of his or her job, such as pay and benefits, while being dissatisfied with other facets. Overall job satisfaction is the sum of an individual's evaluations of each element of which the job is comprised.

Job satisfaction is based on personal perceptions, appraisals, and values; and each job has a different combination of tasks and facets for each individual in each organization; hence, job satisfaction is unique to each person. Two individuals with the same job in the same organization have diverse task combinations, perceive their positions differently and have dissimilar values; therefore, they may experience different degrees of job satisfaction.

The same is true for faculty members. Teaching is a common responsibility among faculty at two-year institutions. However, each faculty member has a different teaching load in regards to number of credit hours, difficulty of subjects, and level of student taught than his or her fellow faculty members. In addition, each faculty member advises a different number of students and works on different committees. Furthermore, some faculty members perform administrative duties while others do not. Each faculty member's unique combination of responsibilities influences his or her distribution of effort and thus the evaluation of his or her job. Therefore, faculty satisfaction is different for each faculty member.

Faculty satisfaction is the favorable attitude a faculty member has about his or her job. Faculty satisfaction occurs when a faculty member positively perceives his or her job as fulfilling his or her needs. Some of the many facets associated with a faculty position that can influence faculty satisfaction include authority to make decisions; presence of, or quality of, technology-based activities, equipment, and facilities; institutional support for teaching improvement; workload; salary; benefits; and overall satisfaction.

Importance of Faculty Satisfaction

Faculty satisfaction is important to the faculty member, the institution, and the community. For the individual, work fills the greater part of the day; therefore, being satisfied with one's job is crucial (Herzberg, Mausner, & Snyderman, 1993). In addition, job satisfaction

is positively correlated with life satisfaction (Newstrom, 2007). For the institution, positive job attitudes can increase productivity, decrease turnover and absenteeism and increase organizational citizenship behavior. For the community, the public enjoys the fruits of faculty labor—a more educated and skilled population and labor force. Additionally, since taxpayer dollars fund a great portion of faculty salaries, the community benefits from the proper utilization of human resources (Herzberg, Mausner, & Snyderman) and the financial efficiencies gained by job satisfaction.

Job attitudes are reasonably good predictors of behaviors. Positive job attitudes, such as job satisfaction, help predict constructive behaviors; while negative job attitudes, such as job dissatisfaction, help predict undesirable behaviors (Newstrom, 2007). Ostroff (1992) found that organizations in which employees are more satisfied are more effective than organizations with less satisfied employees, indicating that satisfied employees are possibly more motivated and their work performance is greater. Judge, Bono, Thoresen, and Patton (2001) did find that a positive relationship exists between overall job satisfaction and general job performance. Job satisfaction is also positively correlated to organization citizenship behavior—behavior that is beyond the expected job duties and outside of the explicit reward system that promotes the effective functioning of the organization (Chiu & Chen, 2005). A relationship exists between satisfaction and attitudes (Ostroff); however, research findings on the link between job satisfaction and absenteeism are mixed (Hackett & Guion, 1985; Johns, 1978).

Job satisfaction is positively linked to decreased turnover (Griffeth, Hom & Gaertner, 2000; Ostroff, 1992); however, a high level of job satisfaction does not guarantee that a faculty member will not leave an institution. A faculty member may leave the institution for reasons other than job dissatisfaction, such as for a new professional opportunity, to be closer to family,

or to accommodate a spouse's career (Ambrose, Huston, & Norman, 2005). In addition, a faculty member with otherwise high satisfaction may leave an institution following a *shock event*, such as when an administrator treats him or her unfairly. According to McShane and Von Glinow (2008), a shock event generates strong emotions that energize employees to think about and seek alternative employment. Similarly, a dissatisfied faculty member will not necessarily leave the institution to seek a better position. Hagedorn (2000) indicates that an individual with low levels of job satisfaction may remain at the institution indefinitely. Several negative behaviors are associated with job dissatisfaction, including turnover, absenteeism, tardiness, theft, violence and poor organizational behavior (Newstrom, 2007). Job dissatisfaction is typically associated with combinations of negative behaviors, such as neglect, which occurs when faculty members reduce their work effort, pay less attention to quality, and increase absenteeism and lateness (McShane & Von Glinow).

Job dissatisfaction can spread through a department or organization causing low morale. Individuals often take social cues from their work associates and adapt their own attitudes to conform to the attitudes of the group, which may lead to low morale throughout the department or organization (Newstrom, 2007). Part-time faculty dissatisfaction could lead to low morale among other part-time faculty and even spread to full-time faculty. Therefore, understanding part-time faculty and the factors that contribute to it is imperative.

Faculty Satisfaction Studies

Faculty satisfaction studies vary. There are studies that use qualitative, while others use quantitative research methodologies. Data are gathered from single institutions, multiple institutions, or national data sets. Some studies explore facets of job satisfaction (Kim, Twombly & Wolf-Wendel, 2008), while others examine overall or global job satisfaction (Hagedorn,

2000). A number of studies investigate the relationship between various factors and job satisfaction; however, most are atheoretical. Many studies consider full-time faculty at four-year institutions (Ambrose, Huston & Norman, 2005), while others compare full- and part-time faculty at four- and two-year institutions. Although a few studies consider faculty satisfaction of only full-time faculty at two-year institutions (Murray & Cunningham, 2004; Wolf-Wendel, Ward, & Twombly, 2007), even fewer studies analyze the factors that influence part-time faculty at two-year institutions. All of the studies reviewed found that faculty at all institutional types are basically satisfied with their jobs, including part-time faculty.

Antony and Valadez (2002) explored part-time faculty satisfaction at both four- and two-year institutions. Using the NSOPF: 93, they employed a multidimensional measure of satisfaction by grouping the 15 satisfaction items included in the survey into four dimensions of satisfaction: Satisfaction with Personal Autonomy, Satisfaction with Students, and Satisfaction with Role Demands and Rewards, and Overall Job Satisfaction. Part-time faculty at both types of institutions expressed satisfaction with personal autonomy— a measure indicating how satisfied faculty are with their authority to develop course content and to work independently; however, part-time faculty at four-year institutions were significantly more satisfied and the standard deviation indicated a much greater consistency in their levels of satisfaction. Antony and Valadez found no significant difference in the satisfaction of full- and part-time faculty with the demands and rewards category—workloads, job security, opportunities for advancement, pay or benefits. The third category, satisfaction with students, measures faculty members' levels of satisfaction with the time available to advise students and with the quality of students (Antony & Valadez). Part-time faculty at both institutional types indicated low levels of satisfaction on this scale; however, part-time faculty members at four-year institutions were significantly more

satisfied with students than their two-year counterparts. In the final category, overall job satisfaction, part-time faculty expressed moderately high levels of satisfaction; however, part-time faculty at two-year institutions reported a significantly higher degree of satisfaction than their four-year colleagues.

Toutkoushian and Bellas (2003) found that part-time faculty are marginally more satisfied than full-time faculty at all institutional types with their jobs overall. Kim, Twombly and Wolf-Wendel (2008) explored only one facet of job satisfaction, instructional autonomy, at community colleges. Instructional autonomy is the authority faculty members have to make decisions in regards to the content and methods used in their instructional activities. They found no significant difference in faculty satisfaction with instructional autonomy between full- and part-time faculty members. In fact, they found the degree of satisfaction with instructional autonomy and the factors that influence this satisfaction to be more similar than distinct between full- and part-time faculty members.

Eagan (2007) studied full- and part-time faculty at two-year institutions and found that those individuals have become more satisfied with the terms of their employment over time. He used data from the 1988, 1993, 1999 and 2004 administrations of the NSOPF for his longitudinal study. According to Eagan, in 1988, roughly 90% of full- and part-time faculty indicated they were somewhat or very satisfied with their job, that figure increased slightly to 92% in 2004 for both faculty types. Part-timers are most dissatisfied with the benefits they receive through their part-time appointment; however, their dissatisfaction has diminished over the years—70% of part-timers reported being either dissatisfied or somewhat dissatisfied in 1988 compared to only 49.4% in 2004. Part-time faculty members are dissatisfied with their salaries; however, they have become less dissatisfied even though part-time salaries have remained fairly constant over the

sixteen-year span of the surveys. Interestingly, full-timers are also dissatisfied with their salaries, but have become less so over the years. Eagan further concluded that part-time faculty members are much more satisfied with their workload than their full-time counterparts. Part- and full-time faculty members are equally satisfied with autonomy, their ability to decide the content of the courses they teach.

Although part-time faculty members at two-year institutions are satisfied with their jobs, part-time faculty members are not a homogeneous group. One aspect in which part-timers differ is their work status preference. Voluntary part-timers prefer part-time employment at the institution, whereas, involuntary part-timers would prefer a full-time position. It is possible that there are differences in the satisfaction of voluntary and involuntary part-timers.

Work Status Congruence

Not all part-time faculty want part-time employment; therefore, the work status of some part-timers is not congruent with their desired work status. This incongruence may lead to diminished job satisfaction. An exploration of industrial-organizational psychology literature produced two conceptual frameworks—underemployment and person-job fit—which provide insight into the relationship between work status congruence on job satisfaction.

An incongruent work status is one dimension of underemployment. Underemployment is a conceptualization of a discrepancy between satisfactory employment and current employment (Feldman, 1996). Feldman provides five dimensions of underemployment: (1) possessing more formal education than the job requires, (2) involuntarily employed in a field outside of formal education, (3) possessing higher work skills and work experience than the job requires, (4) involuntarily engaged in part-time or temporary work, and (5) earning a salary of 20% less than at the last job held. Few faculty, either part- or full-time, are likely to possess more education

than the job requires, teach in an area unrelated to their formal education, or possess more experience or skill than their teaching position requires (Maynard & Joseph, 2008). Therefore, underemployment according to those dimensions is unlikely. However, involuntary part-time faculty members could experience underemployment on the fourth dimension, since they would prefer a full-time position. Nevertheless, true underemployment exists only when employment characteristics are inconsistent with the employee's desires (Feldman, 1996).

Individuals who are underemployed in one or more ways are more likely to experience a variety of negative outcomes (Maynard & Joseph, 2008). Underemployment is negatively correlated with job satisfaction (Khan & Morrow, 1991) and is linked to lower levels of psychological well-being and general mental health (Feldman, 1996).

Theoretical work in the area of person-job fit provides an explanation for the negative consequences of work status incongruence. Person-job fit has two dimensions—*demands-abilities fit* and *needs-supplies fit*. (Kristof-Brown, Zimmerman, & Johnson, 2005). *Demands-abilities fit* is the match between an individual's knowledge, skills and abilities, and the requirements of the job; while *needs-supplies fit* occurs when the needs, desires, and preferences of the individual are met by the job performed (Carless, 2005). Incongruence of either type creates psychological stress and can hinder successful job performance and job satisfaction. All faculty members are believed to be well matched on the *demands-abilities fit* dimension (Maynard & Joseph, 2008). However, a mismatch occurs in the *needs-supplies fit* area when a part-time faculty member prefers a full-time position, but cannot get one. Subjective fit was found to be a better predictor than objective fit (Carless). Studies indicate that person-job fit perceptions are positively correlated with job attitudes, such as job satisfaction (Carless;

Hambleton, Kalliath & Taylor, 2000) and organizational commitment; and negatively correlated with intention to quit (Kristof-Brown, Zimmerman, & Johnson).

In their study, Maynard and Joseph (2008) disaggregated faculty at a four-year institution into three groups—full-time, part-time who indicated they would prefer a full-time position (involuntary part-time) and part-time who indicated they want part-time (voluntary part-time). Considering the *advancement*, *compensation*, *recognition*, and *security* facets of job satisfaction, they found that work-status preference is a predictor of faculty satisfaction. Full-time faculty reported greater satisfaction with *security* than voluntary part-time faculty, who reported greater satisfaction than involuntary part-time faculty. Significant but small differences were found for satisfaction with recognition, with voluntary part-time faculty reporting more satisfaction than full-time faculty. Involuntary part-time faculty members were more dissatisfied with advancement, compensation, and security than full-time or voluntary part-time faculty; however, they were just as satisfied with other aspects of their positions, relative to the other two other groups. The results of Maynard and Joseph's study suggest that part-time faculty positions are not inherently dissatisfying. In fact, satisfaction levels of voluntary part-time faculty are generally more similar to those of full-time faculty than to part-timers who desired full-time employment.

Accordingly, considering a faculty member's work status preference is imperative when attempting to understand or predict his or her job attitudes. Therefore, in this study, faculty members will be split into three groups—full-time, voluntary part-time, and involuntary part-time—to determine if satisfaction is different for each group and if the factors that are known to influence part-time job satisfaction influence the satisfaction of each group differently.

There is little indication as to which factors influence part-time faculty satisfaction. Most of the faculty satisfaction research lacks a theoretical basis; however, several theories found in job satisfaction and organizational behavior research may apply. An in depth look at the factors that could potentially influence part-time faculty satisfaction is in order. A discussion follows.

Satisfaction Factors

Perception of Equity

Perception of equity, based on equity theory, may provide insight into understanding how individuals believe they are treated at work (Denhardt, Denhardt & Aristigueta, 2009). Equity theory acknowledges that satisfaction does not only depend on an individual's own beliefs and circumstances, but also on what happens to other people (Colquitt, LePine, & Wesson, 2009). According to Adams (1963), equity theory postulates that an individual compares the ratio of his or her perceived job outcomes to inputs to that of an *Other*. Outcomes include, but are not limited to, pay, benefits, status symbols and intrinsic rewards, while inputs include, but are not limited to, education, experience, skills and abilities, seniority and effort (Colquitt, LePine, & Wesson). *Other* can be any person or group that the individual uses as a referent, varies from one person to another and is not easily identifiable (McShane & Glinow, 2008). Therefore, *Other* can be a coworker, the person who held the position previously, a person in another job, a relative or friend, or a person in a job in which the individual aspires. Inequity exists when the ratio of an individual's perceived job outcomes to inputs is psychologically contrary to what he or she perceives is the ratio of outcomes to inputs of the *Other*. Adams points out that perception is an important aspect of the theory. Although perception and reality may be in close accord, the relation necessary for inequity to exist is psychological, not logical. Feelings of inequity can

result from perceptions of under-reward and over-reward (Newstrom, 2007) and are negatively correlated with job satisfaction (Adams).

In the case of a faculty member, the referent *Other* may be other faculty members, either full- or part-time, or any other person with whom the individual chooses to compare himself or herself. Feelings of inequity could result if part-timers feel under-rewarded or full-timers feel over-rewarded. Therefore, faculty members' perception of equity could influence their job satisfaction.

In their study of full-time faculty satisfaction at four-year universities, Terpstra and Honoree (2004) found a significant correlation between overall university salary level and job satisfaction and pay satisfaction indicating that academic faculty are more satisfied with their jobs and pay when their university's overall-salary level is high, regardless of their own pay. This finding is in keeping with the findings of Herzberg, Mausner, and Snyderman (1993) who found that the perception of equity of salary is a greater source of job satisfaction than the amount of salary itself.

Kim, Twombly and Wolf-Wendel (2008) considered perception of equity factors in their study of satisfaction with autonomy at community colleges. Faculty opinions about teaching being rewarded by the institution, and part-time faculty members, female faculty members, and minority faculty members being treated fairly were considered as variables in Kim, Twombly and Wolf-Wendel's study. Exploring only one facet of job satisfaction, they found that opinions of how faculty members are treated were highly predictive of satisfaction with instructional autonomy. The researchers found no significant difference in faculty satisfaction with instructional autonomy between full- and part-time faculty members. The degree of satisfaction with instructional autonomy and the factors that influence this satisfaction at community colleges

are more similar than distinct between faculty members who are employed full-time and those who are employed part-time.

Hence, regardless of the referent *Other*, if faculty members perceive equity, then they are more satisfied with facet or overall job satisfaction. Therefore, perceived equity should be considered in a study of faculty satisfaction. In addition to perception of equity, partial inclusion may contribute to faculty satisfaction. Those differences are explored in the next section.

Partial Inclusion

Part-time faculty members spend a fraction of the time that full-time faculty members spend in their teaching position and, generally, at the institution. Part-time faculty members typically do not advise students or participate in committee work (Gappa & Leslie, 1993; Levin, 2005) and the politics of the institution (Thorsteinson, 2003). Therefore, it can be assumed that part-time faculty members are only partially involved in the social system of the institution and are involved in their other social systems; such as home, family, or primary job; more. As such, part-timers are more sensitive to pressures to fulfill the role requirements of their other social systems and less sensitive to pressures to fulfill their role requirements at the two-year institution (Peters, Jackofsky & Salter, 1981). Hence, part-time faculty members may have a different *psychology of work* than their full-time counterparts, which may explain differences in attitudes toward faculty satisfaction between part- and full-time faculty members (Peters, Jackofsky & Salter).

Partial inclusion theory provides an explanation for this phenomenon. According to partial inclusion theory, individuals are members of multiple social systems and have multiple roles in their lives (Katz & Kahn, 1978; Thorsteinson, 2003). Therefore, individuals are involved in the functioning of each social system to which they belong on only a partial or segmented

basis. Although an organization may make demands on their employees for specific behaviors and attitudes, the organization cannot control all of the physical and psychological factors of each employee (Miller & Terborg, 1979).

Eberhardt and Shani (1984) looked to partial inclusion theory to explain the findings in their study. They found that part-time hospital workers reported higher levels of overall job satisfaction than their full-time counterparts. They suggest that since part-timers are not as involved in the organizational functioning of the institution, they may not possess enough information concerning organizational problems and politics to express negative attitudes (Eberhardt & Shani).

This may also be true for faculty members. Faculty members have many roles in their lives and the roles they perform at work are only a portion of their identity. This is especially true for part-time faculty members who are generally on campus for a shorter time than their full-time counterparts; therefore, they are less included in the institution's social system and are more included in their other social systems. The many non-institutional roles that part-timers have may limit the amount of time and psychological involvement that can be devoted to their teaching job or focal work role (Miller & Terborg, 1979).

Partial inclusion may explain why part-time faculty members at two-year institutions are much more satisfied with their workload than their full-time counterparts (Eagan, 2007). Although full-time faculty members cite the heavy teaching load and rigidity of work schedule as points of dissatisfaction (Cohen & Brawer, 2003; Murray & Cunningham, 2004), part-time faculty members teach fewer hours and have more schedule flexibility that enables them to either do other activities that they may enjoy more than teaching or enable them to fulfill their non-institutional roles.

Also, the number of non-institutional roles and the relative importance of those roles may influence the degree of inclusion in their part-time position and their job satisfaction. Nearly 72% of part-timers at two-year institutions indicate having at least one job outside of their part-time teaching position, typically in other professional fields; while only about 16% of full-time faculty report having more than one job (Eagan, 2007). Therefore, since part-time faculty members teach their courses then leave campus, they may be more satisfied with their teaching position than full-time faculty members whose positions are a greater portion of their lives and who are more influenced by the politics of the organization.

Therefore, considering the degree of inclusion of faculty members in their teaching positions may provide some insight into the differences in faculty satisfaction between part- and full-time faculty members. In addition to perception of equity and partial inclusion, demographic differences may influence faculty satisfaction.

Demographic Differences

Job satisfaction between part- and full-time faculty members may vary due to demographic differences; such as, gender, age and income. Thorsteinson (2003) suggests that women are more likely to work part-time than men and older individuals are more likely to be in part-time positions than individuals at other ages. However, Eagan (2007) indicates that in 2004 women and men have essentially equal representation in part-time faculty appointments at two-year institutions, 49.3 to 50.7% respectively. There is no indication of the composition of involuntary and voluntary part-time faculty. He further indicates that the average age of part-time faculty members is 49.2 years versus 49.8 years for full-time faculty.

Gender

Gender has been considered in many studies and its influence on job satisfaction is inconclusive. Lacy and Sheehan (1997) found that in the United States, as well as in the majority of the other thirteen countries involved in their international study of four-year institutions, male academics tended to be more satisfied than females with most aspects of their jobs. In her study of full-time faculty, Hagedorn (2000) did not find gender to be one of the highly predictive variables of overall faculty satisfaction; however, she did find that family related circumstances affect job satisfaction and married faculty members are more satisfied with their jobs than their single or divorced counterparts.

In their study of full-and part-time faculty at all institutional types, Toutkoushian and Bellas (2003) found that women are less satisfied than men with three types of job satisfaction—overall job satisfaction, satisfaction with benefits and satisfaction with salary. Also, women in part-time positions are less satisfied than part-time men with their benefits, yet more satisfied with their salaries.

In their study of female faculty at a community college, Wolf-Wendel, Ward, and Twombly (2007) found that despite a heavy teaching load of as many as five classes a semester and maintaining office hours, the female faculty members still had time to grade papers and prepare for classes without bringing work home. The full-time female faculty members with children were fairly content with teaching full-time at a community college. Many indicated that they did not want to be like their female counterparts at four-year universities who were burdened with research and long hours and did not have children or families. The respondents in the survey were fairly consistent in their belief that teaching at a community college is conducive to raising a family and that the hours required to complete their duties are predictable and

confined to regular hours. In their study, Toutkoushian and Bellas (2003) found that women with dependents have less overall job satisfaction than men with dependents and that married women are less satisfied than married men with their salaries. In a study of *partnered* couples who worked part-time in a variety of jobs and fields, Booth & van Ours (2008) found that women who worked 15 or fewer hours per week were most satisfied with their job.

The influence of gender in determining satisfaction differences between part- and full-time faculty appears to be inconclusive. However, the influence of gender does appear to be associated with other factors, such as marital status and existence of dependents.

Age

Age is another factor that may determine differences in job satisfaction between part- and full-time faculty members (Thorsteinson, 2003). Hagedorn (2000) did find that, on average, satisfaction for faculty at all institutional types increases with age. Cohen and Brawer (2003) indicate that older individuals, especially those entering the teaching profession after retiring from a career or making a mid-life career change, are more satisfied with their jobs at two-year institutions than are younger instructors. They contend that younger instructors may not have intended to commit their careers to teaching, yet find themselves performing the same tasks each year. According to Jacoby (2005), younger part-time faculty members are more likely to desire full-time tenure track employment than older part-timers, which could lead to dissatisfaction with their part-time positions.

Income

Another demographic difference that may influence faculty satisfaction is income. There is a substantial difference in institutional pay between part- and full-time faculty members. Part-timers are typically paid per course and are not compensated for time spent with students outside

of the classroom (Schmidt, 2008). Salary was considered in several satisfaction studies. Cohen and Brawer (2003) found that faculty members at two-year institutions are happier than their four-year counterparts with their salaries. Antony and Valadez (2002) found no significant difference between full- and part-time faculty with their satisfaction of demands and rewards, which includes pay. Toutkoushian and Bellas (2003) found that women are less satisfied with pay than men; however, women in part-time positions are more satisfied with their salaries than their male counterparts.

Salary's influence on faculty satisfaction is mixed. Jacoby (2005) did find that paid employment outside of the institution reduces the likelihood of a part-timer preferring a full-time teaching position. Therefore, the part-timer is possibly more satisfied with his or her part-time teaching position. I contend that total individual income is a better indicator of faculty satisfaction than is institutional salary. A study of *partnered* couples working part-time in a variety of jobs and fields, found that job satisfaction for men was positively correlated with household income, but negatively correlated for women (Booth & van Ours, 2008).

