ONLINE ADJUNCT FACULTY: UNDERSTANDING THE SOURCES OF SATISFACTION AND DISSATISFACION - A STRATEGIC IMPERATIVE

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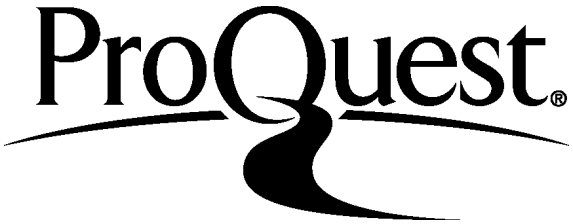

Abstract

This purpose of this study is to provide a baseline metric or benchmark of the level of job satisfaction among adjunct faculty teaching in either the online modality or in the traditional classroom setting at an institution of higher learning. It provides insight into the forces driving overall job satisfaction and its counterparts in Frederick Herzberg's terminology: motivation and dissatisfaction. Incorporating Michael Porter's model of five forces into the discussion, adjunct faculty in many institutions and certainly in the University under study become the suppliers of a key input and gain in power as their numbers increase. Those suppliers gain additional power as they become trained in the online modality. Online adjunct faculty are no longer limited by commuting distance in considering employment opportunities. As these opportunities become obvious the level of job satisfaction becomes a key input to a faculty member's decision to leave or stay. Based upon survey data, this research identifies those variables most likely to affect job satisfaction or dissatisfaction thereby providing the institution with the opportunity to reinforce or alter current practices and eventually, using current academic terminology, close the loop.

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Dedication

For Kathy, Karen, & Greg. It's that Simple

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CHAPTER ONE

INTRODUCTION

Faculty satisfaction in higher education has been an area that has been researched for many years by many researchers (Ambrose, Huston, & Norman, 2005; Iiacqua, Schumacher, & Li, 1995; Moxley, 1977; Seifert & Umbach, 2008). These studies concerned themselves with full-time faculty teaching in the traditional classroom or face-to-face environment. More recently, with the growth of distance education (hereafter referred to as online education or online learning), full-time faculty satisfaction in the online environment has been studied (Bolliger & Wasilik, 2009; Shea, 2007). Additionally, but less often, satisfaction among adjunct or part-time faculty has been researched (Hoyt, Howell, & Eggett, 2007), with fewer studies still limiting their scope to online adjunct faculty (Satterlee, 2008).

Consistent among many of these studies has been the motivation to learn about job satisfaction and in turn address those factors pertaining to faculty dissatisfaction thereby improving the classroom experience for both the faculty member and the student. The goal therefore in these studies is internal to the classroom: increase instructor satisfaction that hopefully will, in turn, contribute to a more positive learning experience for the student (DeShields, Kara, & Kaynak, 2005).

Research has also addressed faculty satisfaction as a goal in itself (American Federation of Teachers, 2010), often breaking faculty variables into demographic subsets of age, gender, experience (Shea, 2007); extrinsic variables such as compensation, working conditions, the work itself, university administration, university values (Bolliger

& Wasilik, 2009; Green, Alejandro, & Brown, 2009), learning styles (Little, 2009), and intrinsic variables of self-worth, and feelings of accomplishment (Moxley, 1977).

Admirable as these reasons are for studying faculty satisfaction, from a business or management perspective, or more exactly, from a strategic viewpoint, the study of faculty satisfaction may well be critical for the institution, especially in one developing area within higher education: the retention of trained and experienced adjunct faculty instructing in online courses. As universities rely more on the utilization of adjunct faculty and as the use of online instruction becomes more central to a university's attainment of enrollment growth, or in merely maintaining a given student population or market share, the retention of experienced adjunct faculty (referred to later, utilizing Michael Porter's terminology, as the suppliers of product (Porter, 1980), may well be of significant strategic import.

The possible strategic importance of adjunct faculty teaching online courses hinges upon two growth statistics: the growth in the use of adjunct faculty and the growth in online courses.

According to the American Federation of Teachers (AFT) Higher Education (2007), from 1997 to 2007 adjunct faculty as a percentage of all faculty grew from 34.1% to 36.9%, whereas full-time tenured and non-tenured faculty declined from 37.3% in 1997 to 32.2% in 2007 (the remaining faculty positions, 20.9% in 2007, were graduate assistants). As expected, public, two-year institutions utilized a higher percentage of adjunct faculty (68.8%) in 2007 than four-year institutions (the range of the percentage of adjunct faculty varied widely depending on the classification of a four-year school. Public research/doctoral granting institutions utilized the lowest percentage of adjunct

faculty in 2007 (15.8%), although they reported 41.0% utilization of graduate assistants, whereas private, not-for-profit, comprehensive universities utilized 52.2% adjunct faculty). The use of adjunct faculty may also be more prevalent in lower-level courses. Harrington