Hence, demographic differences, such as gender, age and total income may influence faculty satisfaction and affect part- and full-time faculty satisfaction differently. Another factor that may influence faculty satisfaction is academic discipline.

Academic Discipline

Each academic field often has its own culture and identity and such differences affect practices regarding the employment and treatment of part-time faculty (Frost & Jean, 2003). Academic disciplines differ according to availability of outside employment opportunities, number of part-timers utilized, and types of courses taught. Therefore, considering academic discipline is essential in a study of faculty satisfaction.

Academic discipline may determine the availability of employment opportunities outside the institution; thereby increasing the possible non-organizational roles for some part-time faculty members. Levin (2007) suggests that part-time faculty are of two types—those in the arts and humanities areas who do not have strong employment options outside of academe and those in the vocational and professional areas who have close ties with the private sector and have strong employment options outside of academe. Part-time faculty members with close ties to the private sector typically have professional careers and contacts outside of academe and have well-paying employment. Therefore, those part-timers are less likely than their arts and humanities counterparts to view themselves as financially exploited by academe and are less likely to depend on their college teaching career to provide them with professional satisfaction. Levin suggests that part-timers in the arts and humanities area do not possess skills that are highly valued outside of academe and; therefore, depend on academic careers for both their livelihoods and their professional identities.

Wagoner (2007) explored the income differences between full- and part-time faculty at community colleges. He concluded that part-time faculty members in the vocational and training areas (computing and technology, professions, and trades and services) earn significantly more in total income than their counterparts in the arts and sciences areas (arts and humanities, social and behavioral sciences, and physical and biological sciences). With an average total income of $47,144, part-timers in vocational and technical training earn 85% less than their full-time colleagues; however part-timers in arts and sciences earn an average total income of $37,556, which is 31% less than their full-time colleagues. On the average, community college full-time faculty members, regardless of academic discipline, earn 80% of their total income from their home institution. Part-timers in vocational and technical training earn only 30% of their total

income from academic sources, whereas part-timers in arts and sciences earn 55% of their total income from academic sources. Therefore, part-timers do differ across academic disciplines as far as outside employment opportunities and income is concerned.

Academic departments utilize part-time faculty to varying degrees and have them teach different types of courses. Social science departments may hire part-time faculty to fill in gaps in the course schedule, while English departments typically require large numbers of part-time faculty to teach first-year composition courses (Maynard & Joseph, 2008)**.** Typically, part-time faculty in the liberal arts area are not hired for their expertise, instead they are less expensive than full-time faculty and can teach large numbers of students. Expertise is not required since the students taking the courses will not advance to higher levels or enter the workplace in that academic area (Levin, 2007). By contrast, part-time faculty members in the occupational and professional program areas are either hired for their specialized knowledge or because of a labor shortage of full-time faculty; thereby providing needed expertise that is not readily available, albeit at a less expensive rate than a full-time faculty member (Levin). Depending on the academic discipline, part-time faculty members may be more or less likely to teach lower-level versus upper-level courses, or lab versus lecture courses.

Academic discipline was considered in several satisfaction studies. Olsen, Maple and Stage (1995) found that overall satisfaction with the academic department was a positive predictor of job satisfaction for women, as well as minority faculty. Neither Terpstra and Honoree (2004) nor Hagedorn (2000) found academic discipline to be a highly predictive variable of overall job satisfaction. Considering only one facet of job satisfaction, Terpstra and Honoree found that pay satisfaction varies significantly by discipline type. Academic faculty in

the disciplines of Law and Business were significantly more satisfied with their pay than faculty in other disciplines. Faculty members in the Sciences were the least satisfied with their pay.

Part-time faculty members have different experiences within an institution and dissimilar connections and employment opportunities outside an institution according to the academic discipline in which they belong. Therefore, it is imperative to include academic discipline as a factor when considering faculty satisfaction.

After considering the literature on job and faculty satisfaction, it can be concluded that faculty satisfaction may differ among groups of faculty and each group's satisfaction may be influenced by several factors. Those factors include perception of equity, partial inclusion, demographic differences and academic discipline. A conceptual framework follows which illustrates the model used in this study.

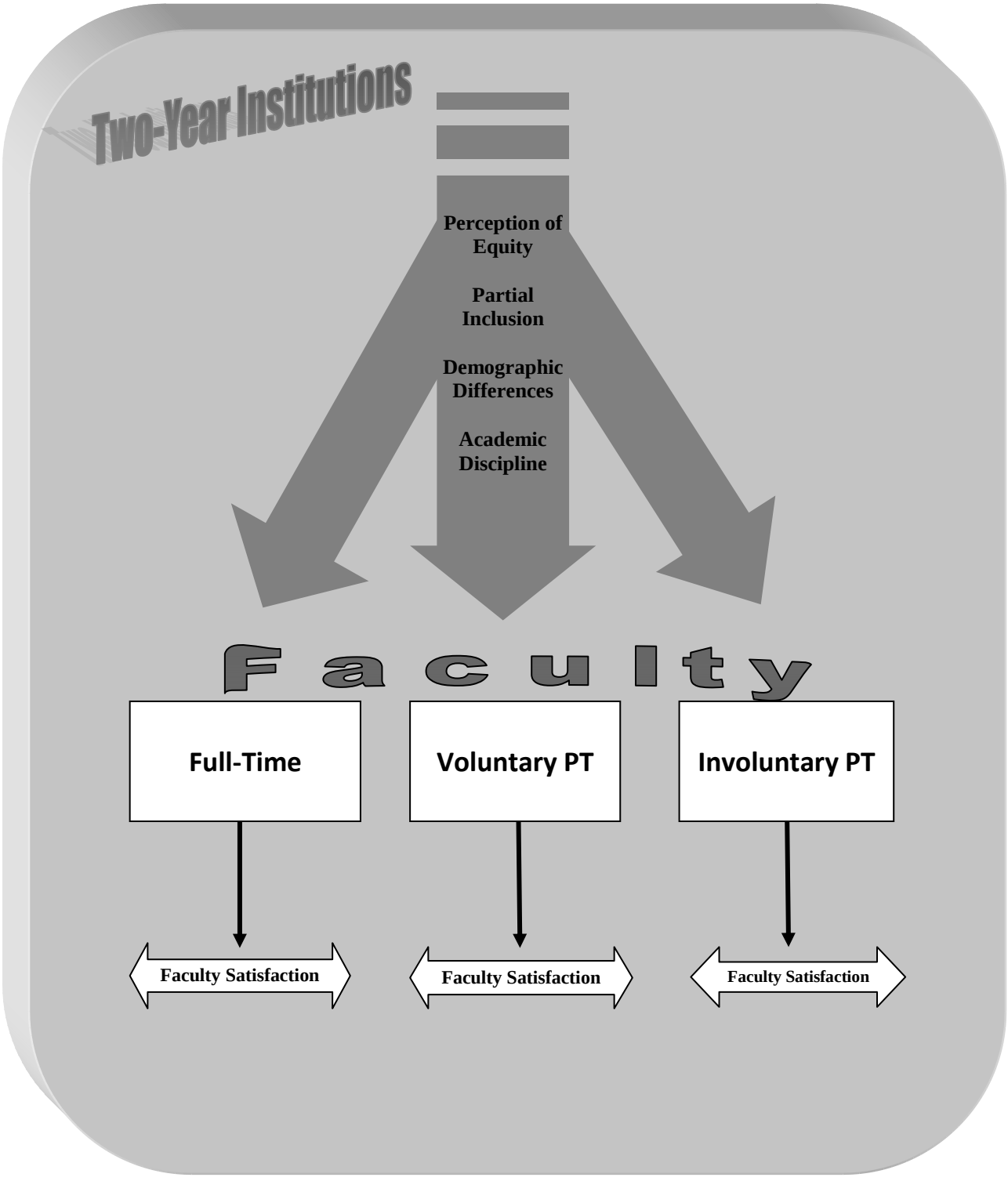
Conceptual Framework

The conceptual framework used in this study, see Figure 1.1, derives from the work of Antony and Valadez (2001), Maynard and Joseph (2008), Jacoby (2005), Thorsteinson (2003), and Miller and Terborg (1979). As did Maynard and Joseph (2008), I disaggregated part-time faculty members in this study into two groups according to employment preference. Full-time faculty members stayed in a separate group. The faculty members considered teach within the realm of two-year institutions. Starting at the bottom portion of the framework, faculty members are disaggregated into three groups—full-time; voluntary part-time; and involuntary part-time faculty. An arrow leads from each group to that group's faculty satisfaction.

Faculty satisfaction is the dependent variable and has a different structure for each faculty group. Therefore, faculty satisfaction is represented by three separate boxes, one for each subgroup of faculty. Faculty satisfaction is expected to be influenced by the independent

variables—perception of equity, partial inclusion, demographic differences and academic discipline, which were discussed in the previous sections.

Figure 1.1: Conceptual Framework



Contribution to the Literature

This study differs from previous faculty satisfaction studies in several ways. First, it controls for institutional type by studying faculty at only public two-year, associate degree granting institutions. Two-year institutions employ more part-time faculty and have a different mix of students than do four-year institutions. Therefore, this study contributes to the faculty satisfaction literature for two-year institutions.

Second, this study explores factors that influence faculty satisfaction for faculty grouped according to employment preference. In particular; it considers perception of equity, partial inclusion, several demographic differences and academic discipline. Although this study does not test for underemployment, person-job fit, equity theory or partial inclusion theory, it does explore these theoretical concepts and contributes to the literature of each. This study indicates that perception of equity has a significant positive influence on all facets of faculty satisfaction, which contributes to the literature on equity theory.

Third, this study disaggregates faculty into three groups—full-time, voluntary part-time, and involuntary part-time—in order to explore the structure of the faculty satisfaction for each group. Some studies consider only one facet of faculty satisfaction, such as satisfaction with instructional autonomy (Kim et al., 2008), while others consider a global measure of satisfaction (Hagedorn, 2000). By exploring the structure of each group's satisfaction, this study provides a more in depth look at faculty satisfaction.

Fourth, this study utilizes data from the 2004 National Study of Postsecondary Faculty (NSOPF: 04), which was released in Spring 2007 (National Study of Postsecondary, n.d.). Many of the previous faculty satisfaction studies either used earlier versions of the NSOPF (Antony &

Valadez, 2002; Hagedorn, 2000) or used data gathered from either a single institution (Maynard & Joseph, 2008) or a small number of institutions (Kim et al., 2008).

Fifth, this study also contributes to job satisfaction and organizational behavior literature. In the United States**,** part-time workers represent a significant portion of the workforce (*Chartbook of International*, 2009). Therefore, the job satisfaction of part-time employees is not only relevant to postsecondary institutions. Hence, identifying factors that influence part-time employee job satisfaction enhances the literature in the job satisfaction and organizational behavior fields.

Contribution to Leadership Studies

Community college leaders are in the position to make decisions and influence the policies that affect all aspects of community colleges. When faced with allocating scarce resources, they must do so in a manner that maximizes educational opportunities and services while maintaining the integrity of the institution's mission. Although the utilization of part-time faculty members has become the norm, leaders must be wary of utilizing part-time faculty who are simply available and not the best qualified. In order to retain well qualified part- and full-time faculty, leaders must be cognizant of factors that promote satisfaction and discourage dissatisfaction. This study provides community college leaders with information in regards to who their faculty members are, if they are satisfied with their teaching positions and some of the factors that influence their satisfaction. With this information, community college leaders can allocate resources to areas that will maximize faculty satisfaction and, in turn, possibly maximize teaching outcomes. Since full- and part-time faculty members have different needs, leaders can focus their resources in the areas that will produce the most benefit. Additionally, by understanding the factors that lead to faculty satisfaction, administrators and policy makers are

better able to create policies and implement practices that improve the environment in which faculty work.

Research on faculty at two-year institutions is sparse. Typically, research about the community college faculty appears as part of a general study of the U.S. professoriate (Schuster & Finkelstein, 2006). Twombly and Townsend (2008) contribute this lack of research on the fact that most research designed for publication is conducted by individuals at research universities as part of their quest for tenure, promotion, or merit pay. Those who write about postsecondary issues tend to focus on the world they know--the research university--and not on the community college. Therefore, further research on two-year faculty is needed.

CHAPTER 3: METHODOLOGY

As two-year postsecondary institutions utilize greater numbers of part-time faculty, the proportion of part-time faculty to full-time faculty is increasing and has now exceeded 50%. In order to best fulfill their mission, two-year institutions need to employ and retain qualified faculty. With limited resources, two-year institutions need to minimize their expenditures by retaining their qualified and experienced part-time faculty members. Therefore, they need to be cognizant of part-time faculty members' satisfaction. In order to best gauge part-time faculty satisfaction, a large sample whose respondents are geographically dispersed was used. The most efficient way to gather data on that population is through a national study. Therefore, I used a national study to explore part-time faculty satisfaction across the country, not just in one higher education system or one region. I answered the questions:

- Does the structure of faculty satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?
- Do the factors that influence satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?

Data Collection

The data used in this study comes from the restricted-use file of responses to the National Study of Postsecondary Faculty (NSPOF: 04). The NSOPF: 04 is the fourth in the National Study of Postsecondary Faculty series. The NSOPF has been widely used in faculty satisfaction research. Hagedorn (2000) and Antony and Valadez (2002) used NSOPF: 93 and Hardy and Laanan (2006) and Wagoner (2007) used NSOPF: 99 in their studies of faculty satisfaction and faculty characteristics and perspectives. Eagan (2007) used data from the 1988, 1993, 1999 and 2004 series in his longitudinal study of two-year faculty satisfaction. The NSOPF series provides

data in regard to faculty workload, income, demographics, satisfaction, and opinions. In addition, information about the institution where each faculty member is employed is available.

The NSOPF: 04, a component of the 2004 National Study of Faculty and Students (NSoFaS:04), was conducted during the 2003-04 academic year for the National Center for Education Statistics (NCES) of the United States Department of Education. The nationwide comprehensive study was based on a nationally representative sample of full- and part-time faculty employed at both public and private not-for-profit two- and four-year degree-granting, Title IV-participating institutions located in the 50 states and the District of Columbia, as reported by the 2002 Integrated Postsecondary Education Data System (IPEDS) (Heuer, Kuhr, Fahimi, Curtin, Hinsdale, Carley-Baxter, et al., 2006). The study explored the characteristics, opinions, workload, and career paths of faculty. In the study, faculty includes instructional staff and other individuals, such as administrators, who have faculty status, but may or may not perform instructional duties.

Sampling Design

A two-stage sampling methodology was employed for selection of eligible faculty and instructional staff. All eligible institutions constituted the first sampling stage, while all faculty and instructional staff comprised the second sampling stage (Cataldi, Fahimi, Bradburn & Zimbler, 2005). The institution sample was drawn based on a probability proportional to size (PPS) selection methodology (Heuer, et al., 2006). Eligible institutions were selected within 10 institutional strata—public doctoral, public master's, public baccalaureate, public associate, public other/unknown, private not-for profit doctoral, private not-for profit master's, private not-for profit baccalaureate, private not-for profit associate and private not-for profit other/unknown. The eligible institutions were asked to provide a list of all full- and part-employees with faculty

status, both instructional and non-instructional, and all other employees with instructional responsibilities, regardless of faculty status who were employed at the institution during the Fall 2003 semester.

Samples of faculty members were selected within sampled institutions using a stratified systematic sampling where the six strata were defined in the hierarchical order of Hispanic, non-Hispanic Black, Asian and Pacific Islander, full-time female, full-time male and all other. The determined sample size was 35,630 faculty and instructional staff, of which 34,330 individuals were eligible. Eligible faculty included those individuals who were permanent, temporary, adjunct, visiting, or postdoctoral appointees; were employed full- or part-time; taught credit or noncredit courses; were tenured or nontenured; provided instruction, advised, or served on thesis or dissertation committees; or were on paid sabbatical leave. Ineligible faculty included graduate and undergraduate teaching assistants and individuals who had instructional duties outside the United States, or were on leave without pay, or were paid by a company or organization other than the institution, or were unpaid volunteers. A total of 26,110 faculty and instructional staff completed the survey, providing a 76% response rate (Heuer, et al., 2006). Of those respondents, 76% completed the web self-administered questionnaire. The remaining 24% were called and administered a computer-assisted telephone interview (CATI). Further technical information about the NSOPF:04 sample, response rate, measurement and sampling error can be found in Heuer, et al. (2006). The strategies used to correct for oversampling in this study are discussed in the *Weighting* section later in this chapter.

Limitations

There is the possibility that part-time faculty members are underrepresented. Not all part-time faculty members appear on rosters or are listed in faculty directories (Jacoby, 2005). Also,

not all part-time faculty members are coded properly in the institutions' databases. For the NSOPF: 04, faculty lists were provided by the participating institutions. Instructors coded incorrectly would not have been included. Reimbursement for time and staff was offered to institutions as an incentive to provide their faculty lists within schedule constraints. For those institutions that did not send their information, faculty lists were abstracted from course catalogs, faculty directories and other publicly available sources (Heuer et al., 2006). Therefore, there is the possibility part-time faculty are underrepresented or misrepresented.

Work status congruence may not be completely realistic. Although an individual reported a preference for full-time employment does not mean that individual will apply for a full-time position when it becomes available. Possibly an involuntary part-timer may have obligations that would not allow them to actually work full-time or accept a full-time position if offered. Likewise, just because an individual reported a preference for part-time employment does not mean that that individual will not seek a full-time position if it becomes available. Also, although it is possible that there are full-time faculty members who would prefer part-time employment, it is assumed in this study that all full-time faculty members prefer full-time employment. It is typically easier to change from full-time to part-time than vice versa. This study did not explore these issues.

The NSOPF: 04 had fewer questions than previous studies in the series, making it more difficult to extract data that was used in other studies, such as faculty opinions of administration and student quality (Hagedorn, 2000). In addition the 15 satisfaction items considered by Antony and Valadez (2002) have been reduced to only eight satisfaction items. This limits comparisons with previous studies.

As are all surveys, this survey captured the responses of the participants at a certain point in time. Job satisfaction is dynamic and can decline or increase quickly (Newstrom, 2007). Short-term events could have occurred in a respondent's life prior to their completing the survey that could have contributed to a short-term increase in either job satisfaction or job dissatisfaction (Herzberg, Mausner & Snyderman, 1993). These short-term attitudes influenced their survey response and did not reflect long-term feelings of job satisfaction or dissatisfaction. Although these responses could bias the results, it can be assumed an equal number of respondents were experiencing short-term job satisfaction as were experiencing short-term job dissatisfaction, netting out any negative effects.

Oversampling due to a multistage cluster sampling may produce homogeneity within the clusters. In an effort to correct the effects of oversampling, I chose to adjust the relative weight to alter the effective sample size. After finding the relative weight, I adjusted the relative weight downward as a function of a known design effect (DEFF) value that was provided by Heuer et al (2006) in the NSOPF: 04 methodology report. Thomas, Heck, and Bauer (2005) suggest that estimating the DEFF using special software, such as SUDAAN, WesVar, or PCCARP, is more accurate; however, they found that adjusting the relative weight downward as a function of the overall design effect (DEFF) value found in the methodology report of a national study yields similar results in most instances. Accordingly, it is important for the reader to be aware of such potential deviations.

Respondents

The NSOPF: 04 restricted dataset includes responses from 26,110 faculty members at all higher education institution types. However, this study is limited to faculty at public two-year associate degree granting institutions. Therefore, the responses for faculty working in those

institutions were isolated and separated into a new data file. The 2000 Carnegie Classification was used in the NSOPF: 04 (Heuer et. al., 2006); therefore, I filtered the file for this study using the 2000 Carnegie Classification for public two-year institutions who grant associate degrees as their highest degree. The institutions within this category vary widely and include junior colleges, community colleges and technical colleges (*The Carnegie Classification*, 2001).

The sample size for public two-year institutions with associate degree as highest degree granted is 6,408 respondents. I filtered the sample further to exclude the responses from faculty with no faculty status, those without instructional duties, those whose primary duties were research, administrative or anything other than instructional, and those who only teach noncredit courses (Valadez & Antony, 2001). Since faculty members are diverse in their duties and employment type, I am better able to control for diversity of duties by excluding those faculty members without faculty status, those who only teach noncredit courses, and those who do not have instructional duties. The final sample includes only faculty members who have faculty status, have instructional duties, listed teaching as their primary duty, and teach credit courses, although they may also teach some noncredit courses. The final sample for this study is composed of 4,822 participants, of which 51.6% are full-time faculty and 48.4% are part-time.

Groups

The sample was split into three faculty groups—full-time, voluntary part-time, and involuntary part-time. The sample was first be disaggregated into full- and part-time faculty based on responses to question *Q5, Employed full or part-time at this institution*. The part-time group was further disaggregated into voluntary and involuntary part-time based on responses to *Q8, Would you have preferred a full-time position for the 2003 Fall Term at the institution?* It is assumed that all full-time faculty members prefer full-time employment.

Variables

Dependent Variables

Eight questions in the questionnaire measured satisfaction. They were: Satisfaction with authority to make decisions, Satisfaction with technology-based activities, Satisfaction with equipment/facilities, Satisfaction with institutional support for teaching improvement, Satisfaction with workload, Satisfaction with job overall, Satisfaction with salary, and Satisfaction with benefits. Hagedorn (2000) used only one measure of satisfaction, the global measure of Satisfaction with job overall. Antony and Valadez (2002) used four items to measure satisfaction in order to get a comprehensive look at faculty satisfaction. In order to keep four, they reduced the 15 satisfaction items provided in the NSOPF: 93 using principal components factor analysis. The NSOPF: 04 has only 8 satisfaction items, which is fewer than the 15 satisfaction items that were in the NSOPF: 93. I isolated Satisfaction with job overall and used principal axis factoring to see if I could reduce the remaining seven questions into fewer measures of satisfaction.

Independent Variables

Perception of Equity

Perception of equity, which is based on equity theory, may provide insight into understanding how individuals believe they are treated at work (Denhardt, Denhardt & Aristigueta, 2009). According to Adams (1963), equity theory postulates that an individual compares the ratio of his or her perceived job outcomes to inputs to that of an *Other*. Therefore, equity theory acknowledges that satisfaction does not only depend on an individual's own beliefs and circumstances, but also on what happens to other people (Colquitt, LePine, & Wesson, 2009).

The NSOPF: 04 has four opinion questions relating to faculty members' views on equitable treatment. I used two of those opinion questions to determine if faculty members perceive themselves as being treated fairly. For question Q82a, respondents were asked if they strongly agree, somewhat agree, somewhat disagree, or strongly disagree that at their institution teaching is rewarded. For question Q82b, respondents were asked if they strongly agree, somewhat agree, somewhat disagree, or strongly disagree that at their institution part-time faculty are treated fairly (National Center for Education Statistics, 2006). The question on teaching being rewarded was chosen because it pertains to all faculty members, both full- and part-time, and provides the views of faculty in regards to their teaching efforts being properly appreciated through rewards. The questions on part-time being treated fairly was chosen because; according to equity theory, satisfaction does not only depend on an individual's own beliefs and circumstances, but also on what happens to other people (Colquitt, LePine, & Wesson, 2009). Therefore, views of how segments of faculty are treated could influence the satisfaction of all faculty members.

These two questions are presented in the survey with a 4-point Likert response scale ranging from 1 (strongly agree) to 4 (strongly disagree). I reversed the scoring to make interpretation easier (Fiona & Sheehan, 1997). Consequently, a high mean scale score indicates strongly agree, while a low score indicates strongly disagree.

Partial Inclusion

Partial inclusion is typically used to explain the differences between part- and full-time workers' satisfaction (Miller & Terborg, 1979; Thorsteinson, 2003). However, no measurements in the literature are provided. I considered partial inclusion using two variables—inclusion at institution and employment elsewhere. Inclusion at institution was measured by the total number

of hours a faculty member spends on paid and unpaid tasks at the institution. Faculty members have many roles outside of the two-year institution; however, the more time a faculty member spends on paid and unpaid tasks at the institution, the more involved that person is with their teaching position. Inclusion at institution has interval values derived by adding the responses from Q31a, *Hours per week on paid tasks at institution* and Q31b, *Hours per week on unpaid tasks at institution* (Heuer et al., 2006). Respondents were asked "on average, how many hours did you spend at each of the following work activities during the 2003 Fall Term?" The first activity, Q31a, is "All paid activities at [FILL INSTNAME] (e.g., teaching, clinical service, class preparation, research, administration)" (National Center for Education Statistics, 2006). The second activity, Q31b, is "All unpaid activities at [FILL INSTNAME] (e.g., club assistance, recruiting, attending institution events)". Respondents were to enter the average number of hours and were directed to give their best estimates. If none, they were to enter "0," and if less than one hour, they were to enter "1."

Employment elsewhere is the second measurement for partial inclusion. The more jobs a faculty member has, the less involved, or included, that individual is at the two-year institution (Peters, Jackofsky, & Salter, 1981). Nearly 72% of part-timers at two-year institutions indicate having at least one job outside of their part-time teaching position, typically in other professional fields, while approximately 16% of full-time faculty report having more than one job (Eagan, 2007). Employment elsewhere has interval values which are determined by the responses to Q18, *Other current jobs, number of jobs* (Heuer et al., 2006). Question Q18 was administered to all faculty and instructional staff and read "While you were employed at [FILL INSTNAME], how many other jobs did you hold during the 2003 Fall Term?" Respondents were directed to not consider any outside consulting jobs and to select "0" if they had no other jobs.

Demographic Differences

Job satisfaction between part- and full-time faculty members may vary due to demographic differences. Gender, age and total income were used to measure demographic differences. The variable for gender is entitled *Male*. *Male* has a dichotomous value, either male or not male, and was determined using responses to Q71, *Gender*. Respondents were asked "Are you . . ." and were to choose 1 for male or 2 for female (National Center for Education Statistics, 2006).

Age, which has an interval value, was derived using the responses to Q72, *Age, year of birth*. Respondents were to enter their year of birth when asked "In what year were you born?" (National Center for Education Statistics, 2006). The responses were subtracted from 2003 to determine the age of the individual when the study was conducted—Fall 2003.

Total income is represented as an interval value, derived from the responses to several questions and transformed to a natural logarithm. Converting to the natural log results in data that is close to symmetric and normal, thereby fitting the underlying assumptions of regression analysis (Nettleton, n.d.). Respondents were asked to estimate their gross compensation before taxes, not including non-monetary compensation. They were to enter a dollar amount, giving a best estimate if not sure of the amount or entering "0" if the question were not applicable. Question Q66a read, "What is your basic salary during the calendar year from this institution?" (National Center for Education Statistics, 2006). Question Q66b was, "How much compensation did you receive from other income from this institution not included in basic salary (e.g., for summer session, overload courses, administration, research, coaching sports, etc.)?" Question Q66c read, "How much were you paid for employment at another postsecondary institution?" Question Q66d read, "How much were you paid for outside consulting or freelance work?"

Question Q66e, "How much were you compensated for any other employment besides consulting and another postsecondary institution (e.g., speaking fees and honoraria, self-owned business, legal/medical/psychological services, professional performances/exhibitions)?" Question Q66f, "How much income did you receive from any other source (e.g., investment income, royalties/commissions, pensions, real estate, loans, alimony, or child support)?" The responses to Q66a, *Amount of income from basic salary from institution*; Q66b, *Amount of income from other income from institution*; Q66c, *Amount of income from other academic institution*; Q66d, *Amount of income from consulting or freelance work*; Q66e, *Amount of income from other employment*; and Q66f, *Amount of income from other unspecified source,* were added together to form the value for the derived variable entitled Q66SUM. Those respondents who did not complete Q66a through Q66f were presented with Q66b2, *Amount of total individual income*, which is a categorical item. The stem wording for Q66b2 was, "The following ranges may make it easier for you to estimate your total income from all sources for the 2003 calendar year." The following eight ranges were presented to the respondent: 1 = $1 – 24,999, 2 = $25,000 – 49,999, 3 = $50,000 – 74,999, 4 = $75,000 – 99,999, 5 = $100,000 - $149,000, 6 = $150,000 – 199,999, 7 = $200,000 - $300,000, and 8 = more than $300,000 (Heurer, 2006). If participants responded to Q66b2, that response was used for the respondent's income instead of the amount for Q66SUM. The midpoint of the categorical items was used instead of the categories, enabling me to have a continuous variable instead of a categorical one. Income was then transformed to the natural logarithm in a new variable.

Academic Discipline

Academic discipline has a dichotomous value. The academic disciplines were divided into two categories—vocationally oriented cluster (VOC) and liberal arts-oriented cluster

(LAC)—as proposed by Benjamin (1998). These categories are similar to the ones used by Wagoner (2007)—traditional arts and sciences and vocational and technical training. The VOC category includes first-professional health, nursing, occupational programs, law, business, engineering, physical sciences, and teacher education (Benjamin). The LAC cluster includes history, English and literature, foreign languages, fine arts, sociology, philosophy and religion, biological sciences, and political sciences. I reviewed and compared the responses to three questions—*Q16VS, What is your principal field or discipline of teaching*?; *Q16CD2, Please help us categorize teaching field using the drop-down list box – general code*; and *Q16CD4, Please help us categorize teaching field using the drop-down list box – specific code* —all of which address principal field of teaching (National Center for Education Statistics, 2006). I then created a dummy variable for the two categories and recoded the various fields of teaching into the two categories – 0 = VOC and 1 = not VOC, or LAC.

Analyses

Data was extracted from the NSOPF: 04 Codebook and recoded for missing values. The eight questions in the questionnaire used to measure satisfaction—Satisfaction with authority to make decisions, Satisfaction with technology-based activities, Satisfaction with equipment/facilities, Satisfaction with institutional support for teaching improvement, Satisfaction with workload, Satisfaction with job overall, Satisfaction with salary, and Satisfaction with benefits—are presented in the survey with a 4-point Likert response scale ranging from 1 (very satisfied) to 4 (very dissatisfied). I reversed the scoring to make interpretation easier (Fiona & Sheehan, 1997). Consequently, a high mean scale score indicates high satisfaction, while a low score indicates low satisfaction. Analyses were performed using

PASW software. Frequency distribution analyses were performed to gather demographic and work related characteristics for each group of participants.

Preparation of Data

The data used in this study comes from the restricted-use file of responses to the National Study of Postsecondary Faculty (NSPOF: 04). The NSOPF: 04, a component of the 2004 National Study of Faculty and Students (NSoFaS:04), was conducted during the 2003-04 academic year for the National Center for Education Statistics (NCES) of the United States Department of Education. The nationwide comprehensive study was based on a nationally representative sample of full- and part-time faculty employed at both public and private not-for-profit two- and four-year degree granting institutions in the 50 states and the District of Columbia (Heuer, Kuhr, Fahimi, Curtin, Hinsdale, Carley-Baxter, et al., 2006). The study explored the characteristics, opinions, workload, and career paths of faculty. In the study, faculty includes instructional staff and other individuals, such as administrators, who have faculty status, but may or may not perform instructional duties.

Before data from the NSOPF: 04 could be used in this study, steps had to be taken to prepare the data. Missing values were replaced and some variables were recoded. The data was then separated into three groups—full-time, involuntary part-time, and voluntary part-time. Outliers were identified and corrected before checking for normality. The NSOPF: 04 used complex sampling, which included stratification, multiple stages of selection, and unequal probability selection of respondents, making the unweighted sample unrepresentative of the population (Heuer, 2006). Since I used weighted data for the descriptive and regression analyses in this study, weights and design effect were calculated.

Once the data were ready, principal axis factor analyses were used to find patterns in the correlations among the satisfaction variables (Vogt, 2006). Multicollinearity among independent variables was then checked before finally performing multiple regression analyses for each satisfaction variable for each faculty group.

Missing Values

Missing data were imputed in several steps. First, according to Heurer (2006), missing values of gender, race, and ethnicity were filled using cold-deck imputation based on the sampling frame information or institution record data. Since these three demographic variables were used as key predictors for all other variables, they were imputed first. After completion of all logical and cold-deck imputation procedures, the remaining variables were imputed using the weighted sequential hot-deck method. Once all variables were imputed, consistency checks were applied to the entire faculty data file to ensure that the imputed values did not conflict with the other questionnaire items, observed or imputed. Further information on the imputation of the missing values can be found in the methodology report (Heuer).

Descriptives for each variable used in this study were reviewed to determine if they had any system-missing values. Values below zero, such as -3 or -9, indicate legitimate skips or missing data. These values need to be recoded so that computations in PASW analyses could handle the missing data correctly ("SPSS learning module", n.d.). Using SPSS application software, I set the values for the legitimate skips and missing values to *sysmis* (Morgan et al., 2005).

Recode

Several variables were recoded to ensure proper analyses. Table 3.1 shows a description of each of the variables that were recoded, giving the original variable label along with the new

variable label that was created with recoding. The original satisfaction variables—*Q61a, Satisfaction with authority to make decision*; *Q61b, Satisfaction with technology*; *Q61c, Satisfaction with equipment and facilities*; *Q61d, Satisfaction with institutional support*; *Q62a, satisfaction workload*; *Q62b, Satisfaction with salary*; *Q62c, Satisfaction with benefits*; and *Q62d, Satisfaction with Job Overall*—were coded so that 1 = Very satisfied, 2 = Somewhat satisfied, 3 = Somewhat Dissatisfied, and 4 = Very dissatisfied. I wanted the greater number to mean more satisfied and the lower to mean dissatisfied. Therefore I recoded the satisfaction variables into new variables so that 4 = Very satisfied, 3 = Somewhat satisfied, 2 = Somewhat dissatisfied, and 1 = Very dissatisfied. The new variable names are *SATAuth, Satisfaction with authority to make decisions*; *SATTech, Satisfaction with technology*; *SATEquip, Satisfaction with equipment and facilities*; *SATInSup, Satisfaction with institutional support*; *SATWorkL, satisfaction workload*; *SATSalar, Satisfaction with salary*; *SATBenef, Satisfaction with benefits*; and *SATJobOv, Satisfaction with Job Overall*

I also recoded the opinion variables. Question *Q82A, Opinion: teaching is rewarded,* and *Q82B, Opinion: part-time faculty treated fairly*, were used in this study. The opinion variables were coded so that 1 = Strongly agree , 2 = Somewhat agree , 3 = Somewhat disagree , and 4 = Strongly disagree. Since I want the greater number to indicate agreement with the statement and the lower number to indicate disagreement, I recoded the data into different variables where 4 = Strongly agree , 3 = Somewhat agree , 2 = Somewhat disagree , and 1 = Strongly disagree. The new variable for *Opinion: teaching is rewarded,* is *OPTeacRe,* while the new variable for *Opinion: part-time faculty are treated fairly* is *OPPTFair*.

The number of other current jobs and the total hours, paid and unpaid, spent on tasks are the variables I chose to measure partial inclusion. Question *Q18, Other current jobs* and *Q31a,*

Hours spent on tasks are the independent variables I chose to measure partial inclusion. I did not change the label of variable *Q18, Other current jobs;* however, I refer to that variable as *OthJobs*

Table 3. 1

Recoded Variables – Original label and new label

Variable Description	Original Variable Name	New Variable Name
Satisfaction Variables		
Satisfaction with Authority to Make Decisions	Q61A	SATAUTH
Satisfaction with Technology-based Activities	Q61B	SATTECH
Satisfaction with Equipment/Facilities	Q61C	SATEQUIP
Satisfaction with Institutional Support for Teaching Improvement	Q61D	SATInSup
Satisfaction with Workload	Q62A	SATWORKL
Satisfaction with Salary	Q62B	SATSALAR
Satisfaction with Benefits	Q62C	SATBENEF
Satisfaction with Job Overall	Q62D	SATJobOv
Opinion Variables		
Opinion: Teaching is rewarded	Q82A	OPTeacRe
Opinion: Part-time faculty treated fairly	Q82B	OPPTFair
Partial Inclusion		
Other Current Jobs	Q18	OthJobs
Hours on Tasks (two added together)		
Hrs per week on paid tasks at institution	Q31a	
Hrs per week on unpaid tasks at institution	Q31b	HrsTasks
Demographic Differences		
Gender	Q71	Male
Age		
Age, year of birth	Q72	Age
Income		
Total income	Q66SUM	IncomeLN
Academic Discipline		
Principal field of teaching, general code	Q16CD2	VOC

in this paper. I recoded the variable that measures total hours spent on tasks. The responses to two questions—Q31a, *Hours per week on paid tasks at institution* and Q31b, *Hours per week on unpaid tasks at institution*—were added together to create the variable *HrsTasks*.

Three variables measured demographic differences: gender, age, and total income. I used responses from the question *Q18* to measure gender and I refer to that variable as *Male* in this paper. The data does not have a variable for age. Therefore, I created a variable for age using the responses to question *Q72, Age, year of birth*. Since the study was conducted in the Fall 2003 semester, the values for the new variable, *Age*, were calculated by subtracting the value in *Q72*, the participant's year of birth, from 2003 to determine the age of the participant.

The values for total income were computed using data for the derived variable *Q66SUM, amount of total individual income*. Those values were transformed to the natural logarithm of total individual income in a new variable, *IncomeLN*. Converting total income to the natural log results in data that is close to symmetric and normal, thereby fitting the underlying assumptions of regression analysis (Nettleton, n.d.).

The final recode was for academic discipline. The academic discipline variable has a dichotomous value: 0 = vocationally oriented cluster (VOC); 1 = not VOC, or liberal arts-oriented cluster (LAC). The VOC category includes first-professional health, nursing, occupational programs, law, business, engineering, physical sciences, and teacher education (Benjamin, 1998). The LAC cluster includes history, English and literature, foreign languages, fine arts, sociology, philosophy and religion, biological sciences, and political sciences (Benjamin). These categories are similar to the ones used by Wagoner (2007)—traditional arts and sciences and vocational and technical training. I reviewed and compared the responses to the questions *Q16VS, Principal field of teaching verbatim, Q16CD2, Principal field of teaching,*

general code and *Q16CD4, Principal field of teaching, specific code*. The data in *Q16CD2* were consistent with the data in the other two variables; therefore, I used the values in *Q16CD2* to categorize and code the various fields of teaching into the two categories for the new variable, *ACADISPL*. Table 3.2 contains the data on the various categories. One category was labeled

Table 3. 2

Academic Discipline Categories

	VOC (0)			LAC (1)	
Code	**First-Professional Health, Nursing, Occupational programs, Law, Business, Engineering, Physical Sciences, Teacher Education (Benjamin, 1998)**	**No. in Cat**	**Code**	**History, English and literature, foreign languages, fine arts, sociology, philosophy and religion, biological sciences, Political sciences**	**No. in Cat.**
1	Agriculture/Natural Resources	34	3	Area/ethnic/cultural/gender studies	9
2	Architecture and related services	19	4	Arts-visual and performing	316
6	Business/management/marketing	322	5	Biological and biomedical sciences	231
8	Computer/Info sciences/Support Tech	371	7	Communication/journalism/ Comm. Tech	128
9	Construction Trades	63	12	English language and literature/letter	506
10	Education	295	14	Foreign languages/literature/linguistics	148
11	Engineering technologies/technician	149	17	Library science	2
13	Family/consumer sciences, human sciences	28	20	Multi/interdisciplinary studies	19
15	Health professions/Clinical Sciences	451	24	Philosophy, Religion and Theology	58
16	Legal professions and studies	49	26	Psychology	173
18	Mathematics and Statistics	427	30	Social Sciences and History	400
19	Mechanical/repair technologies/techs	83			
21	Parks/Recreation/Leisure/Fitness Studies	118			
22	Precision Production	24			
23	Personal and culinary services	45			
25	Physical Sciences	158			
27	Public Administration/Social Services	28			
28	Science Technologies/Technicians	15			
29	Security and Protective Services	110			
31	Transportation and Materials Movin	15			
32	Other	28			
	TOTALS	2,832		TOTALS	1,990

Other and had 32 responses. After matching those responses with the corresponding responses to *Q16VS* and *Q16CD4,* I determined that over 50 percent of the 32 responses were in vocation related fields; therefore, I coded all responses in the *Other* category as VOC.

The values for the satisfaction and opinion variables were reversed. New variables were created and the values calculated for age, hours spent on tasks, income and academic discipline. Once recoding was complete, I separated the sample into groups.

Sample

The NSOPF: 04 data set includes the responses from 26,108 faculty members from all types of higher education institutions—four- and two-year, public and private. Since this study is only concerned with faculty members at public, two-year institutions who have faculty status and teach courses for credit, the data for faculty members meeting those criteria were disaggregated into a separate sample. The new sample was created using several steps. First, the sample was split on question *Q110Q0, 2000 Carnegie Code (10 category) by control.* Only those participants with code 17, indicating they taught at a public associate degree granting institution were selected. That split created a sample of 6,408 participants. Second, the sample was further split using question *Q1, Instructional Duties, any*. Only those participants with the code 1, indicating they have instructional duties, were selected, thus creating a sample of 6,346 participants. Third, the sample was split on question *Q2, Instructional duties related to credit courses*. Those participants with code 1, indicating participation in some credit instruction, were chosen, resulting in a sample of 5,759 participants. Fourth, the sample was split on question *Q3, Faculty Status*. Those participants with the code 1, indicating they have faculty status, were selected, leaving a sample of 5,303. Lastly, the sample was split on question *Q4, Principal Activity*. Those

participants with code 1, indicating their principal activity was teaching, were chosen, leaving a sample of 4,822 participants. Therefore, the sample used for this study has 4,822 participants.

I then split the sample into three groups—full-time, voluntary part-time, and involuntary part-time faculty—to allow for analyses of differences of satisfaction among the groups. The sample was first split on question *Q5, Employed full or part-time at this institution*. Those participants with code 1, indicating they were employed full-time, went into one group. The full-time group has 2,333 participants. A second group was created with the participants with code 2, indicating they were employed part-time. The part-time group, with total participants of 2,489, was further split into two groups—voluntary and involuntary part-time. Using question *Q8, Part-time but preferred full-time position*, those participants with code 0, indicating that a full-time position was not preferred, were put in the voluntary part-time group, while those participants with code 1, indicating a full-time position was preferred, were put in the involuntary part-time group. The involuntary part-time group has 1,140 participants; while the voluntary part-time group has 1,349 participants.

With the sample split into three separate groups, I then checked the data in each group for outliers. Outliers can distort the results of a statistical test. Additionally, they can affect the values of correlation coefficients (Mertler & Vannatta, 2005).

Outliers

Outliers are cases with values located far from the rest of the distribution at one or both ends of the sample distribution (Mertler & Vannatta, 2005). A single, extreme outlier can cause the results of a statistical test to be significant when, without the outlier, it would have been insignificant. The opposite is also a possibility. Therefore, it is imperative that the results of the statistical analyses represent the majority of the data and not be largely influenced by one, or a

few, extreme observations (Mertler & Vannatta). For small data sets, detection of univariate outliers can be accomplished by a visual inspection of the data. However, NSOPF: 04 is a large data set that requires statistical and graphical methods to detect outliers. First, I standardized all raw scores for the dependent and independent variables in the distribution by transforming the data for the variables to z-scores. I did this for dependent and independent variables that did not have dichotomous values. Using dichotomous variables would have been an inappropriate application of a statistic (Schwab, 2006). According to Tabachnick & Fidell (2007) standardized scores in excess of 3.29 ($p < .001$, two-tailed test) are potential outliers.

I examined the cases with extreme values and determined that data was not inaccurately entered into the data file (Tabachnick & Fidell, 2007). Also, I did not find that one variable was responsible for most of the outliers; therefore, no cases were deleted. I changed the values for variables deemed to be outliers to one unit larger or smaller than the next most extreme value in the distribution (Tabachnick & Fidell). Once I changed those values deemed to be outliers according to z scores, I rechecked for outliers using box plots, which is a graphical method for finding univariate outliers. According to box plot results, some variables still had outliers. Again, I changed the values for variables deemed to be outliers to one unit larger or smaller than the next most extreme value in the distribution until the box plots indicated there were no more outliers. All changes to the variables are recorded in an Excel file.

After changing the outliers; the independent variable, *OthJobs, Number of other jobs,* became a dichotomous variable for the full-time and involuntary part-time faculty groups. Only 190 out of 1,240, or 15.3 percent, of full-time faculty indicated they had a job outside of their teaching job. Therefore, the values for this variable are now 0 = *no job* and 1 = *has a job outside of their teaching job* for full-time and involuntary part-time faculty. For a dichotomous variable

to be normal it must have over a 90 – 10 split, which this variable does have (Morgan, Leech, Gloeckner, & Barrett, 2004). This variable has more than two values for the voluntary part-time group.

Outliers can exist in both univariate and multivariate situations. Univariate outliers are cases with extreme values on one variable, while multivariate outliers are cases with unusual combinations of scores on two or more variables (Mertler & Vannatta, 2005, pg. 27). Therefore, after I determined that there were no univariate outliers, I looked for multivariate outliers. Using Mahalanobis D^2, I determined that there were no multivariate outliers in the three groups.

Normality

Most common inferential statistics, such as, multiple regression, assume that the dependent variables are normally distributed. Therefore, it is imperative to examine the dependent variables in this study for normality. Skewness and kurtosis are two tests used to determine normality. A Pearson's score of zero for skewness indicates a normal distribution, while a score > +1 or < -1 indicates that the distribution is markedly skewed (Morgan, Leech, Gloeckner, & Barret, 2004). A Pearson's score equal to three for kurtosis signifies a normal distribution; however, Leech, Barrett, and Morgan (2005) indicate that kurtosis does not affect the results of most statistical analyses very much.

Skewness and kurtosis were calculated for each of the three groups for each of the satisfaction variables before Principal Axis Factoring was performed. In the full-time and involuntary part-time groups, the skewness for each satisfaction variable is not > +1.0 or < -1.0; therefore, the variables are normally distributed. In the voluntary part-time group, skewness for SATWorkL is -1.217 and SATJobOv is -1.05; skewness values for the other satisfaction variables are within the acceptable range. According to Tabachnick & Fidell (2007), a variable

with statistically significant skewness in a large sample often does not deviate enough from normality to make a substantive difference in the analysis. "The Central Limit Theorem reassures us that, with sufficiently large sample sizes, sampling distributions of means are normally distributed regardless of the distributions of variables" (Tabachnick & Fidell, 2007, pg. 78). This holds true as long as there are no outliers. The three groups used in this study are part of a large sample and they no longer have outliers; therefore I assumed that the skewness found would not make a substantive difference in my analyses.

Weighting

I used weighted data for the descriptive and regression analyses, because the unweighted sample is not representative of the population (Heuer, 2006). NSOPF: 04 use stratified multistage cluster sampling strategies, which are effective in obtaining the right numbers of the right types of observations in a sample; however, they also yield a sample that, in its raw form, is typically a distortion of the population from which it is drawn (Thomas & Heck, 2001). Any estimates based on the raw unweighted sample would be biased in the favor of the faculty who were oversampled within particular strata. Therefore corrective strategies were employed to correct for oversampling. To make these data representative of the target population, Thomas and Heck recommend applying sample weights to deemphasize the disproportionate contribution of those elements that were oversampled.

The faculty analysis weight variable included in the NSOPF: 04 dataset were used to weight the responses. The weight adjustment factors were calculated using Generalized Exponential Modeling (GEM) (Heuer, et al., 2006). GEM provides a comprehensive weighting program that utilizes a large number of predictor variables for creating a more balanced set of weights while automatically curtailing extreme weights that can reduce the efficiency of

weighted estimates. According to Heuer, et al., the faculty analysis weights were computed as the product of nine weight components and adjustment factors. The institution sampling weight (WT1) adjusts for the sampling method—probability proportional to size. The institution multiplicity adjustment factor (WT2) was calculated to correct for institutions that had two or more records listed in IPEDS and; therefore, had more than one chance to be selected. The institution nonresponse adjustment (WT3) reduces or eliminates nonresponse bias in the survey estimates, while the institution poststratification adjustment factor (WT4) adjusts for stratification. The faculty sampling weight (WT5) adjusts for the selection probability for faculty. The faculty multiplicity adjustment factor (WT6) adjusts for faculty who worked at more than one institution during the 2003-04 academic year and had multiple chances of being selected. The faculty unknown eligibility adjustment factor (WT7) adjusts for nonresponding faculty members. Faculty-level response rates were less than 85 percent, both overall and within a number of sampling strata; therefore, the faculty nonresponse adjustment factor (WT8) adjusts for nonresponse. The faculty poststratification adjustment factor (WT9) ensures population coverage. The final analysis weight (WTA00) was computed as the product of the nine weights (Heuer, et al.).

WTA00 = WT1 x WT2 x WT3 x WT4 x WT5 x WT6 x WT7 x WT8 x WT9

According to Thomas and Heck (2001) the weights found in large-scale, nationally representative, secondary datasets, such as the NSOPF: 04, are raw weights. If the raw weight is used when calculating standard error (SE) estimates, PASW would be fooled into believing that the sample size is the same as the population N, which is much larger than it really is. This can lead to incorrect results for calculations that are sample-size-specific, such as variances and covariances. I calculated the SE estimates for each group with the raw weight producing a

population N of 96, 428 for full-time, 70,798 for involuntary part-time, and 101,076 for voluntary part-time faculty. A correction to the raw weight (WTA00) was needed. Hence, I transformed the raw faculty weight into a relative weight by dividing the raw weight by its mean:

$$rewt^{i} = w_i/\overline{w}$$

where w_i is the raw weight and $\overline{w} = \Sigma w_i/n$.

Design Effects

In addition to oversampling, the multistage cluster sampling used in the NSOPF: 04 can also result in homogeneity within the clusters that may lead to underestimated standard error values. The more similar observations are within their respective clusters, the greater is the underestimation of the true variability in the population (Thomas & Heck, 2001). Sample weights correct for oversampling; however, they do not correct for similarities among individuals in a cluster. Therefore, I had to adjust for the design effect (DEFF) so that PASW would produce correct standard errors for hypothesis testing.

Thomas, Heck, and Bauer (2005) offer four alternatives to account for the effects of clustered samples: (a) estimate the model using special software, such as SUDAAN, WesVar, or PCCARP; (b) adjust the estimated standard errors in regression upward as a function of a known root mean design effect (DEFT) value; (c) manipulate the effective sample size by adjusting the relative weight downward as a function of a known design effect (DEFF) value; or (d) leave everything as is but evaluate each parameter in terms of a more conservative critical alpha, such as .01 or .001 instead of .05. The first option is the preferred option; however, I did not have access to the software and the software packages are expensive to purchase and difficult to use properly (Thomas, Heck, & Bauer). The second option requires an adjustment to the standard errors estimated under the simple random sample assumption by the DEFT, which is calculated

as the square root of the DEFF value for the outcome variable. I used the third option which entails altering the effective sample size by adjusting the relative weight downward as a function of the overall DEFF. Byrd, Huffman, and Johnson (2007) used this option to adjust for possible sample design bias in their study using the Early Childhood Longitudinal Study. Using data from the NSOPF: 99, Thomas, Heck, and Bauer (2005) compared the results of the first option, computing the DEFF value using the special software SUDAAN, and the second option, using the DEFF value given in the methodology report. Although the estimates produced by the software were more accurate, those results generated using the average DEFF found in the NSOPF: 99 methodology report yielded similar results in most instances. They found the results obtained when using the third option are roughly equivalent to the results obtained when using the second option. Therefore, I used the third option. I made a note in the limitations section in regards to my use of this option.

DEFF is defined as the following ratio:

$$DEFF = Var_{complex}/Var_{SRS}$$

where $Var_{complex}$ is the sampling variance of the complex sample, and Var_{SRS} is the sampling variance of simple random sampling (Zhou & Volkwein, 2004). Heuer et al. (2006) calculated an average DEFF for key faculty in the NSOPF: 04. By first developing replicate weights using the Kaufman methodology then using those weights with SUDAAN, a commercial software package; Heuer et al. arrived at an estimated average DEFF of 1.88. The adjustment in this study was made by multiplying the relative, or normalized, weight by the reciprocal of the DEFF value and then reweighting the data with this DEFF adjusted relative weight:

$$ADJWGT = RELWGT/DEFF$$

Therefore,

$$ADJWGT = RELWGT/1.88$$

This DEFF adjusted relative weight was used in my analyses. By using this method to produce more accurate standard errors, the effective sample size for each group is altered downward (Thomas & Heck, 2001). Before using the DEFF adjusted relative weight, the sample sizes were as follows: Full-time, N = 2,333; Involuntary Part-time, N = 1,140; Voluntary Part-time, N = 1,349. After applying the DEFF adjusted relative weight, the sample sizes appear as follows: Full-time, N = 1,241; Involuntary Part-time, N = 606; Voluntary Part-time, N = 718. Table 3.3 summarizes how the sample in the NSOPF: 04 was reduced to the final sample size.

Table 3. 3

Summary of Sample Sizes

		Total	Full-time	Involuntary Part-time	Voluntary Part-time
1.	NSOPF: 04 – Total Faculty	26,108			
2.	Faculty at public 2-yr. institutions*	6,408			
3.	Faculty who meet criteria**	4,822	2,333	1,140	1,349
4.	Sample with raw weight***	268,202	96,428	70,698	101,076
5.	Sample after applying DEFF adjusted relative weight****	2,565	1,241	606	718

*Faculty at public two-year postsecondary associate degree granting institutions – Faculty in 1. reduced using 2000 Carnegie Code
**Faculty in 2. reduced to only faculty with instructional duties, having faculty status, teaching as the principal activity, teach credit courses, then separated into groups
***Effective N – Faculty in 3. after applying raw weight.
****Faculty in 3. after applying DEFF adjusted relative weight.

Once the missing values were replaced, variables were recoded, the data were separated into three groups, the outliers were identified and corrected, normality was checked, and weights and

design effect were calculated, I explored the structure of faculty satisfaction with Principal Axis Factoring.

Principal Axis Factoring

The main research question in this study involves the differences in job satisfaction between full-time, involuntary part-time, and voluntary part-time faculty. Question one asks whether there are differences in the structure of job satisfaction for full-time, voluntary part-time and involuntary part-time faculty. In order to determine the structure of job satisfaction for full-time, voluntary part-time and involuntary part-time faculty, I performed principal axis factor (PAF) analyses. Factor analysis was used to find patterns in the correlations among the satisfaction variables (Vogt, 2006). Those variables that could be clustered into groups were combined to create new composite variables.

I used Valadez and Antony's (2001) study to guide my treatment of the satisfaction variables. Valadez and Antony used data from the NSOPF: 93, which is the survey immediately preceding the NSOPF: 04 used in this study. To examine the levels of job satisfaction they used 15 items from the NSOPF: 93 questionnaire that addressed how satisfied individuals were with various aspects of their jobs. They isolated Satisfaction with Job Overall and performed an exploratory principal-components factor analysis (PAC) on the remaining 14 items. The analysis indicated that these 14 items could be grouped reliably into one of three dimensions of satisfaction: satisfaction with autonomy, satisfaction with students and satisfaction with demands and rewards. The questionnaire for the NSOPF: 04 did not include some of the job satisfaction items that appeared in Valadez and Antony's study, but included some new items not in their study.

In the NSOPF: 04, faculty members answered eight questions related to faculty satisfaction. The variables associated with those questions are: *SATAuth, Satisfaction with authority to make decisions*; *SATTech, Satisfaction with technology*; *SATEquip, Satisfaction with equipment and facilities*; *SATInSup, Satisfaction with institutional support*; *SATWorkL, Satisfaction with workload*; *SATSalar, Satisfaction with salary*; *SATBenef, Satisfaction with benefits*; and *SATJobOv, Satisfaction with Job Overall*. Just as did Valadez and Antony (2001), I did not include *SATJobOv, Satisfaction with Job Overall*, the global measure of satisfaction, in the factor analysis in order to allow it to remain as a stand-alone variable.

Instead of performing an exploratory PCA analysis, as did Valadez and Antony (2001), I performed principal axis factoring (PAF) on the remaining seven items to determine if the factors could be grouped. PCA is based on the assumptions that the components are uncorrelated, are measured without error, and have no variance that is shared with the other items (Vogt, 2006). According to Vogt, the measurement of attitudes, such as satisfaction, is typically filled with error and the clusters of items that form attitude scales are likely to be associated. PAF is not based on those assumptions; therefore, I chose to use PAF on the satisfaction variables in this study.

Using PASW software, I ran a separate PAF on each of the three faculty groups to assess the underlying structure for the seven items of faculty satisfaction from the NSOPF: 04 questionnaire. Once the factors were determined, a rotation was performed to make the factors more interpretable. Since I suspected that the factors were related, I performed an oblique method of rotation, also known as *direct oblimin*, for each group (Vogt, 2006). Factors that can be grouped emerged.

A different number of factors emerged for the full-time group than did for the involuntary and voluntary part-time groups. In the Full-time faculty group, *SATTech, Satisfaction with technology*; *SATEquip, Satisfaction with equipment and facilities*; *SATInSup, Satisfaction with institutional support* clustered; *SATWorkL, satisfaction workload*; *SATSalar, Satisfaction with salary*; *SATBenef, Satisfaction with benefits* also clustered. *SATAuth, Satisfaction with Authority to make decisions* did not cluster; hence, it was kept as a separate factor. *SATJobOv, Satisfaction with Job Overall* was not included in the PAF and was kept separate. In the Involuntary and Voluntary part-time groups, as in the full-time group, *SATTech, Satisfaction with technology*; *SATEquip, Satisfaction with equipment and facilities*; *SATInSup, Satisfaction with institutional support* clustered, while *SATAuth, Satisfaction with Authority to make decisions,* did not cluster and *SATJobOv, Satisfaction with Job Overall* was not included in the PAF. Unlike for the full-time group, only *SATSalar, Satisfaction with salary* and *SATBenef, Satisfaction with benefits* clustered. *SATWorkL, Satisfaction workload* did not cluster with other variables as it did in the full-time group; therefore, it was kept separate. In order to determine if those variables were interrelated well enough to add them together and divide by the number of variables to form composite variables, I computed the Cronbach's alpha (Leech, Barrett & Morgan, 2005; Valadez & Antony, 2002).

I created a variable entitled *SATDevRe, Satisfaction with Faculty Development and Resources* to combine the variables *SATTech, Satisfaction with technology*; *SATEquip, Satisfaction with equipment and facilities*; and *SATInSup, Satisfaction with institutional support* for all three groups. The variable entitled *SATDmRw, Satisfaction with Demands and Rewards* was created for only the full-time faculty group to combine the variables *SATWorkL, satisfaction workload*; *SATSalar, Satisfaction with salary* and *SATBenef, Satisfaction with benefits*. The

variable entitled *SATRewar, Satisfaction with Rewards* was created for the involuntary and voluntary part-time faculty groups to combine the variables *SATSalar, Satisfaction with salary* and *SATBenef, Satisfaction with benefits*. The remaining variables were kept separate.

Multiple Regression

Multiple regression was used to determine the predictive ability of the independent variables on the measures of faculty satisfaction (Leech, Barrett & Morgan, 2005). Prior to running a multiple regression, I checked the independent variables for correlation using Pearson's correlation coefficient in the PASW bivariate procedure. According to Leech, Barrett and Morgan (2005), variables that are highly correlated, which is > .50, might lead to multicollinearity. Multicollinear variables are highly correlated variables that contain the same information and are measuring the same thing (Mertler & Vannatta, 2005). After checking for multicollinearity, a multiple regression was performed on each faculty group—full-time, voluntary part-time, and involuntary part-time. The satisfaction variables that emerged from the PAF were used as the dependent variables. I used simultaneous regression, or what PASW refers to as Enter, which tells the computer to consider all the variables at the same time (Hagedorn, 2000).

Ethical Concerns

This study does not present any ethical concerns. Confidentiality is not an issue. By using a national dataset, respondents' identities and place of employment are unknown to the researcher and; therefore, cannot be accidentally or intentionally revealed.

CHAPTER 4: FINDINGS

Introduction

This study was designed to explore the structure of part-time faculty satisfaction and determine if certain factors predict part-time faculty satisfaction. The results and finding of this study are presented in this chapter.

Part-time faculty members are an essential component of two-year institutions, representing 68.2% of the faculty at two-year institutions in 2007 (IPEDS Winter, 2007). Therefore, the satisfaction of those part-time faculty members is crucial. Job satisfaction is positively correlated with life satisfaction (Newstrom, 2007). In addition, positive job attitudes can increase productivity, decrease turnover and absenteeism and increase organizational citizenship behavior.

Given the significance of studying faculty satisfaction, it is imperative that administrators and policy makers understand faculty satisfaction and be cognizant of the factors that lead to faculty satisfaction. The following questions guided this research:

- Does the structure of faculty satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?
- Do the factors that influence satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?

Respondent demographics

The sample profile is illustrated in Table 4.1. There are 2,333 participants in the full-time faculty group, 1,349 in the voluntary part-time group, and 1,140 in the involuntary part-time group. Respondents in the voluntary part-time groups are the oldest, on the average, while respondents in the involuntary part-time group are the youngest. Full-time faculty members

make the highest total income, while involuntary part-timers make the lowest total income. Full-time faculty members spend the greatest number of hours on paid and unpaid tasks, while voluntary part-timers spend the least number of hours.

Over 80 percent of full-time faculty members have only one job, their teaching job at the two-year higher education institution. Over 70 percent of involuntary part-timers have at least

Table 4 . 1

Sample Profile

Variable	Full-time	Vol PT	Invol PT
N	2,333	1,349	1,140
Age – Mean	48.73	49.00	46.68
Income – Log – Mean	$11.00	$10.49	$10.26
Hours on Tasks – Mean	44.90	12.15	16.42
Other Jobs			
0	82.7	26.2	23.3
1	17.3	60.0	76.7
> 1	0.0	13.9	0.0
Gender			
Female	43.2	50.2	50.0
Male	56.8	49.8	50.00
Academic Discipline			
VOC	61.1	63.2	48.5
LAC	38.9	36.8	51.5

one job other than their teaching job at the two-year higher education institution. Approximately 14 percent of the voluntary part-timers had more than one job outside of their teaching job; the full-time and involuntary part-time groups had so few respondents with more than one job other than their teaching position that the values were considered outliers.

The full-time faculty group had the lowest percentage of females, only 43.2 percent; while the part-time groups were almost equally male and female. Over 60 percent of the respondents in the full-time and voluntary part-time groups indicated they taught in the vocationally oriented cluster. Respondents in the involuntary part-time group were almost equally divided among the vocationally oriented cluster and the liberal arts-oriented cluster.

Question One

Principal Axis Factor Analysis

The first question asks whether there are differences in the structure of job satisfaction for full-time, involuntary part-time and voluntary part-time faculty. In order to determine the structure of job satisfaction for full-time, involuntary part-time, and voluntary part-time faculty, I performed principal axis factor (PAF) analyses. Factor analysis was used to find patterns in the correlations among the satisfaction variables (Vogt, 2006). Those variables that could be clustered into groups were combined to create new composite variables. The variable *SATJobOv,* a global measure of satisfaction, was used as a stand-alone variable; therefore, it was not included in the analyses.

Table 4.2 illustrates the results of the PAF with direct oblimin rotation for full-time faculty. After rotation two factors emerged. The factor loading for *SATAuth* was < .4, which is considered to be too small to be important (Vogt, 2006); therefore, it will be kept separate. The

Table 4 . 2

Full-time Faculty – Factor Loadings for the Rotated Factors – Weighted

	Factor Loading	
Satisfaction Item	1	2
SATTech	.785	-.086
SATEquip	.648	-.032
SATInSup	.608	.120
SATAuth	.285	.166
SATSalar	-.067	.812
SATBenef	.018	.638
SATWorkL	.248	.419
Eigenvalues – Initial	2.937	1.070
Eigenvalues -- Rotational	2.075	1.898
Factor correlations		
Factor 1	---	.567
Factor 2	.567	---

two factors each had eigenvalues greater than one. The other six variables were grouped into two composite variables entitled *SATDevRe, Satisfaction with Faculty Development and Resources* and *SATDmRw, Satisfaction with Demands and Rewards*.

I then ran PAF with direct oblimin rotation on the involuntary part-time group (see Table 4.3). After rotation two factors emerged. The factor loadings for *SATWorkL* and *SATAuth* were <

.4, which is considered to be too small to be important (Vogt, 2006). The two factors each had eigenvalues greater than one. Therefore, five variables were grouped into two composite variables; *SATWorkL* and *SATAuth* were kept as separate variables. The composite variables were named *SATDevRe, Satisfaction with Faculty Development and Resources* and *SATDmRw, Satisfaction with Demands and Rewards*.

Table 4 . 3

Involuntary Part-time Faculty – Factor Loadings for the Rotated Factors – Weighted

	Factor Loading	
Satisfaction Item	1	2
SATTech	.832	-.099
SATEquip	.514	-.007
SATInSup	.636	.097
SATAuth	.288	.149
SATSalar	-.079	.789
SATBenef	.050	.583
SATWorkL	.220	.393
Eigenvalues – Initial	2.816	1.025
Eigenvalues -- Rotational	1.997	1.775
Factor correlations		
Factor 1	---	.595
Factor 2	.595	---

I ran PAF with direct oblimin rotation on the Voluntary part-time group. As illustrated in Table 4.4, after rotation two factors emerged; however, the factor loadings for *SATWorkL* and *SATAuth* were < .4, just as in the involuntary part-time group, which is considered to be too

Table 4 . 4

Voluntary Part-time Faculty – Factor Loadings for the Rotated Factors – Weighted

	Factor Loading	
Satisfaction Item	1	2
SATTech	.713	-.060
SATEquip	.686	-.081
SATInSup	.560	.141
SATAuth	.399	.046
SATWorkL	.348	.263
SATSalar	-.016	.702
SATBENEF	.028	.584
Eigenvalues – Initial	2.781	1.032
Eigenvalues -- Rotational	1.997	1.571
Factors correlations		
Factor 1	---	.577
Factor 2	.577	---

small to be important (Vogt, 2006). The two factors each had eigenvalues greater than one. Therefore, five variables were grouped into two composite variables. The variables *SATWorkL* and *SATAuth* were kept as separate variables.

Cronbach's alpha

In order to determine if the factors were interrelated well enough to add them together to form composite variables, the Cronbach's alpha was computed (Leech, Barrett & Morgan, 2005; Valadez & Antony, 2002). The Cronbach's alphas are displayed in Tables 4.5, 4.6, and 4.7.

The two composite variables considered for full-time faculty were *SATDevRe, Satisfaction with Faculty Development and Resources*; and *SATDmRw, Satisfaction with Demands and Rewards*. As indicated in Table 4.5, the alpha for the three factors that are being considered to compose the composite variable *SATDevRe* is .71, which indicates that the items form a scale that has reasonable internal consistency reliability. The alpha for the *SATDmRw*

Table 4 . 5

Full-time Faculty – Satisfaction Scale Factors and Variables – Weighted

Satisfaction scale factors and variables	**Cronbach's α**
SATDevRe, Satisfaction with Faculty Development and Resources	.710
SATTech, Satisfaction with technology	
SATEquip, Satisfaction with equipment and facilities	
SATInSup, Satisfaction with institutional support	
SATDmRw, Satisfaction with demands and rewards	.687
SATSalar, Satisfaction with salary	
SATBenef, Satisfaction with benefits	
SATWorkL, satisfaction with workload	

composite variable is .687. Although alpha should be above .70, Leech, Barrett and Morgan (2005) indicate that it is acceptable to have one or more scales with alphas in the .60 to .69 range, especially if there are only a few items in the scale. *SATDmRw* has only three items in the scale; therefore, an alpha of .687 is acceptable and does indicate internal consistency (Leech, Barrett & Morgan, 2005).

The two composite variables being considered for involuntary part-time faculty are *SATDevRe, Satisfaction with Faculty Development and Resources*; and *SATReward, Satisfaction with Rewards***.** As indicated in Table 4.6, the alpha for the three factors that are being considered to compose the composite variable *SATDevRe* is .688, while the alpha for the two factors that are being considered to compose the composite variable *SATReward* variable is .635. The alphas for both composite variables are acceptable and indicate internal consistency. As discussed previously for full-time faculty, an alpha in the .60 to .69 range is acceptable when there are only a few items in the scale (Leech, Barrett & Morgan, 2005).

Table 4 . 6

Involuntary Part-time Faculty – Satisfaction Scale Factors and Variables – Weighted

Satisfaction scale factors and variables	**Cronbach's α**
SATDevRe, Satisfaction with Faculty Development and Resources	.688
SATTech, Satisfaction with technology	
SATEquip, Satisfaction with equipment and facilities	
SATInSup, Satisfaction with institutional support	
SATReward, Satisfaction with Rewards	.635
SATSalar, Satisfaction with salary	
SATBenef, Satisfaction with benefits	

Table 4.7 illustrates the two composite variables being considered for voluntary part-time faculty—*SATDevRe, Satisfaction with Faculty Development and Resources*; and *SATReward, Satisfaction with Rewards***.** The alpha for the three factors that are being considered to compose the composite variable *SATDevRe* is .691, while the alpha for the two factors that are being considered to compose the composite variable *SATReward* variable is .566. The alpha for *SATDevRe* is acceptable and indicates internal consistency. The alpha for *SATReward* is low (Leech, Barrett & Morgan, 2005). However, the Corrected Item-Total Correlation for the two items is .417. According to Leech, Barrett & Morgan, a value of .40 or above indicates the items are at least moderately correlated and will make a good component of the summated rating scale. Table 4.31 on page 152 summarizes the structure of the satisfaction composite variables for each faculty group.

Table 4 . 7

Voluntary Part-time Faculty – Satisfaction Scale Factors and Variables – Weighted

Satisfaction scale factors and variables	**Cronbach's α**
SATDevRe, Satisfaction with Faculty Development and Resources	.691
SATTech, Satisfaction with technology	
SATEquip, Satisfaction with equipment and facilities	
SATInSup, Satisfaction with institutional support	
SATReward, Satisfaction with Rewards	.566
SATSalar, Satisfaction with salary	
SATBenef, Satisfaction with benefits	

Descriptive statistics for satisfaction items

After running the principal axis factoring and the Cronbach's alphas, I grouped the individual satisfaction items into composite variables describing satisfaction. I ran the descriptive statistics for each satisfaction composite variable and item for each group. Satisfaction is indicated with a value ≥ 3, while dissatisfaction is indicated with a value < 3. The results are illustrated in Table 4.8.

Full-time faculty members were satisfied with all four aspects of their job, *SATDevRe, Satisfaction with Faculty Development and Resources*; *SATDmRw, Satisfaction with Demands and Rewards; SATAuth, Satisfaction with Authority to make Decisions;* and *SATJobOv, Satisfaction with Job Overall.* They were most satisfied with their authority to make decisions and least satisfied with their demands and rewards. Involuntary part-time faculty members were satisfied with *SATDevRe, Satisfaction with Faculty Development and Resources*; *SATWorkL, Satisfaction with Workload; SATAuth, Satisfaction with Authority to make Decisions*; and *SATJobOv, Satisfaction with Job Overall.* However involuntary part-timers were dissatisfied with *SATRewar, Satisfaction with Rewards.* They were most satisfied with their authority to make decisions.

Satisfaction for the voluntary part-time faculty group, as displayed in Table 4.8, is similar to that of the involuntary part-timers in that voluntary part-timers are satisfied with *SATDevRe, Satisfaction with Faculty Development and Resources*; *SATWorkL, Satisfaction with Workload; SATAuth, Satisfaction with Authority to make Decisions;* and *SATJobOv, Satisfaction with Job Overall;* and dissatisfied with *SATRewar, Satisfaction with Rewards.* Just as with involuntary part-timers, voluntary part-timers are most satisfied with their authority to make decisions and least satisfied with their demands and rewards. However, the mean for each satisfaction item is

Table 4 . 8

Descriptive Statistics for all Satisfaction Variables for all Groups

Satisfaction Item	Full-time (adj. n = 1,241)* M	SD	Invol. Part-time (adj. n = 606)* M	SD	Vol. Part-time (adj. n = 718)* M	SD
Satisfaction with Development and Resources	3.13	.64	3.18	.62	3.39	.54
Satisfaction with Demands and Rewards	3.09	.62				
Satisfaction with Rewards			2.34	.88	2.88	.76
Satisfaction with Workload			3.24	.76	3.63	.58
Satisfaction with Authority to Make Decisions	3.71	.55	3.61	.61	3.73	.52
Satisfaction with Job Overall	3.45	.63	3.31	.66	3.61	.57

* n adjusted for oversampling and design effect

higher for voluntary part-timers than for involuntary part-timers, indicating they are more satisfied with each aspect of their job than are involuntary part-timers. Of the three groups, voluntary part-timers are the most satisfied with *SATDevRe, Satisfaction with Faculty Development and Resources; SATAuth, Satisfaction with Authority to make Decisions;* and *SATJobOv, Satisfaction with Job Overall*, which are the only satisfaction items common to all three groups.

There are differences in the structure of faculty satisfaction among full-time, involuntary part-time, and voluntary part-time faculty members. All three groups answered the questions for *SATTech, Satisfaction with technology*; *SATEquip, Satisfaction with equipment and facilities*; and *SATInSup, Satisfaction with institutional support* similarly, enabling those variables to be combined to create the composite variable, *SATDevRe, Satisfaction with Faculty Development and Resources.* In addition, for all three groups *SATAuth, Satisfaction with authority to make decisions* could not be combined with any other variable to make a composite variable. Only the full-time group answered the questions for *SATWorkL, satisfaction workload*; *SATSalar, Satisfaction with salary*; *SATBenef, Satisfaction with benefits* similarly, enabling those variables to be combined to create the composite variable, *SATDmRw, Satisfaction with Demands and Rewards.* Both the involuntary and voluntary part-timers answered the questions for *SATSalar, Satisfaction with salary* and *SATBenef, Satisfaction with benefits* similarly, enabling those variables to be combined to create the composite variable *SATRewar, Satisfaction with Rewards.* *SATWorkL, satisfaction workload* was kept as a separate variable for the involuntary and voluntary part-time groups, while *SATAuth, Satisfaction with authority to make decisions* and *SATJobOv, Satisfaction with Job Overall* were kept as separate variables for all three groups.

Question Two

The second question in this study asks: "Do the factors that influence satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty members?" The variables known to influence faculty satisfaction are perception of equity, partial inclusion, demographic differences, and academic discipline. I used *OPTeacRe, Opinion: teaching is rewarded* and *OPPTFair, Opinion: part-time faculty are treated fairly* to measure perception of equity; and *OthJobs, number of other current jobs* and *HrsTasks, total hours spent on paid and unpaid tasks* to measure partial inclusion. I used *Male*, *gender*; *AGE*; and *IncomeLN, total income*; to measure demographic differences. Finally, I used *VOC*, to measure academic discipline.

To answer this question, I ran a multiple regression statistical model using the variables known to influence job satisfaction for each of the satisfaction items for each faculty group. The multiple regression models examine the significance of each independent variable, as well as, the significance of the entire model to predict the dependent variable (Mertler & Vannatta, 2005).

Multiple Regression

Test for Multicollinearity

Before running the multiple regressions, I checked the independent variables for correlation using Pearson's correlation coefficient in the PASW bivariate procedure. The Pearson's correlation coefficients for the full-time faculty group are all < .50 (see Table 4.9). However, in both the involuntary and voluntary part-time groups, the Pearson's correlation coefficients for OPTeacRe and OPPTFair are > .50. The coefficient is .565 (see Table 4.10) for the involuntary part-time faculty group and .523 for voluntary part-time faculty group (see Table 4.11). According to Leech, Barrett and Morgan (2005), variables that are correlated at .50 or above might lead to multicollinearity.

Therefore, to determine if the highly correlated variables led to multicollinearity, I ran a multiple regression analysis for the involuntary and voluntary part-time groups using the dependent variable *SATDevRe* and all the independent variables—*Opinion: Teaching is rewarded*, *Opinion: Part-time faculty treated fairly*, *Other current jobs*, *Total Hours on Paid and Unpaid Tasks*, *Male*, *Age*, *Total income*, and *VOC*. I did not perform this procedure on the full-time group since the opinion variables for that group were not highly correlated. According to Leech, Barrett, and Morgan (2005), if, in the Coefficients table, the tolerance is below $1 - R^2$ there is probably a problem with multicollinearity.

For the involuntary part-time group, Tolerance should be greater than (1 - .245) or .755 to avoid problems with multicollinearity. As displayed in Table 4.12, tolerance for *OPTeacRe* is .674 and *OPPTFair* is .668, both < .755, which indicates multicollinearity. For the voluntary part-time group, Tolerance should be greater than (1 - .262) or .738, to avoid problems with multicollinearity. As indicated in Table 4.13, tolerance for *OPTeacRe* is .722 and *OPPTFair* is .715, both < .738. In both analyses, the Tolerance value indicated that there was a potential problem with multicollinearity. As suggested by Leech, Barrett, and Morgan (2005), the two highly correlated variables, *OPTeacRe* and *OPPTFair*, were combined for both groups. Since combining the two variables made conceptual sense, the values of the two variables were added together and divided by 2 to create the value for the new composite variable, *PERofEQ, Perception of Equity*. Whereas the two opinion variables were not highly correlated for the full-time group, they were not combined as they were in the other two groups.

Table 4 . 9

Full-time – Intercorrelations for the Predictor variables – Weighted

Predictor Variable	1	2	3	4	5	6	7	8
1. Opinion: Teaching is rewarded	1	.371**	.008	-.025	-.033	-.054	-.039	-.040
2. Opinion: Part-time faculty treated fairly	.371**	1	.009	-.056*	-.042	-.057*	-.074**	-.191**
3. Other current jobs	.008	.009	1	-.022	-.028	-.054	.086**	-.060*
4. Hours on Tasks	-.025	-.056*	-.022	1	.013	.081**	-.077**	.045
5. Male	-.033	-.042	-.028	.013	1	-.081**	-.162**	.040
6. Age	-.054	-.057*	-.054	-.081**	-.081**	1	.370*	-.011
7. Total income	-.039	-.074**	.086**	-.077**	-.162**	.380**	1	-.005
8. VOC	-.040	-.191**	-.060*	.045	.040	-.011**	-.005	1

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Table 4 . 10

Involuntary Part-time – Intercorrelations for the Predictor variables – Before combining opinion variables -- Weighted

Predictor Variable	1	2	3	4	5	6	7	8
1. Opinion: Teaching is rewarded	1	.565*	.026	-.096*	-.005	-.019	.039	-.182*
2. Opinion: Part-time faculty treated fair	.565*	1	.043	-.101*	-.012	-.019	.045	-.201*
3. Other current jobs	.026	.043	1	-.227*	-.036	-.104*	.232*	.035
4. Hours on Tasks	-.096*	-.101*	-.227*	1	.035	-.022	-.060	.038
5. Male	-.005	-.012	-.036	.035	1	-.062	-.187*	.038
6. Age	-.019	-.019	-.104*	-.022	-.062	1	.108*	-.056
7. Total income	.039	.045	.232*	-.060	-.187*	.108*	1	-.082*
8. VOC	-.182*	-.201*	.035	.038	.036	-.056	-.082*	1

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Table 4 . 11

Voluntary part-time – Intercorrelations for the Predictor variables – Before combining opinion variables – Weighted

Predictor Variable	1	2	3	4	5	6	7	8
1. Opinion: Teaching is rewarded	1	.523*	.016	-.061	-.027	-.028	.011	-.108*
2. Opinion: Part-time faculty treated fair	.523*	1	.045	-.124*	-.018	-.064	-.005	-.083*
3. Other current jobs	.016	.045	1	-.229*	-.084*	-.315*	.178*	-.059
4. Hours on Tasks	-.061	-.124*	-.229*	1	.071	.067	-.136*	.035
5. Male	-.027	-.018	-.084*	.071	1	-.076*	-.303*	.086*
6. Age	-.028	-.064	-.315*	.067	-.076*	1	.094*	.111*
7. Total income	.011	-.005	-.178*	-.136*	-.303*	.094*	1	-.069
8. VOC	-.108*	-.083*	-.059	.035	.086*	.111*	-.069	1

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Table 4 . 12

Effects of Multicollinearity – Involuntary Part-time – Satisfaction with Development and Resources – Weighted

Variable	B	SE	β	Tolerance	VIF
Intercept	2.121	.333			
OP: Teaching is rewarded	.204	.035	.249	.674	1.483
OP: Part-time faculty treated	.198	.026	.327	.668	1.497
Other current jobs	-.032	.052	-.023	.880	1.137
Hours on tasks	.001	.002	.014	.935	1.070
Male	-.014	.045	-.011	.962	1.039
Age	.002	.002	.036	.964	1.037
Total income	-.021	.029	-.028	.893	1.120
VOC	.024	.045	.019	.941	1.063

Note. $R^2 = .255$, Adjusted $R^2 = .245$

Table 4 . 13

Effects of Multicollinearity – Voluntary Part-time – Satisfaction with Development and Resources – Weighted

Variable	B	SE	β	Tolerance	VIF
Intercept	1.894	.268			
OP: Teaching is rewarded	.241	.030	.307	.722	1.386
OP: Part-time faculty treated	.177	.028	.243	.715	1.399
Other current jobs	-.028	.031	-.032	.823	1.215
Hours on tasks	-.008	.002	-.117	.924	1.082
Male	.011	.037	.010	.897	1.114
Age	.005	.002	.102	.861	1.162
Total income	.000	.021	.000	.859	1.165
VOC	-.073	.037	-.065	.965	1.037

Note. $R^2 = .27$, Adjusted $R^2 = .262$

Multiple Regression Models

I performed multiple linear regression analyses to examine correlations and determine the predictive ability of the independent variables under study (Leech, Barrett & Morgan, 2005). Eight independent variables, see Table 4.14, were considered for the full-time group—*OPTeacRe, Opinion: Teaching is rewarded; OPPTFair, Opinion: Part-time faculty treated fairly*; *OthJobs, Number of other current jobs*; *HrsTasks, Total hours per week spent on paid and unpaid tasks*; *Male*; *AGE, Age in years as of Fall 2003*; *IncomeLN, Total individual income*; and *VOC, Academic discipline*. Seven independent variables, see Table 4.14, were considered for

Table 4 . 14

Independent and Dependent Variables for Groups

Group	Independent Variables	Dependent Variables
Full-time	**OPTeacRe** – Opinion: Teaching is rewarded	**SATDevRe** – Satisfaction with faculty development and resources
	OPPTFair – Opinion: Part-time faculty treated fairly	**SATDmRw** – Satisfaction with demands and rewards
	OthJobs – Number of other current jobs	**SATAuth –** Satisfaction with Authority to make decisions
	HrsTasks – Total hours per week spent on tasks	**SATJobOv** – Satisfaction with job overall
	Male – Gender	
	AGE –Age in years as of Fall 2003	
	IncomeLN – Natural Log of total individual income	
	VOC – Academic discipline	
Part-time *Involuntary* and *Voluntary*	**PERof EQ** – Perception of Equity	**SATDevRe** – Satisfaction with faculty development and resources
	OthJobs – Number of other current jobs	**SATRewar** – Satisfaction with rewards
	HrsTasks – Total hours per week spent on tasks	**SATWORKL** – Satisfaction with workload
	Male – Gender	**SATAuth** – Satisfaction with Authority to make decisions
	AGE – Age in years as of Fall 2003	**SATJobOv** – Satisfaction with job overall
	IncomeLN – Total individual income	
	VOC – Academic discipline	

both the involuntary and voluntary part-time groups—*PERofEq, Perception of equity*; *OthJobs, Number of other current jobs*; *HrsTasks, Total hours per week spent on tasks*; *Male*; *AGE, Age in years as of Fall 2003*; *IncomeLN, Total individual income*; and *VOC, Academic discipline*. Separate analyses were run for each satisfaction item for each group. All of the predictors were used simultaneously. The alpha level for all models was the PASW default of .05. The full-time group has four analyses since the group has four satisfaction variables—*SATDevRe, Satisfaction with faculty development and resources; SATDmRw, Satisfaction with demands and rewards*; *SATAuth, Satisfaction with authority to made decisions*; and *SATJobOv, Satisfaction with job overall*. The multiple regression model summaries, adjusted R square values, and other relevant data are presented in Tables 4.15 – 4.28. Table 4.32 on page 153 summarizes the standardized beta values from all 14 models. Tables for Multiple Regression models with Means, Standard Deviations, and Intercorrelations for Satisfaction with Workload and Predictor Variables are presented in the Appendix.

Full-time Faculty

Satisfaction with Development and Resources

The four multiple regression analyses for the full-time faculty group are discussed first. Table 4.15 illustrates the multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATDevRe, Satisfaction with Development and Resources* for full-time faculty. The adjusted R square value of .272 indicates that the model explains approximately 27% of the variance of the group's satisfaction with development and resources. The figures indicate that the model significantly predicts *SATDevRe*, $F (8; 1,232) = 59.044$, $p < .001$, with five of the predictor variables—*OPTeacRe, OPPTFair, HrsTasks, Age*, and *IncomeLN*—significantly contributing to the prediction. The beta weights and significance values in Table 4.15

suggest that *OPTeacRe*, *OPPTFair*, and *Age* had positive effects on *SATDevRe*, while *HrsTasks* and *IncomeLN* had negative effects. Having the opinion that teaching is rewarded contributes most to predicting *Satisfaction with Development and Resources*, and having the opinion that part-time faculty are treated fairly, spending fewer hours on paid and unpaid tasks, being older and having a lower total income also contribute to this prediction. The adjusted R square value of .272 indicates a large effect size (Gravetter & Wallnau, 2004). Using this model, a full-time faculty member's satisfaction with development and resources can be predicted with the following linear equation:

$$\text{SATDevRe} = 3.174 + .302\ (\text{OPTeacRe}) + .176\ (\text{OPPTFair}) - .023\ (\text{OthJobs})$$

$$-.004\ (\text{HrsTasks}) - .034\ (\text{Male}) + .005\ (\text{AGE}) - .132\ (\text{IncomeLN}) + .016\ (\text{VOC})$$

Table 4 . 15

Full-time Faculty – Multiple Regression for SATDevRe, Satisfaction with Development and Resources

Variable	*B*	*SEB*	β	t	Sig.
Opinion: Teaching is rewarded	.302	.022	.356	13.628	.000***
Opinion: Part-time faculty treated fairly	.176	.018	.261	9.77	.000***
No. of other current jobs	-.023	.043	-.013	-.527	.598
Hours on Tasks	-.004	.002	-.065	-2.674	.008**
Male	-.034	.032	-.026	-1.067	.286
Age	.005	.002	.072	2.758	.006**
Total income	-.132	.051	-.069	-2.605	.009**
VOC	.016	.032	.012	.480	.631
Constant	3.174	.560		5.664	.000

Note. Adjusted $R^2 = .272$; $F(8; 1{,}232) = 59.044$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Satisfaction with Demands and Rewards

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATDmRw, Satisfaction with Demands and Rewards* for full-time faculty are shown in Table 4.16. The adjusted R square value of .233 indicates that the model explains approximately 23% of the variance of the group's satisfaction with demands and rewards. The figures indicate that the model significantly predicts *SATDmRw*, F (8; 1,232) = 48.164, $p < .001$, with five of the predictor variables—*OPTeacRe, OPPTFair, OthJobs, HrsTasks*, and *IncomeLN*—contributing significantly to this prediction model. The adjusted R square value of .233 indicates a medium effect size (Gravetter & Wallnau, 2004). The beta weights and the

Table 4 . 16

Full-time Faculty – Multiple Regression for SATDmRw, Satisfaction with Demands and Rewards

Variable	*B*	*SEB*	β	t	Sig.
Opinion: Teaching is rewarded	.291	.022	.351	13.110	.000***
Opinion: Part-time faculty treated fairly	.108	.018	.165	6.031	.000***
No. of other current jobs	-.111	.043	-.064	-2.542	.011*
Hours on Tasks	-.007	.002	-.109	-4.361	.000***
Male	.057	.032	.046	1.816	.070
Age	-.001	.002	-.018	-.657	.511
Total income	.363	.051	.195	7.148	.000***
VOC	-.002	.033	-.002	-.066	.948
Constant	-1.794	.560		-3.202	.001

Note. Adjusted $R^2 = .233$; $F(8; 1,232) = 48.164$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

significance values in Table 4.16 suggest that *OPTeacRe*, *OPPTFair*, and *IncomeLN* had positive effects on SATDmRw, while *OthJobs* and *HrsTasks* had negative effects. Having the opinion that teaching is rewarded contributes most to predicting *Satisfaction with Demands and Rewards*, and having the opinion that part-time faculty are treated fairly, having no other jobs, spending fewer hours on paid and unpaid tasks, and having a higher total income also contribute to this prediction. Using this model, a full-time faculty member's satisfaction with demands and rewards can be predicted with the following linear equation:

$$\text{SATDmRw} = -1.794 + .291\,(\text{OPTeacRe}) + .108\,(\text{OPPTFair}) - .111\,(\text{OthJob})$$
$$-.007\,(\text{HrsTasks}) + .057\,(\text{Male}) - .001\,(\text{AGE}) + .363\,(\text{IncomeLN}) - .002\,(\text{VOC})$$

Satisfaction with Authority to Make Decisions

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATAuth, Satisfaction with Authority to make decisions* for full-time faculty are shown in Table 4.17. The adjusted R square value of .077 indicates that the model explains approximately 8% of the variance of the group's satisfaction with authority to make decisions. The figures indicate that the model significantly predicts *SATAuth*, F (8; 1,232) = 14.012, $p < .001$, with three predictor variables—*OPTeacRe, OPPTFair,* and *IncomeLN*— contributing significantly to this prediction model. The adjusted R square value of .077 indicates a small effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.17 suggest that *OPTeacRe, OPPTFair,* and *IncomeLN* have positive effects on *SATAuth*. Having the opinion that teaching is rewarded contributes most to predicting *Satisfaction with Authority to make decisions*, and having the opinion that part-time faculty are treated fairly and having a higher total income also contribute to this prediction. Using this model, a full-time faculty member's satisfaction with authority to make decisions can be predicted with the following linear equation:

$$\text{SATAuth} = 1.752 + .173\,(\text{OPTeacRe}) + .051\,(\text{OPPTFair}) - .062\,(\text{OthJob})$$

$$+ (\text{HrsTasks}) + .029\,(\text{Male}) - .002\,(\text{AGE}) + .12\,(\text{IncomeLN}) + .035\,(\text{VOC})$$

Table 4 . 17

Full-time Faculty – Multiple Regression for SATAuth, Satisfaction with Authority to Make Decisions

Variable	*B*	*SEB*	β	t	Sig.
Opinion: Teaching is rewarded	.173	.021	.238	8.088	.000***
Opinion: Part-time faculty treated fairly	.051	.017	.088	2.938	.003**
No. of other current jobs	-.062	.042	-.041	-1.477	.140
Hours on Tasks	.000	.002	.002	.074	.941
Male	.029	.031	.026	.939	.348
Age	-.002	.002	-.033	-1.017	.269
Total income	.120	.049	.073	2.448	.014*
VOC	.035	.031	.031	1.113	.266
Constant	1.752	.541		3.240	.001

Note. Adjusted $R^2 = .077$; $F(8; 1{,}232) = 14.012$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Satisfaction with Job Overall

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATJobOv, Satisfaction with Job Overall* for full-time faculty are shown in Table 4.18 The adjusted R square value of .257 indicates that the model explains approximately 26% of the variance of the group's satisfaction with their job overall. The figures indicate that the model significantly predicts *SATJobOv*, F (8; 1,232) = 54.53, $p < .001$. Four of the predictor variables—*OPTeacRe, OPPTFair*, *HrsTasks*, and *IncomeLN*—contribute significantly to this prediction model. The adjusted R square value of .257 indicates a large effect size (Gravetter &

Wallnau, 2004). The beta weights and the significance values in Table 4.18 suggest that *OPTeacRe*, *OPPTFair*, *IncomeLN*, and *HrsTasks* are only factors that contributed significantly to *SATJobOv*, with *OPTeacRe*, *OPPTFair*, and *IncomeLN* having positive effects and *HrsTasks* having a negative effect. Having the opinion that teaching is rewarded contributes most to predicting *SATJobOv, Satisfaction with job overall*, while having the opinion that part-time faculty are treated fairly, spending fewer hours on paid and unpaid tasks, and having a higher total income also contribute to this prediction. Using this model, a full-time faculty member's satisfaction with job overall can be predicted with the following linear equation:

$$\text{SATJobOv} = .554 + .336\,(\text{OPTeacRe}) + .127\,(\text{OPPTFair}) - .061\,(\text{OthJobs})$$
$$-.004\,(\text{HrsTasks}) + .059\,(\text{Male}) - .001\,(\text{AGE}) + .151\,(\text{IncomeLN}) + .024\,(\text{VOC})$$

Table 4 . 18

Full-time Faculty – Multiple Regression for SATJobOv, Satisfaction with Job Overall

Variable	*B*	*SEB*	β	t	Sig.
Opinion: Teaching is rewarded	.336	.022	.401	15.192	.000***
Opinion: Part-time faculty treated fairly	.127	.018	.191	7.065	.000***
No. of other current jobs	-.061	.043	-.035	-1.397	.163
Hours on Tasks	-.004	.002	-.067	-2.727	.006**
Male	.059	.032	.047	1.871	.062
Age	-.001	.002	-.014	-.513	.608
Total income	.151	.051	.080	2.992	.003**
VOC	.024	.032	.018	.731	.465
Constant	.554	.559		.992	.321

Note. Adjusted $R^2 = .257$; $F(8; 1{,}232) = 54.53$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Involuntary part-time Faculty

Satisfaction with Development and Resources

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATDevRe, Satisfaction with development and resources* for involuntary part-time faculty are shown in Table 4.19 The adjusted R square value of .247 indicates that the model explains approximately 25% of the variance of the group's satisfaction with their job overall. The figures indicate that the model significantly predicts *SATDevRe*, $F(7, 598) = 29.311$, $p < .001$, with only one predictor variable, *PerofEq*, contributing significantly to the prediction model. The

Table 4 . 19

Involuntary Part-time Faculty – Multiple Regression for SATDevRe, Satisfaction with Development and Resources

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.401	.029	.511	14.029	.000***
No. of other current jobs	-.032	.052	-.023	-.618	.537
Hours on Tasks	.001	.002	.014	.396	.692
Male	-.014	.045	-.011	-.313	.755
Age	.002	.002	.036	.997	.319
Total income	-.021	.029	-.028	-.741	.459
VOC	.024	.045	.019	.535	.593
Constant	2.125	.330		6.439	.000

Note. Adjusted $R^2 = .247$; $F(7, 598) = 29.311$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

adjusted R square value of .247 indicates a medium effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.19 suggest that the only factor that contributes significantly to predicting *SATDevRe* for involuntary part-time faculty is *PerofEq* and it has a positive effect. Therefore having a positive attitude toward perception of equity contributes significantly to Satisfaction with development and resources for full-time faculty.

This model indicates that an involuntary part-time faculty member's satisfaction with development and resources can be predicted with the following linear equation:

$$\text{SATDevRe} = 2.125 + .401\,(\text{PERofEQ}) - .032\,(\text{OthJobs}) + .001\,(\text{HrsTasks}) - .014\,(\text{Male}) + .002\,(\text{AGE}) - .021\,(\text{IncomeLN}) + .024\,(\text{VOC})$$

Satisfaction with Rewards

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATRewar, Satisfaction with rewards* for involuntary part-time faculty are shown in Table 4.20. The adjusted R square value of .336 indicates that the model explains approximately 34% of the variance of the group's satisfaction with rewards. The figures indicate that the model significantly predicts *SATRewar*, $F(7, 598) = 44.702$, $p < .001$, with only three of the predictor ,variables—*PerofEq, IncomeLN, and VOC*—contributing significantly to this prediction model. The adjusted R square value of .336 indicates a large effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.20 suggest that *PerofEQ*, *IncomeLN*, and *VOC* were the only variables that contributed significantly to the model, while *PerofEQ*, and *IncomeLN* had positive effects on *SATRewar*, *VOC* had a negative effect. Having a positive attitude toward perception of equity contributes most to predicting *Satisfaction with Rewards* for involuntary part-timers and having a higher total income and teaching in a vocational related academic discipline also contribute significantly to this prediction. Using this model, an involuntary

part-time faculty member's satisfaction with rewards can be predicted with the following linear equation:

$$\text{SATRewar} = -.479 + .616\,(\text{PERofEQ}) - .015\,(\text{OthJobs}) - .003\,(\text{HrsTasks}) + .021\,(\text{Male}) + .000\,(\text{AGE}) + .103\,(\text{IncomeLN}) - .120\,(\text{VOC})$$

Table 4 . 20

Involuntary Part-time Faculty – Multiple Regression for SATRewar, Satisfaction with Rewards

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.616	.038	.550	16.103	.000***
No. of other current jobs	-.015	.070	-.008	-.217	.828
Hours on Tasks	-.003	.003	-.034	-.982	.327
Male	.021	.060	.012	.359	.720
Age	.000	.003	.005	.141	.888
Total income	.103	.038	.094	2.689	.007**
VOC	-.120	.060	-.068	-1.995	.047*
Constant	-.479	.442		-1.084	.279

Note. Adjusted $R^2 = .336$; $F(7, 598) = 44.702$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Satisfaction with Workload

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATWorkL, Satisfaction with workload* for involuntary part-time faculty are shown in Table 4.21. The adjusted R square value of .169 indicates that the model explains approximately 17% of the variance of the group's satisfaction with their workload. The figures indicate that the model significantly predicts *SATWorkL*, $F(7, 598) = 18.602$, $p < .001$, with only

two of the predictor variables, *PerofEq* and *HrsTask*, contributing significantly to this prediction model. The adjusted R square value of .169 indicates a medium effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.21 suggest that *PerofEq* and *HrsTask*, both with positive effects, were the only variables that significantly contribute to predicting *SATWorkL* for involuntary part-timers. Having a positive attitude toward perception of equity contributes most to predicting *Satisfaction with workload*, while working fewer hours on paid and unpaid tasks also contributes to the model. Using this model, an involuntary part-time faculty member's satisfaction with workload can be predicted with the following linear equation:

$$\text{SATWorkL} = 1.998 + .355\ (\text{PERofEQ}) + .115\ (\text{OthJobs}) - .007\ (\text{HrsTasks})$$

$$- .098\ (\text{Male}) + .003\ (\text{AGE}) + .024\ (\text{IncomeLN}) - .049\ (\text{VOC})$$

Table 4 . 21

Involuntary Part-time Faculty – Multiple Regression for SATWorkL, Satisfaction with Workload

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.355	.037	.371	9.699	.000***
No. of other current jobs	.115	.067	.068	1.728	.084
Hours on Tasks	-.007	.003	-.089	-2.334	.020*
Male	-.098	.057	-.065	-1.711	.088
Age	.003	.003	.041	1.077	.282
Total income	.024	.037	.025	.642	.521
VOC	-.049	.058	-.032	-.846	.398
Constant	1.998	.423		4.718	.000

Note. Adjusted $R^2 = .169$; $F(7, 598) = 18.602$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Satisfaction with Authority to Make Decisions

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATAuth, Satisfaction to make decisions* for involuntary part-time faculty are shown in Table 4.22. The adjusted R square value of .072 indicates that the model explains approximately 7% of the variance of the group's satisfaction with rewards. The figures indicate that the model significantly predicts *SATAuth*, F(7, 598) = 7.701, $p < .001$. The adjusted R square value of .072 indicates a small effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.22 suggest that *PerofEq*, with a positive effect, is the only factor that contributes significantly to predicting *Satisfaction with Authority to make decisions* for involuntary part-timers. Therefore, having a positive opinion toward perception of equity

Table 4 . 22

Involuntary Part-time Faculty – Multiple Regression for SATAuth, Satisfaction with Authority to Make Decisions

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.213	.031	.276	6.829	.000***
No. of other current jobs	-.020	.057	-.015	-.356	.722
Hours on Tasks	.000	.002	.005	.124	.901
Male	-.086	.049	-.070	-1.763	.078
Age	.000	.002	-.004	-.089	.929
Total income	.040	.031	.053	1.277	.202
VOC	.043	.049	.035	.875	.382
Constant	2.696	.361		7.468	.000

Note. Adjusted $R^2 = .072$; $F(7, 598) = 7.701$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

contributes significantly to the prediction of satisfaction with authority for involuntary part-timers. Using this model, an involuntary part-time faculty member's satisfaction with authority to make decisions can be predicted with the following linear equation:

$$\text{SATAuth} = 2.696 + .213\ (\text{PERofEQ}) - .02\ (\text{OthJobs}) + (\text{HrsTasks})$$

$$- .086\ (\text{Male}) + (\text{AGE}) + .04\ (\text{IncomeLN}) + .043\ (\text{VOC})$$

Satisfaction with Job Overall

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATJobOv, Satisfaction with Job Overall* for involuntary part-time faculty are shown in Table 4.23. The adjusted R square value of .327 indicates that the model explains approximately 33% of the variance of the group's satisfaction with their job overall. The figures indicate that the model significantly predicts *SATJobOv*, $F(7, 598) = 43.083$, $p < .001$, with only *PerofEq* contributing significantly to this prediction model. The adjusted R square value of .327 indicates a large effect size (Gravetter & Wallnau, 2004).

The beta weights and the significance values in Table 4.23 suggest that *PerofEq*, with a positive effect, is the only factor that contributes significantly to predicting *Satisfaction with job overall* for involuntary part-time faculty. This indicates that having a positive attitude toward perception of equity contributes significantly to involuntary part-timers' overall job satisfaction. Using this model, an involuntary part-time faculty member's satisfaction with job overall can be predicted with the following linear equation:

$$\text{SATJobOv} = 1.796 + .477\ (\text{PERofEQ}) - .079\ (\text{OthJobs}) - .002\ (\text{HrsTasks})$$

$$+.055\ (\text{Male}) + .002\ (\text{AGE}) + .003\ (\text{IncomeLN}) - .026\ (\text{VOC})$$

Table 4 . 23

Involuntary Part-time Faculty – Multiple Regression for SATJobOv, Satisfaction with Job Overall

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.477	.029	.568	16.522	.000***
No. of other current jobs	-.079	.053	-.053	-1.504	.133
Hours on Tasks	-.002	.002	-.033	-.970	.332
Male	.055	.045	.042	1.229	.219
Age	.002	.002	.030	.888	.375
Total income	.003	.029	.004	.120	.905
VOC	-.026	.045	-.020	-.581	.562
Constant	1.796	.334		5.377	.000

Note. Adjusted R^2 = .327; F(7, 598) = 43.083, p < .001
* p < .05; ** p < .01; *** p < .001

Voluntary part-time Faculty

Satisfaction with Development and Resources

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATDevRe, Satisfaction with development and resources* for voluntary part-time faculty are shown in Table 4.24. The adjusted R square value of .261 indicates that the model explains approximately 26% of the variance of the group's satisfaction with their job overall. The figures indicate that the model significantly predicts *SATDevRe*, F(7, 710) = 37.169, *p* < .001. The adjusted R square value of .261 indicates a large effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.24 indicate that *PerofEq*, *HrsTasks*, *Age*, and *VOC* are the only variables that contribute significantly to *SATDevRe*, with *PerofEq* and *Age* having

positive effects and *HrsTasks* and *VOC* having negative effects. Having a positive attitude of perception of equity contributes most to predicting Satisfaction with development and resources, while spending fewer hours on paid and unpaid tasks, being older, and teaching in a vocational related academic discipline also contribute to the model. Using this model, a voluntary part-time faculty member's satisfaction with development and resources can be predicted with the following linear equation:

$$\text{SATDevRe} = 1.895 + .416\,(\text{PERofEQ}) - .029\,(\text{OthJobs}) - .008\,(\text{HrsTasks})$$

$$+ .011\,(\text{Male}) + .005\,(\text{AGE}) + .000\,(\text{IncomeLN}) - .075\,(\text{VOC})$$

Table 4 . 24

Voluntary Part-time Faculty – Multiple Regression for SATDevRe, Satisfaction with Development and Resources

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.416	.028	.479	14.738	.000***
No. of other current jobs	-.029	.031	-.033	-.921	.357
Hours on Tasks	-.008	.002	-.115	-3.439	.001**
Male	.011	.037	.010	.303	.762
Age	.005	.002	.104	2.996	.003**
Total income	.000	.021	.000	.011	.991
VOC	-.075	.037	-.066	-2.025	.043*
Constant	1.895	.269		7.056	.000

Note. Adjusted $R^2 = .261$; $F(7, 710) = 37.169$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Satisfaction with Rewards

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATRewar, Satisfaction with rewards* for voluntary part-time faculty are shown in Table 4.25. The adjusted R square value of .233 indicates that the model explains approximately 23% of the variance of the group's satisfaction with rewards. The figures indicate that the model significantly predicts *SATRewar*, F(7, 710) = 32.1, $p < .001$, with three of the predictor variables, *PerofEq*, *HrsTasks*, and *VO,* contributing to this prediction model. The adjusted R square value of .233 indicates a medium effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.25 indicate that *PerofEq*, *HrsTasks*, and *VOC* are the only variables that contribute significantly to the prediction of *SATRewar*—*PerofEq* with positive effects, *HrsTasks* and *VOC* with negative effects. Having a positive attitude

Table 4 . 25

Voluntary Part-time Faculty – Multiple Regression for SATRewar, Satisfaction with Rewards

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.538	.040	.442	13.353	.000***
No. of other current jobs	-.034	.045	-.028	-.768	.443
Hours on Tasks	-.008	.003	-.084	-2.459	.014*
Male	-.075	.052	-.049	-1.425	.155
Age	.003	.002	.043	1.234	.218
Total income	.044	.029	.053	1.493	.136
VOC	-.162	.053	-.102	-3.071	.002**
Constant	.781	.383		2.036	.042

Note. Adjusted $R^2 = .233$; $F(7, 710) = 32.10$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

towards perception of equity contributes most to predicting Satisfaction with rewards for voluntary part-timers, while spending fewer hours on tasks and teaching in a vocational related academic discipline also contribute significantly to the model. Using this model, a voluntary part-time faculty member's satisfaction with rewards can be predicted with the following linear equation:

$$\text{SATRewar} = .781 + .538\,(\text{PERofEQ}) - .034\,(\text{OthJobs}) - .008\,(\text{HrsTasks}) - .075\,(\text{Male}) + .003\,(\text{AGE}) + .044\,(\text{IncomeLN}) - .162\,(\text{VOC})$$

Satisfaction with Workload

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATWorkL, Satisfaction with workload* for voluntary part-time faculty are shown in Table 4.26. The adjusted R square value of .132 indicates that the model explains approximately 13% of the variance of the group's satisfaction with their workload. The figures indicate that the model significantly predicts *SATWorkL*, $F(7, 710) = 16.629$, $p < .001$, with three of the predictor variables, *PerofEq, HrsTasks,* and *Age,* contributing significantly to this prediction model. The adjusted R square value of .132 indicates a medium effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.26 suggest *PerofEq*, *HrsTasks*, and *Age* are the only variables that significantly contribute to the *SATWorkL*, with *PerofEq* and *Age* having positive effects and *HrsTasks* having a negative effect. Voluntary part-timers with a positive attitude toward perception of equity contributes most to predicting Satisfaction with workload, while spending fewer hours on tasks and being older also contribute to the model. Using this model, a voluntary part-time faculty member's satisfaction with workload can be predicted with the following linear equation:

$$\text{SATWorkL} = 2.516 + .303\,(\text{PERofEQ}) - .017\,(\text{OthJobs}) - .011\,(\text{HrsTasks}) + .032\,(\text{Male}) + .006\,(\text{AGE}) - .008\,(\text{IncomeLN}) + .011\,(\text{VOC})$$

Table 4 . 26

Voluntary Part-time Faculty – Multiple Regression for SATWorkL, Satisfaction with Workload

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.303	.033	.324	9.197	.000***
No. of other current jobs	-.017	.036	-.018	-.478	.633
Hours on Tasks	-.011	.003	-.144	-3.983	.000***
Male	.032	.043	.027	.736	.462
Age	.006	.002	.112	2.994	.003**
Total income	-.008	.024	-.012	-.329	.742
VOC	.011	.043	.009	.250	.803
Constant	2.516	.313		8.029	.000

Note. Adjusted R^2 = .132; F(7, 710) = 16.629, p < .001
* p < .05; ** p < .01; *** p < .001

Satisfaction with Authority to Make Decisions

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATAuth, Satisfaction with Authority to Make Decisions,* for voluntary part-time faculty are shown in Table 4.27. The adjusted R square value of .066 indicates that the model explains approximately 7% of the variance of the group's satisfaction with authority to make decisions. The figures indicate that the model significantly predicts *SATAuth*, F(7, 710) = 8.264, *p* < .001, with only *PerofEq* contributing significantly to this prediction model. The adjusted R square value of .066 indicates a small effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.27 suggest that *PerofEq* is the only variable that contributes significantly to predicting *SATAuth* for voluntary part-timers and it has a positive effect. Having a positive attitude toward perception of equity contributes most to predicting voluntary part-timers'

satisfaction with their authority to make decisions. Using this model, a voluntary part-time faculty member's satisfaction with authority to make decisions can be predicted with the following linear equation:

$$\text{SATAuth} = 2.844 + .220\ (\text{PERofEQ}) + .006\ (\text{OthJobs}) - .004\ (\text{HrsTasks})$$

$$+ .028\ (\text{Male}) + (\text{AGE}) + .012\ (\text{IncomeLN}) + (\text{VOC})$$

Table 4 . 27

Voluntary Part-time Faculty – Multiple Regression for SATAuth, Satisfaction with Authority to Make Decisions

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.220	.031	.263	7.188	.000***
No. of other current jobs	.006	.034	.006	.162	.871
Hours on Tasks	-.004	.003	-.052	-1.399	.162
Male	.028	.040	.027	.700	.484
Age	.000	.002	.009	.235	.814
Total income	.012	.022	.022	.553	.580
VOC	.000	.040	.000	.006	.995
Constant	2.844	.292		9.755	.000

Note. Adjusted $R^2 = .066$; $F(7, 710) = 8.264$, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Satisfaction with Job Overall

The multiple regression model summary, adjusted R square value and other relevant data for the dependent variable *SATJobOv, Satisfaction with Job Overall* for voluntary part-time faculty are shown in Table 4.28. The adjusted R square value of .295 indicates that the model explains approximately 30% of the variance of the group's satisfaction with their job overall. The figures

indicate that the model significantly predicts *SATJobOv*, F(7, 710) = 43.846, $p < .001$, with only *PerofEq* contributing significantly to this prediction model. The adjusted R square value of .295 indicates a large effect size (Gravetter & Wallnau, 2004). The beta weights and the significance values in Table 4.28 indicate that only *PerofEq* and *Age* contributed significantly to *SATJobOv*, both with positive effects. Having a positive attitude toward perception of equity contributes most to predicting Satisfaction with job overall for voluntary part-timers, while being older also contributes significantly to the model. Using this model, a voluntary part-time faculty member's satisfaction with job overall can be predicted with the following linear equation:

$$\text{SATJobOv} = 1.477 + .493\ (\text{PERofEQ}) - .053\ (\text{OthJobs}) - .004\ (\text{HrsTasks})$$
$$+ .030\ (\text{Male}) + .005\ (\text{AGE}) + .028\ (\text{IncomeLN}) + .033\ (\text{VOC})$$

Table 4 . 28

Voluntary Part-time Faculty – Multiple Regression for SATJobOv, Satisfaction with Job Overall

Variable	*B*	*SEB*	β	t	Sig.
Perception of Equity	.493	.029	.536	16.864	.000***
No. of other current jobs	-.053	.032	-.056	-1.629	.104
Hours on Tasks	-.004	.002	-.057	-1.751	.080
Male	.030	.038	.026	.777	.437
Age	.005	.002	.093	2.758	.006**
Total income	.028	.021	.045	1.329	.184
VOC	.033	.038	.028	.862	.389
Constant	1.477	.278		5.311	.000

Note. Adjusted $R^2 = .295$; F(7, 710) = 43.846, $p < .001$
* $p < .05$; ** $p < .01$; *** $p < .001$

Summary

I performed 14 multiple regression analyses in an attempt to determine if variables measuring perception of equity, partial inclusion, demographic differences, and academic discipline can predict faculty satisfaction at two-year institutions. Table 4.29 provides a summary of the independent variables that significantly influenced the satisfaction variables for each group. The only variables that significantly influenced all facets of satisfaction for all three groups were the perception of equity variables. In addition, the perception of equity variables contributed the most to each of the models.

The partial inclusion variable *OthJobs* significantly influenced only *SATDmRw, Satisfaction with Demands and Rewards,* for the full-time group. The other partial inclusion variable, *HrsTasks, total number of hours spent on paid and unpaid tasks,* significantly influenced three satisfaction variables for the full-time group—*SATDevRe, SATDmRw,* and *SATJobOv*. However, *HrsTasks* significantly influenced only *SATWORKL* for involuntary part-time, while significantly influencing three of the five satisfaction variables—*SATDevRe, SATRewar,* and *SATWORKL*—for voluntary part-timers.

The demographic differences variables include Gender, Age, and Total individual income. Gender did not significantly influence any of the satisfaction variables for any of the groups. Age significantly influenced only *SATDevRe* for full-timers and *SATDevRe*, *SATWORKL* and *SATJobOv* for voluntary part-timers. In each situation, satisfaction increased with age. Total income significantly influenced all four of the satisfaction variables for full-timers. Interestingly, as total income decreased for full-timers, *SATDevRe* increased; whereas, as full-timers' total income increased, *SATDmRw, SATAuth,* and *SATJobOv* increased. Total income significantly influenced only *SATRewar* for involuntary part-timers.

Academic discipline only significantly influenced *SATDev* for both voluntary and involuntary part-timers and *SATRew* for only voluntary part-timers. Those involuntary and voluntary part-timers who taught in a vocational related academic discipline were more satisfied with *SATRewar*. In addition, those voluntary part-timers who taught in a vocational related academic discipline were more satisfied with *SATDevRe*.

Each of the models significantly predicted the corresponding satisfaction variable with a significance value of $p < .05$. However, the percentage of variance explained by each model varied among the groups. Table 4.30 provides a summary of adjusted R^2s for all 14 multiple regression analyses. The prediction models for *SATDevRe*, *SATDmRw*, and *SATJobOv* for the full-time group all had medium size effects (Gravetter & Wallnau, 2004), while SATAuth had a small size effect. The prediction models for the part-time groups also had mixed size effects. For the involuntary part-time group, prediction models for *SATRewar* and *SATJobOv*, had large size effects, the prediction model for *SATWorkL* had a medium size effect, while the prediction model for *SATAuth* had a small size effect. For the voluntary part-time group, the prediction models for *SATDevRe*, *SATRewar*, *SATWorkL*, and *SATJobOv* all had medium size effects; while the prediction model for *SATAuth* had a small size effect.

Conclusion

After performing PAF, I determined that the structure of satisfaction for each faculty group is different. The structure of the part-time groups is more similar than the full-time group. Table 4.31 provides a summary of the satisfaction variables for the full-time, involuntary, and voluntary part-time groups. Also included in Table 4.31 are the values of the Cronbach's alpha for the composite variables.

Table 4 . 29

Summary – Significant influences on Dependent Variables – All Groups and Variables

	OPTeacRe	OPPTFair	OthJobs	HrsTasks	Male	Age	IncomeLN	VOC	
Dep. Variables									
Full-time									
SATDevRe	↑	↑		↓		↑	↓		
SATDmRw	↑	↑	↓	↓			↑		
SATAuth	↑	↑					↑		
SATJobOv	↑	↑		↓			↑		
	PERofEQ		**OthJobs**	**HrsTasks**	**Male**	**Age**	**IncomeLN**	**VOC**	
Invol Part-time									
SATDevRe	↑								
SATRewar	↑						↑		↓
SATWorkL	↑			↓					
SATAuth	↑								
SATJobOv	↑								
Vol Part-time									
SATDevRe	↑			↓		↑			↓
SATRewar	↑			↓					↓
SATWorkL	↑			↓		↑			
SATAuth	↑								
SATJobOv	↑					↑			

Table 4 . 30

Summary of Adjusted R^2s for all Multiple Regression Analyses

	Adjusted R^2
Dep. Variables	
Full-time	
SATDevRe*	.272
SATDmRw*	.233
SATAuth*	.077
SATJobOv*	.257
Invol Part-time	
SATDevRe**	.247
SATRewar**	.336
SATWORKL**	.169
SATAuth**	.072
SATJobOv**	.327
Vol Part-time	
SATDevRe**	.261
SATRewar**	.233
SATWORKL**	.132
SATAuth**	.066
SATJobOv**	.295

* Independent variables: *OPTeacRe, OPPTFair, OthJobs, HrsTasks, Male, Age, IncomeLN, VOC*
**Independent variables: *PERofEQ, OthJobs, HrsTasks, Male, Age, IncomeLN, VOC*

Multiple regression analyses on each of the satisfaction variables for each faculty group revealed that the known influences on faculty satisfaction did predict faculty satisfaction, although differentially based on faculty group and satisfaction type. Perception of equity was the one factor that influenced all satisfaction variables for all three groups and influenced those variables the most among the variables. The results for the other independent variables were mixed for the different groups. Table 4.32 displays the standardized Beta values and significance for each variable on the satisfaction items.

The next chapter provides the discussion, analysis, and findings from the research, are relates the findings to existing knowledge. In addition, the final chapter provides a discussion of the implications of the study findings for both research and practice. Finally, recommendations for further research are given.

Table 4 . 31

Structure of Faculty Satisfaction

	Full-time	Involuntary Part-time	Voluntary Part-time
Satisfaction Items			
Sat Development and Resources*	√	√	√
Sat Demands and Rewards**	√		
Sat Rewards***		√	√
Sat Workload		√	√
Sat with Authority to Make Decisions	√	√	√
Sat Job Overall	√	√	√
Cronbach's alpha			
Composite variables			
Sat Development and Resources*	.710	.688	.691
Sat Demands and Rewards**	.687		
Sat Rewards***		.635	.566

*Sat Development and Resources – Satisfaction with technology, Satisfaction with Equipment, and Satisfaction with Institutional Support
**Sat Demands and Rewards – Satisfaction with Salary, Satisfaction with Benefits, and Satisfaction with Workload
***Sat Rewards – Satisfaction with Salary and Satisfaction with Benefits

Table 4 . 32

Summary of Influences on Satisfaction – Standardized Beta Values and Significance

	OPTeacRe PerofEq β	OPPTFair β	OthJobs β	HrsTasks β	Male β	Age β	IncomeLN β	VOC β
Full-time								
Sat Development and Resources	.356***	.261***	-.013	-.065***	-.026	.072**	-.069***	.012
Sat Demands and Rewards	.351***	.165***	-.064*	-.109**	.046	-.018	.195**	-.002
Sat Authority to make Decisions	.238***	.088**	-.041	.002	.026	-.033	.073*	.031
Sat Job Overall	.401***	.191***	-.035	-.067**	.047	-.014	.080**	.018
Involuntary Part-time								
Sat Development and Resources	.511***		-.023	.014	-.011	.036	-.028	.019
Sat Rewards	.550***		-.008	-.034	.012	.005	.094**	-.068*
Sat with Workload	.371***		.068	-.089*	-.065	.041	.025	-.032
Sat Authority to make Decisions	.276***		-.015	.005	-.070	.004	.053	.035
Sat Job Overall	.568***		-.053	-.033	.042	.030	.004	-.020
Voluntary Part-time								
Sat Development and Resources	.479***		-.033	-.115**	.010	.104**	.000	-.066*
Sat Rewards	.442***		-.028	-.084*	-.049	.043	.053	-.102**
Sat with Workload	.324***		-.018	-.144***	.027	.112**	-.012	.009
Sat Authority to make Decisions	.263***		.006	-.052	.027	.009	.022	.000
Sat Job Overall	.536***		-.056	-.057	.026	.093**	.045	.028

*p < .05, ** p < .01, *** p < .001

CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

This study was designed to explore part-time faculty satisfaction at two-year postsecondary institutions; specifically to find the differences in the structure of satisfaction between full-time, involuntary part-time, and voluntary part-time faculty and to determine the predictors of satisfaction for each group. In previous chapters, I introduced and detailed the issues surrounding part-time faculty satisfaction, provided an in-depth literature review, and presented the methodology and findings.

In this chapter, I analyze and discuss the results of the investigation and relate those findings to existing knowledge. I draw conclusions with respect to each research question. In addition, I present possible implications of the findings of the study for research, theory, and practice. Finally, I offer recommendations for future research on faculty satisfaction at two-year postsecondary institutions.

Analysis and Discussion

The two questions guiding this study are:

- Does the structure of faculty satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?
- Do the factors that influence satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?

Question One

The first question asks, "Does the structure of faculty satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?" I determined that the structure of faculty satisfaction does indeed differ among faculty groups. I examined eight variables related to faculty satisfaction: *Satisfaction with technology*, *Satisfaction with equipment and facilities*,

Satisfaction with institutional support, Satisfaction workload, Satisfaction with salary, Satisfaction with benefits, Satisfaction with authority to make decisions; and *Satisfaction with Job Overall*. When a faculty member answered these questions similarly, the responses to those questions became highly correlated variables that clustered into groups. The values for those variables were combined to create new composite variables.

For all three groups, *Satisfaction with equipment, Satisfaction with technology*, and *Satisfaction with institutional support for teaching* were highly correlated and clustered into one variable—*Satisfaction with faculty development and resources*. This indicates that, regardless of employment preference, faculty had similar views about the equipment, technology and support for teaching improvement provided by their two-year institution. All three groups indicated they were satisfied with faculty development and resources. Therefore, although part-time faculty may not have office space to meet with students, complete paperwork, or store materials on campus; typically do not have office telephone numbers, mailboxes, and computer access; are not listed on mailing lists; have only limited access to photocopy services and the library (Murphy, 2003); and receive less institutional support than their full-time counterparts (Gappa & Leslie, 1993, they are satisfied with what is provided by the institution. Possibly, institutions provide more equipment, technology, and institutional support to part-timers than are reported. Another possibility is that the equipment, technology, and institutional support that are provided to part-timers is all that is really needed to teach, while the items they do not have are more of a luxury to teaching than a necessity. Additionally, it is possible that part-timers have their own computers and cell phones that enable them to prepare their lessons and communicate with students.

For all of the three groups, attitudes towards *Satisfaction with authority to make decisions* were not similar to attitudes of any of the other satisfaction items. Instructional autonomy is the authority faculty members have to make decisions in regards to the content and methods used in their instructional activities (Kim, Twombly, & Wolf-Wendel, 2008). Of all the facets of satisfaction, all three faculty groups had the highest level of satisfaction for this satisfaction item. My findings are consistent with those of Kim, Twombly, and Wolf-Wendel, the degree of satisfaction with instructional autonomy is similar among faculty groups. However, I found that the levels of satisfaction with instructional autonomy are more similar for the voluntary part-time group and full-time group and slightly lower for the involuntary group. Kim, Twombly, and Wolf-Wendel did not separate part-timers into involuntary and voluntary part-time.

Although, as Schmidt (2008) indicates, part-timers generally do not have a voice in the selection of textbooks and many have little time to prepare for classes since they are recruited at the last minute, they are still very satisfied with their ability to make decisions in regards to the content and methods they employ in their teaching activities. This could be explained by the fact that part-timers seldom get evaluated or receive mentoring from full-time faculty or administrators (Murphy, 2003); therefore, they are left to make their own decisions in regard to teaching.

Attitudes towards demands and rewards differed for the full- and part-time groups. For the full-timers, attitudes towards *Satisfaction with salary, Satisfaction with benefits,* and *Satisfaction with workload* were highly correlated and clustered into one variable, indicating that full-time faculty members had similar attitudes towards those facets of satisfaction. Full-time faculty were satisfied with their rewards and benefits; however, the level of satisfaction was the lowest of all facets of full-time satisfaction. For both part-time groups, only attitudes towards

Satisfaction with Salary and *Satisfaction with Benefits* were highly correlated and clustered into one variable. Unlike for the full-time group, part-timers attitudes towards *Satisfaction with workload* were not similar to *Satisfaction with salary* and *Satisfaction with benefits*. Although the levels were low, both part-time groups were satisfied with their workload; however, they were dissatisfied with their rewards. According to Levin, Kater, and Wagoner (2006), pay per credit hour is lower for part-time faculty than it is for full-time faculty and part-time faculty members typically do not receive the benefits afforded full-time faculty, including medical insurance, sick leave, and retirement. Therefore, it is understandable that part-timers would be less satisfied with their rewards and benefits than are full-timers. In regard to workload, part-timers' satisfaction with this facet could be what keeps them working in their part-time position. For the voluntary part-timer the workload may be just enough to keep them professionally engaged and for the involuntary part-timer they may find their workload manageable, regardless of the rewards.

For all faculty groups, *Satisfaction with job overall* was kept as a separate variable. All faculty groups were satisfied with their jobs overall; although voluntary part-timers were most satisfied. These findings are consistent with those of Wolf-Wendel, Ward, & Twombly (2007) who indicate that many individuals choose teaching as a career because they love teaching and teaching gives them personal satisfaction. Faculty members like working with ideas and they enjoy engaging in intellectual discourse with colleagues and students.

Just as did Antony and Valadez (2002), and Maynard and Joseph (2008), I found that part-time positions are not inherently dissatisfying. In their study, Maynard and Joseph (2008) disaggregated faculty at a four-year institution into the same three groups as this study—full-time, involuntary part-time, and voluntary part-time. In fact, they found that satisfaction levels of voluntary part-time faculty are generally more similar to those of full-time faculty than to

involuntary part-timers. Contrary to Maynard and Joseph's findings, this study indicates that voluntary part-timers have higher levels of satisfaction in all facets, except for rewards, than do full-timers and that the levels of satisfaction for involuntary part-time faculty are more similar to those of full-time faculty than to voluntary part-timers. Although Toutkoushian and Bellas (2003) found that part-time faculty are marginally more satisfied with their jobs overall than are full-time faculty at all institutional types, once I disaggregated the part-timers into involuntary and voluntary groups, I discovered that only the voluntary part-time group is more satisfied than full-timers. Even in the rewards facet, voluntary part-timers are more satisfied than involuntary part-timers. Voluntary part-timers are probably more satisfied than involuntary part-timers since their employment status is consistent with their employment preference. They are probably more satisfied than full-timers since they are able to focus on teaching and are not burdened with the paperwork, committee work, and advising that full-timers must do in addition to teaching (Gappa & Leslie, 1993).

Knowing that part-time teaching positions are not inherently dissatisfying is important to the two-year institutions and to the faculty members themselves. Administrators can utilize part-time faculty without experiencing systemic negative consequences related to dissatisfied employees—low morale, high turnover, absenteeism, tardiness, theft, violence and poor organizational behavior (Newstrom, 2007). Although, on a whole, part-timers are satisfied with their jobs, if administrators can find part-time faculty who prefer part-time positions, those voluntary part-timers will most likely be the most satisfied with their job. These findings are also important for the faculty members themselves. According to Sorcinelli and Near (1989), there is considerable spillover between work and life away from work and there is a high correlation between job and life satisfaction. Therefore, faculty members can be assured that teaching at

two-year higher education institutions can be satisfying, even for an involuntary part-timer who may want a full-time position. According to Bess (1977), faculty need to feel that their teaching careers are satisfying in order to fully function in all areas of their lives, otherwise, they will leave the profession.

To answer question one, there are differences in the structure of job satisfaction for full-time, voluntary part-time and involuntary part-time faculty. The structure of job satisfaction for the two part-time groups is more similar than the structure of job satisfaction for the full-time faculty group; however, the levels of satisfaction are higher for voluntary part-timers. With the structure of satisfaction determined for each group, attention now shifts to the second question.

Question Two

Question two asks, "Do the factors that influence satisfaction differ among full-time, involuntary part-time, and voluntary part-time faculty?" The factors that were considered are: perception of equity, partial inclusion, demographic differences, and academic discipline. After performing multiple regression analyses for each satisfaction variable for each group to determine the influence of the predictor variables on the satisfaction variables, I determined that the factors that influence satisfaction do differ among full-time, involuntary part-time, and voluntary part-time faculty. I also determined that more factors influence the satisfaction for full-timers and voluntary part-timers than for involuntary part-timers, making full-time and voluntary part-time satisfaction more complex than involuntary part-time satisfaction.

Partial inclusion is the one factor that significantly influenced all aspects of satisfaction for all groups and influenced all facets of satisfaction more than any other factor. Gender is the only factor that did not significantly influence any aspect of satisfaction for any group. Following is a discussion of each factor that was considered.

Perception of equity

The first independent variable considered was perception of equity. Based on equity theory, perception of equity acknowledges that satisfaction does not only depend on an individual's own beliefs and circumstances, but also on what happens to other people (Colquitt, LePine, & Wesson, 2009). Perception of equity was the only independent variable that significantly influenced all facets of satisfaction for all faculty groups. In fact, perception of equity contributed the most to predicting all of the satisfaction variables for all of the groups.

These findings are consistent with those of other job satisfaction studies. In their study of full-time faculty satisfaction at four-year universities, Terpstra and Honoree (2004) found that academic faculty are more satisfied with their jobs and pay when their university's overall-salary level is high, regardless of their own pay. This could indicate that faculty members perceive the university as valuing their faculty and staff more than other universities by paying higher salaries, and; thereby, increasing the faculty members' perception of equity. This finding is in keeping with the findings of Herzberg, Mausner, and Snyderman (1959/1993) who found that the perception of equity of salary is a greater source of job satisfaction than the amount of salary itself. Kim, Twombly and Wolf-Wendel (2008) considered perception of equity factors—faculty opinions about teaching being rewarded by the institution, and part-time faculty members, female faculty members, and minority faculty members being treated fairly—in their study of satisfaction with autonomy at community colleges. Exploring only one facet of job satisfaction, Kim, Twombly and Wolf-Wendel found that opinions of how faculty members are treated were highly predictive of satisfaction with instructional autonomy.

Since perception of equity was the only variable that influenced all facets of satisfaction for all three groups, it can be concluded that regardless of employment preference, faculty

members are satisfied with their jobs if they perceive themselves and their colleagues as being treated fairly. This is an important finding. According to McShane and Glinow (2008), employees who perceive themselves as being treated inequitably may reduce their outputs by performing at lower levels and engaging less in organizational citizenship behavior or may increase their outcomes by making unauthorized use of company resources, or may take more sick leave, or eventually leave the company. All of these consequences are undesirable for the faculty members and the institution and, ultimately, detrimental to the success of the institution and the students.

Institutions should make every effort to treat all faculty members equitably in regards to pay, workload, and hiring practices. In addition, there are steps faculty members can take to perceive themselves as being treated more equitably. Faculty members can change their referent other—the person or group to which they are comparing themselves (Newstrom, 2007). For example, involuntary part-timers may be comparing themselves to full-timers; however, full-timers have many more duties, such as advising and committee work, than part-timers may realize. Therefore, part-time and full-time positions are not really comparable. Therefore, if part-timers change their referent other to other part-timers, they may increase their faculty satisfaction. In addition, faculty members who feel they are inequitably treated can talk to their administrators to try to resolve any inequitable situations.

Partial inclusion

The second independent variable considered is partial inclusion. According to partial inclusion theory, the more roles individuals have outside of their teaching job, the less they are included in the institution's social system (Katz & Kahn, 1978; Thorsteinson, 2003). Faculty members have many roles in their lives and the roles they perform at work are only a portion of

their identity. The number of non-institutional roles and the relative importance of those roles may influence the degree of inclusion in faculty members' teaching positions and their job satisfaction. Part-time faculty members who are on campus for a shorter time than their full-time counterparts are less included in the institution's social system and may be more included in their other social systems than are full-time faculty members. Additionally, part-time faculty members may teach fewer hours and have more schedule flexibility that enables them to either do other activities that they may enjoy more than teaching or enable them to fulfill their non-institutional roles. Therefore, as other roles and responsibilities outside their job increase and the number of hours faculty members spend on tasks at the institution decreases, faculty member satisfaction should increase. In other words, it was expected that the number of other jobs would have a significant positive influence and total hours on paid and unpaid tasks would have a significant negative influence on the satisfaction of all faculty groups, more so for part-timers than full-timers. Two variables were used to measure partial inclusion: *Other current jobs* and *Total hours spent per week on paid and unpaid tasks*.

Having other current jobs significantly influenced only one facet of satisfaction, *Satisfaction with demands and reward*, for only one group, full-timers. Interestingly, although over 70 percent of both involuntary and voluntary part-time faculty members have other jobs in addition to their teaching position, having another job does not influence any facet of their faculty satisfaction. This finding is contrary to partial inclusion theory. Possibly those full-time faculty members who were dissatisfied with the demands and rewards of their teaching position found it necessary to work at another job to supplement their income or to find some satisfaction in their professional life. Another possibility is that the demands and rewards of the other job

compared to the demands and rewards of their teaching position may be more satisfying. It is also possible that having other current jobs was not a good measure of partial inclusion.

Total hours spent on paid and unpaid tasks, the second measure of partial inclusion, contributed significantly to some facets of satisfaction for each faculty group. *Total hours spent per week on paid and unpaid tasks* had a significant negative influence on three of the four facets of satisfaction for the full-time group, four of the five facets of satisfaction for the voluntary part-time group, and only one of the five facets of satisfaction for the involuntary part-time group. Therefore, findings for the full-time and voluntary part-time groups were more similar than those of the two part-time groups.

After perception of equity, total hours on paid and unpaid tasks was the variable that significantly influenced the most satisfaction variables. For both part-time groups, *Satisfaction with workload* was negatively influenced by total number of hours on paid and unpaid tasks. This is consistent with partial inclusion theory in that the more hours spent on paid and unpaid tasks reduces the available time a faculty member can spend on tasks and responsibilities outside the institution; thereby, decreasing satisfaction. The variable negatively influenced the satisfaction variable that dealt with pay and benefits for full-time and voluntary part-time; however, it is possible that those faculty members felt that they were not compensated enough for the hours they were spending on tasks, instead of being a case of partial inclusion. Because the literature did not offer measures for partial inclusion, it is possible that the two measures used in this study for partial inclusion were not good measures.

Demographic differences

The third category of independent variables considered is demographic differences, specifically, gender, age and income. Gender has been considered in many studies; however, its

influence on job satisfaction was inconclusive (Hagedorn, 2000; Toutkoushian & Bellas, 2003). In this study, gender had no significant effect for any of the satisfaction items for any of the groups. Likewise, Hagedorn (2000) did not find gender to be one of the highly predictive variables of overall faculty satisfaction in her study. Lacy and Sheehan (1997) and Toutkoushian and Bellas (2003) found that male academics tended to be more satisfied than females with some aspects of their jobs. Booth & van Ours (2008) found that job satisfaction for men was positively correlated with household income, but negatively correlated for women and found that women who worked 15 or fewer hours per week were most satisfied with their jobs.

Gender may significantly influence job satisfaction in some circumstances; however, it did not significantly influence faculty satisfaction at two-year postsecondary institutions in this study. Even though the percentage of females to males in part-time positions is increasing (Eagan, 2007; IPEDS Fall, 2003) and only 43% of full-time faculty in this study are female, while approximately 50% of the both part-time groups are female, the findings in this study indicate that females are equally satisfied as males with their jobs. Even though female faculty members represent a larger proportion of part-timers than of full-timers, females are not less satisfied with their teaching positions than are male faculty members.

The second variable used to measure demographic differences is *Age*. Age significantly influenced the satisfaction of the voluntary part-time group more than any other group. Hagedorn (2000) found that, on average, satisfaction for faculty at all institutional types increases with age. Cohen and Brawer (2003) indicate that older individuals, especially those entering the teaching profession after retiring from a career or making a mid-life career change, are more satisfied with their jobs at two-year institutions than are younger instructors. Jacoby (2005) contends that

younger part-time faculty members are more likely to desire full-time tenure track employment than older part-timers, which may lead to dissatisfaction with their part-time positions.

My findings are consistent with the literature regarding older faculty. Since voluntary part-timers want to teach only part-time, it is possible that many older voluntary part-timers are retired and find professional fulfillment when teaching part-time. In addition, they probably find personal fulfillment with their interaction with students and other faculty members. Just as it did with the voluntary part-timers, age had a significant positive effect on full-timers' satisfaction with development and resources. Possibly older faculty members do not have the latest technology in their homes; therefore, by teaching, they are able to use the latest technology and equipment used in their profession. My findings were not consistent with Jacoby's (2005) contention that younger part-timers may be dissatisfied because they want full-time tenure track employment. Age did not significantly influence any aspect of the involuntary part-time group.

Income was another measure of demographic difference that was considered in this study. There is a substantial difference in institutional pay between part- and full-time faculty members (Levin, 2005). However, instead of considering only institutional salary, I considered total individual income from all sources. Interestingly, although institutional pay is lower for part-timers; income significantly influenced satisfaction for full-timers more than for part-timers. In fact, income significantly influenced all facets of satisfaction for full-timers. Income had a significant negative influence on *Satisfaction with development and resources* for full-timers indicating that as income decreased, satisfaction with development and resources increased. One possible explanation for this is that full-timers with lower total incomes do not have the latest technology at home and; therefore, are able to use the technology at school. Income also increased *Satisfaction with demands and rewards*, *Satisfaction with authority to make decisions,*

and *Satisfaction with the job overall* increased for the full-time group. However, income had a significant influence on only one facet of satisfaction—*Satisfaction with rewards*—for only one part-time group—involuntary part-timers. Income did not significantly influence any facet of satisfaction for voluntary part-timers, indicating that they are probably not teaching for financial reasons.

In other studies, income's influence on faculty satisfaction is mixed. Hagedorn (2000) found that salary was one of the highly predictive factors for full-time faculty satisfaction at four-year institutions. The findings in this study are consistent with Hagedorn's in that full-time satisfaction was significantly influenced by income. Cohen and Brawer (2003) found that faculty members at two-year institutions are happier than their four-year counterparts with their salaries. Antony and Valadez (2002) found no significant difference between full- and part-time faculty with their satisfaction of demands and rewards, which includes pay.

Academic discipline

Academic discipline was another factor that was considered in the study. Each academic discipline has its own culture and identity and such differences affect practices regarding the employment and treatment of part-time faculty (Frost & Jean, 2003). Academic disciplines differ according to availability of outside employment opportunities, number of part-timers utilized, and types of courses taught. The variable *VOC, Academic discipline*, measured Academic Discipline.

Academic discipline did significantly influence some aspects of satisfaction for the part-time groups. It did not significantly influence any facet of satisfaction for the full-time group. For both the involuntary and voluntary part-timers, teaching in a vocational related academic discipline made a significant positive contribution to *Satisfaction with rewards*. A good reason

for this finding is that, according to Wagoner (2007), part-time faculty members in the vocational and training areas earn significantly more in total income than their counterparts in the arts and sciences. For only the voluntary part-timers, teaching in a vocational related academic discipline significantly contributed to *Satisfaction with development and resources*. Possibly those voluntary part-timers appreciate staying on top of their professions by using the latest technology and equipment and receiving professional development.

In their study of full-time faculty satisfaction at four-year universities, Terpstra and Honoree (2004) found that pay satisfaction varies significantly by discipline type. Academic faculty in the vocationally oriented disciplines of Law and Business were significantly more satisfied with their pay than faculty in other disciplines, while faculty members in the vocationally oriented discipline of Sciences were the least satisfied with their pay. The findings in this study were similar in that academic discipline influenced pay satisfaction; however, that influence was only evident for the part-time groups. Unlike Terpstra and Honoree's study of faculty at four-year universities, this study of faculty at two-year institutions found no significant influence of academic discipline on any facet of satisfaction for the full-time group.

Olsen, Maple and Stage (1995) found that overall satisfaction with the academic department was a positive predictor of job satisfaction for women, as well as minority faculty. Contrary to Maple and Stage's findings, academic discipline in this study did not significantly contribute to *Satisfaction with job overall*. As did Terpstra and Honoree (2004) and Hagedorn (2000), this study did not find academic discipline to be a highly predictive variable of overall job satisfaction. Academic discipline had mixed results as a predictor of faculty satisfaction.

To answer question two, known influences on faculty satisfaction do differ in predicting job satisfaction for full-time, involuntary and voluntary part-time faculty. Perception of equity

significantly influenced all facets of satisfaction for all faculty groups, gender did not significantly influence any aspect of satisfaction for any group, and the other factors influenced satisfaction differently for each group. More factors influenced satisfaction for the full-time and voluntary part-time groups, making their satisfaction more complex than the involuntary part-time group's satisfaction. This is an interesting finding that is not addressed in the literature. Possibly the fact that involuntary part-timers' positions are not consistent with their employment preference makes them more sensitive to perception of equity. Possibly they already feel that they have compromised their wants by working in a part-time position when they really want a full-time position; therefore, as long as they perceive that they are being treated equitably they are satisfied with their job. In contrast, full-time and voluntary part-time faculty members' employment preference is consistent with their employment status; therefore, a wider variety of factors influence their satisfaction.

Conclusion

The results of this study indicate that there are differences in job satisfaction between full-time, involuntary part-time and voluntary part-time faculty. The structure of faculty satisfaction differs among the faculty groups. The structure of satisfaction for involuntary and voluntary part-timers is similar, but differs from that of the full-timers. The levels of faculty satisfaction are similar for full-time and involuntary part-timers, however, voluntary part-timers report the highest levels of satisfaction.

In addition to the structure of satisfaction differing among faculty groups, the factors known to influence faculty satisfaction—perception of equity, partial inclusion, demographic differences, and academic discipline—differ in predicting faculty satisfaction for the three groups. Partial inclusion is the only factor that significantly influenced all aspects of satisfaction

for all groups and influenced all facets of satisfaction more than any other factor. Gender is the only factor that did not significantly influence any aspect of satisfaction for any group. The factors that significantly influenced the satisfaction items for the full-time and voluntary part-time groups were more diverse than those of the involuntary part-time group. This indicates that satisfaction for those faculty members whose employment status is congruent with their work status preference is more complex than those faculty members whose work status is incongruent with their work status. These findings have implications for theory, policy, and practice, all of which will be discussed in the next section.

Implications for Theory, Policy and Practice

Implications for Theory

The findings of this study contribute to the body of literature relating to faculty and job satisfaction. In addition, it contributes to the body of literature relating to perception of equity. The one factor that contributed the most to each facet of satisfaction for all faculty groups at two-year public institutions was perception of equity. This study indicates that regardless of faculty employment status or status preference, faculty members are more satisfied with all facets of their job if they perceive themselves and others as being treated equitably. Therefore, these findings contribute to equity theory. In addition, this study found that the factors that significantly influence satisfaction are more complex for faculty members whose employment status is congruent with their employment status preference, thereby contributing to job satisfaction theory, and work status congruence theory.

Implications for Policy

This study indicates that satisfaction among full-time, involuntary part-time, and voluntary part-time faculty is not similar. The structure of satisfaction between the groups is

different as are the variables that influence each facet of satisfaction. Understanding that part-time faculty satisfaction is not homogenous will enable institutions to create specialized policies for particular part-time groups which may meet the needs of each group better than programs that conceptualize part-time faculty as an aggregate (Wagoner, 2007). Policies focusing on equitable treatment of all faculty members should be established. Those policies should include equitable pay, especially across academic disciplines, equitable workloads, and equitable hiring policies. Those policies should also include equitable pay and benefits for all faculty groups as compared to administrators, since the referent other used by faculty members may be administrators. Those policies could include assigning more teaching hours and paid duties to those part-timers preferring full-time positions and could include giving part-timers preference when full-time positions are being filled.

Implications for Practice

The findings in this study are important for faculty members and for the public two-year postsecondary institutions. The findings can help all faculty members understand what is affecting their job satisfaction and enable them to explore ways to increase their satisfaction. In addition, the findings provide valuable information to potential part-time faculty members which could help them make an informed decision about accepting a part-time position, especially when they really want a full-time position.

Perception of equity is the one variable that influences all facets of satisfaction for all three groups; therefore, administrators and policy makers need to ensure that equity is indeed occurring—in pay, benefits, and course and committee assignments. For full-time faculty, their satisfaction was not only influenced by the perception of their own equity, but also by the perception of part-time faculty being treated fairly. Therefore, part-time faculty must be treated

fairly to maintain satisfaction among all the faculty groups. For part-time faculty, understanding that perception of equity significantly influences all facets of their satisfaction may enable them to find ways to manage or adjust their perceptions. Colquitt, LePine, and Wesson (2009) suggest changing the referent other. In other words, when feelings of inequity surface, part-time faculty members could change the group or persons to which they are comparing themselves. Full-time work is not comparable to that of part-time work; therefore, part-timers comparing themselves to full-timers is not accurate. By changing their referent other to other part-timers, part-timers would change their perception of equity and, possibly, improve their job satisfaction.

The variables that influence faculty satisfaction differ for each group; therefore, administrators' efforts to satisfy faculty may not influence all faculty groups the same and it may take some ingenuity and creativity to satisfy all groups. Administrators should know their faculty and understand their different goals and wants, especially when it comes to part-time faculty (Rowh, 2010). Administrators should receive training as to how to reward and interact with the various faculty groups in order to increase faculty satisfaction. According to Rowh, administrators should position part-timers as valuable members of faculty and possibly include them in meetings and written communications. Institutional efforts to show that faculty members' work is appreciated may be as simple as a memo thanking them for their hard work, or cake and punch, or an appreciation luncheon or dinner. Acknowledgments and rewards that enable faculty members to perceive that they are being treated equitably should increase faculty satisfaction.

Suggestions for Future Research

Times have changed considerably since the NSOPF: 04 was conducted. States have reduced their funding for higher education considerably and full-time faculty members have lost

positions. According to McShane and Von Glinow (2008), job satisfaction changes with economic conditions and job satisfaction is highest in countries where the economy is booming at the time of the survey. Therefore, it is imperative to conduct another series of the NSOPF to capture the feelings of faculty members towards their job satisfaction now. A study on the comparison of faculty satisfaction during the economic boom of the early 2000s and the subsequent bust at the end of the decade would provide valuable information to faculty and job satisfaction literature.

The designers of the NSOPF should consider expanding rather than restricting the data gathered. Questions in regard to satisfaction have been eliminated from each successive NSOPF, making it harder to study the structure of satisfaction and truly gauge faculty satisfaction. The reinstatement of the question in regard to satisfaction with student quality would be especially beneficial since faculty teach academically diverse students. If the trend of eliminating satisfaction questions from the NSOPF continues, researchers will be forced to either perform their own surveys or rely on qualitative data to study faculty satisfaction.

Research on part-time faculty satisfaction and student outcomes is needed, especially now that financial support from the federal government may be tied to program completion, work-force preparation, and job placement instead of enrollment numbers (Field, 2010). Since job satisfaction is positively correlated with organizational behavior, faculty members who are more satisfied may spend more time helping and advising their students and, in turn, encourage degree attainment. The findings in this study indicate that further research on part-time faculty satisfaction and academic discipline is warranted. In addition, research on faculty satisfaction and the proportion of part-time to full-time faculty at an institution is needed. The proportion may influence satisfaction for all faculty groups. Research involving faculty satisfaction and

interactions with and attitudes towards administration and fellow faculty members is recommended. In addition, further research on part-time faculty and partial inclusion is warranted. Since the measures used in this study may not have been adequate, other measures should be explored. Further research on employment preference is needed, especially since higher education budgets are being cut, full-time faculty positions are being eliminated, and part-time positions are expected to increase.

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Appendix

Tables for Multiple Regression models with Means, Standard Deviations, and Intercorrelations for Satisfaction with Workload and Predictor Variables

Correlations for Regression Analyses

Table A.1

Full-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Development and Resources and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7	8
Sat Development and Resources	3.13	.641	.45**	-.40**	-.02	-.09**	-.04	.02	-.07**	-.06*
Predictor Variables										
1. OP: Teaching is rewarded	3.07	.75	--	.371**	.008	-.025	-.033	-.054*	-.039	-.04
2. OP: Part-time treated fairly	2.76	.95	.371**	--	.009	-.056*	-.042	-.057*	-.074**	-.191**
3. Other Jobs	.15	.36	.008	.009	--	-.022	-.028	-.054*	-.086*	-.06*
4. Hours on Tasks	45.06	9.92	-.025	-.056*	-.022	--	.013	-.081**	-.077**	.045
5. Male	1.46	.50	-.033	-.042	-.028	.013	--	-.081**	-.162**	.04
6. Age	49.00	9.74	-.054*	-.057*	-.054*	-.081**	-.081**	--	.37**	-.011
7. Income-Log	11.01	.34	-.039	-.074*	.086**	-.077**	-.162**	.37**	--	-.005
8. VOC	.39	.49	-.040	-.191**	-.060*	.045	.04	-.01	.005	--

*p < .05. **p < .01.

Table A.2

Full-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Demands and Rewards and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7	8
Sat Demands and Rewards	3.09	.62	.407**	.286**	-.04	-.139**	-.022	.035	.158**	-.047
Predictor Variables										
1. OP: Teaching is rewarded	3.07	.75	--	.371**	.008	-.025	-.033	-.054*	-.039	-.04
2. OP: Part-time treated fairly	2.76	.95	.371**	--	.009	-.056*	-.042	-.057*	-.074**	-.191**
3. Other Jobs	.15	.36	.008	.009	--	-.022	-.028	-.054*	-.086*	-.06*
4. Hours on Tasks	45.06	9.92	-.025	-.056*	-.022	--	.013	-.081**	-.077**	.045
5. Male	1.46	.50	-.033	-.042	-.028	.013	--	-.081**	-.162**	.04
6. Age	49.00	9.74	-.054*	-.057*	-.054*	-.081**	-.081**	--	.37**	-.011
7. Income-Log	11.01	.34	-.039	-.074*	.086**	-.077**	-.162**	.37**	--	-.005
8. VOC	.39	.49	-.040	-.191**	-.060*	.045	.04	-.01	.005	--

*p < .05. **p < .01.

Table A.3

Full-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Authority to Make Decisions and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7	8
SATAuth	3.71	.55	.27**	.17**	-.03	-.01	.08	-.02	.04	.01
Predictor Variables										
1. OP: Teaching is rewarded	3.07	.75	--	.37**	.01	-.03	-.03	.05*	-.04**	-.19**
2. OP: Part-time treated fairly	2.76	.95	.37**	--	.01	-.06*	-.04	.06*	-.07**	-.19**
3. Other Jobs	.15	.36	.01	.01	--	-.02	-.03	-.05*	.09**	-.06*
4. Hours on Tasks	45.06	9.92	-.25	-.06*	-.02	--	.01	-.08**	.08**	.05
5. Male	1.46	.50	-.03	-.04	-.03	.01	--	-.08**	-.16**	.04
6. Age	49.00	9.74	-.05*	-.06*	-.05*	-.08**	-.08**	--	.37**	-.01
7. Income-Log	11.01	.34	-.04	-.07**	.09**	-.08**	-.16**	.37**	--	-.01
8. VOC	.39	.49	-.04	-.19**	-.06*	.05	.04	-.01	-.01	--

*p < .05. **p < .01.

Table A.4

Full-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Job Overall and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7	8
Sat Job Overall	3.45	.632	.468**	.332**	-.023	-.091**	.014	.013	.04	-.033
Predictor Variables										
1. OP: Teaching is rewarded	3.07	.75	--	.371**	.008	-.025	-.033	-.054*	-.039	-.04
2. OP: Part-time treated fairly	2.76	.95	.371**	--	.009	-.056*	-.042	-.057*	-.074**	-.191**
3. Other Jobs	.15	.36	.008	.009	--	-.022	-.028	-.054*	-.086*	-.06*
4. Hours on Tasks	45.06	9.92	-.025	-.056*	-.022	--	.013	-.081**	-.077**	.045
5. Male	1.46	.50	-.033	-.042	-.028	.013	--	-.081**	-.162**	.04
6. Age	49.00	9.74	-.054*	-.057*	-.054*	-.081**	-.081**	--	.37**	-.011
7. Income-Log	11.01	.34	-.039	-.074*	.086**	-.077**	-.162**	.37**	--	-.005
8. VOC	.39	.49	-.040	-.191**	-.060*	.045	.04	-.01	.005	--

*p < .05. **p < .01.

Table A.5

Involuntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Development and Resources and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATDevRe	3.18	.62	.50**	-.02	-.04	-.01	.02	.01	-.09*
Predictor Variables									
1. Perception of Equity	2.97	.79	--	.04	-.11**	-.01	-.02	.05	-.22**
2. Other Jobs	.73	.45	-.04	--	-.23**	-.04	-.10**	.23**	.04
3. Hours on Tasks	16.38	10.38	-.11**	-.23**	--	.04	-.02	-.06	.04
4. Male	1.47	.50	-.01	-.04	.04	--	-.06	-.19**	.04
5. Age	47.07	10.70	-.02	-.10**	-.02	-.06	--	.11**	-.06
6. Income-Log	10.25	.81	.05	.23**	-.06	-.19**	.11**	--	-.08*
7. VOC	.50	.50	.22**	.04	.04	.04	-.06	-.08*	--

*p < .05. **p < .01.

Table A.6

Involuntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Rewards and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATRewards	2.34	.88	.57**	.04	-.10**	-.02	.01	.13**	-.20**
Predictor Variables									
1. Perception of Equity	2.97	.79	--	.04	-.11**	-.01	-.02	.05	-.22**
2. Other Jobs	.73	.45	-.04	--	-.23**	-.04	-.10**	.23**	.04
3. Hours on Tasks	16.38	10.38	-.11**	-.23**	--	.04	-.02	-.06	.04
4. Male	1.47	.50	-.01	-.04	.04	--	-.06	-.19**	.04
5. Age	47.07	10.70	-.02	-.10**	-.02	-.06	--	.11**	-.06
6. Income-Log	10.25	.81	.05	.23**	-.06	-.19**	.11**	--	-.08*
7. VOC	.50	.50	.22**	.04	.04	.04	-.06	-.08*	--

*p < .05. **p < .01.

Table A.7

Involuntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Workload and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATWorkload	3.24	.76	.39**	.11**	-.15**	-.08*	.04	.08*	-.12**
Predictor Variables									
1. Perception of Equity	2.97	.79	--	.04	-.11**	-.01	-.02	.05	-.22**
2. Other Jobs	.73	.45	-.04	--	-.23**	-.04	-.10**	.23**	.04
3. Hours on Tasks	16.38	10.38	-.11**	-.23**	--	.04	-.02	-.06	.04
4. Male	1.47	.50	-.01	-.04	.04	--	-.06	-.19**	.04
5. Age	47.07	10.70	-.02	-.10**	-.02	-.06	--	.11**	-.06
6. Income-Log	10.25	.81	.05	.23**	-.06	-.19**	.11**	--	-.08*
7. VOC	.50	.50	.22**	.04	.04	.04	-.06	-.08*	--

*p < .05. **p < .01.

Table A.8

Involuntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Authority to Make Decisions and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATAuth	3.61	.61	.27**	.01	-. 03	-.08	.00	.07*	-.03
Predictor Variables									
1. Perception of Equity	2.97	.79	--	.04	-.11**	-.01	-.02	.05	-.22**
2. Other Jobs	.73	.45	.04	--	-.23**	-.04	-.10**	.23**	.04
3. Hours on Tasks	16.38	10.38	-.11**	-.23**	--	.04	-.02	-.06	.04
4. Male	1.47	.50	-.01	-.04	.04	--	-.06	-.19**	.04*
5. Age	47.07	10.70	-.02	-.10**	.02	-.06	--	.11**	.06
6. Income-Log	10.25	.81	.05	.23**	-.06	-.19**	.11**	--	-.08
7. VOC	.50	.50	-.22**	.04	.04	.04*	-.06	-.08*	--

*p < .05. **p < .01.

Table A.9

Involuntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Job Overall and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATJobOv	3.31	.66	.57**	-.03	-.09*	.03	.02	.02	-.15**
Predictor Variables									
1. Perception of Equity	2.97	.79	--	.04	-.11**	-.01	-.02	.05	-.22**
2. Other Jobs	.73	.45	-.04	--	-.23**	-.04	-.10**	.23**	.04
3. Hours on Tasks	16.38	10.38	-.11**	-.23**	--	.04	-.02	-.06	.04
4. Male	1.47	.50	-.01	-.04	.04	--	-.06	-.19**	.04
5. Age	47.07	10.70	-.02	-.10**	-.02	-.06	--	.11**	-.06
6. Income-Log	10.25	.81	.05	.23**	-.06	-.19**	.11**	--	-.08*
7. VOC	.50	.50	.22**	.04	.04	.04	-.06	-.08*	--

*p < .05. **p < .01.

Table A.10

Voluntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Development and Resources and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATDevRe	3.39	.54	.49**	-.02	-.15**	.02	.07*	.02	-.11**
Predictor Variables									
1. Perception of Equity	3.33	.62	--	.04	-.11**	-.03	-.05	.00	-.11**
2. Other Jobs	.84	.61	-.04	--	-.23**	-.08*	-.32**	.18**	-.06
3. Hours on Tasks	12.01	7.54	-.11**	-.23**	--	.07*	.07*	-.14**	.04
4. Male	1.46	.50	-.03	-.08*	.07*	--	-.08*	-.30**	.09*
5. Age	49.93	11.60	-.05	-.32**	.07*	-.08*	--	.09**	.11**
6. Income-Log	10.51	.91	.00	.18**	-.14**	-.30**	.09**	--	-.07*
7. VOC	.35	.48	-.11**	-.06	.04	.09*	.11**	-.07*	--

*p < .05. **p < .01.

Table A.11

Voluntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Rewards and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATRewar	2.88	.76	.46**	.01	-.14**	-.09*	.02	.09*	-.16**
Predictor Variables									
1. Perception of Equity	3.33	.62	--	.04	-.11**	-.03	-.05	.00	-.11**
2. Other Jobs	.84	.61	-.04	--	-.23**	-.08*	-.32**	.18**	-.06
3. Hours on Tasks	12.01	7.54	-.11**	-.23**	--	.07*	.07*	-.14**	.04
4. Male	1.46	.50	-.03	-.08*	.07*	--	-.08*	-.30**	.09*
5. Age	49.93	11.60	-.05	-.32**	.07*	-.08*	--	.09**	.11**
6. Income-Log	10.51	.91	.00	.18**	-.14**	-.30**	.09**	--	-.07*
7. VOC	.35	.48	-.11**	-.06	.04	.09*	.11**	-.07*	--

*p < .05. **p < .01.

Table A.13

Voluntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Workload and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATWorkL	3.63	.58	.33**	-.01	-.16**	-.01	.09**	.01	-.02
Predictor Variables									
1. Perception of Equity	3.33	.62	--	.04	-.11**	-.03	-.05	.00	-.11**
2. Other Jobs	.84	.61	-.04	--	-.23**	-.08*	-.32**	.18**	-.06
3. Hours on Tasks	12.01	7.54	-.11**	-.23**	--	.07*	.07*	-.14**	.04
4. Male	1.46	.50	-.03	-.08*	.07*	--	-.08*	-.30**	.09*
5. Age	49.93	11.60	-.05	-.32**	.07*	-.08*	--	.09**	.11**
6. Income-Log	10.51	.91	.00	.18**	-.14**	-.30**	.09**	--	-.07*
7. VOC	.35	.48	-.11**	-.06	.04	.09*	.11**	-.07*	--

*p < .05. **p < .01.

Table A.14

Voluntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Authority to make decisions and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATAuth	3.73	.52	.27**	.03	-.08*	-.01	-.01	.02	-.03
Predictor Variables									
1. Perception of Equity	3.33	.62	--	.04	-.11**	-.03	-.05	.00*	-.11**
2. Other Jobs	.84	.61	-.04	--	-.23**	-.08*	-.32**	.18**	-.06
3. Hours on Tasks	12.01	7.54	-.11**	-.23**	--	.07*	.07*	-.14**	.04
4. Male	1.46	.50	-.03	-.08*	.07*	--	-.08*	-.30**	.09*
5. Age	49.93	11.60	-.05	-.32**	.07*	-.08*	--	.09**	.11**
6. Income-Log	10.51	.91	.00	.18**	-.14**	-.30**	.09**	--	-.07*
7. VOC	.35	.48	-.11**	-.06	.04	.09*	.11**	-.07*	--

*p < .05. **p < .01.

Table A.15

Voluntary Part-time Faculty – Means, Standard Deviations, and Intercorrelations for Satisfaction with Job Overall and Predictor Variables

Variable	M	SD	1	2	3	4	5	6	7
SATJobOv	3.61	.57	.53**	-.05	-.10**	-.01	.08*	.04	-.02
Predictor Variables									
1. Perception of Equity	3.33	.62	--	.04	-.11**	-.03	-.05	.00	-.11**
2. Other Jobs	.84	.61	-.04	--	-.23**	-.08*	-.32**	.18**	-.06
3. Hours on Tasks	12.01	7.54	-.11**	-.23**	--	.07*	.07*	-.14**	.04
4. Male	1.46	.50	-.03	-.08*	.07*	--	-.08*	-.30**	.09*
5. Age	49.93	11.60	-.05	-.32**	.07*	-.08*	--	.09**	.11**
6. Income-Log	10.51	.91	.00	.18**	-.14**	-.30**	.09**	--	-.07*
7. VOC	.35	.48	-.11**	-.06	.04	.09*	.11**	-.07*	--

*p < .05. **p < .0

VITA

The author was born in Lafayette, Louisiana. She obtained her Bachelor's degree in business administration with a major in Accounting from the University of Southwestern Louisiana in 1979. In 1992 she obtained her Master's in business administration from the University of Southwestern Louisiana. She became a member of the business department faculty at the Louisiana Technical College, Lafayette campus in fall 2003. In fall 2004, she joined the University of New Orleans educational administration graduate program to pursue a Ph.D. in higher education administration with a concentration in community and technical colleges.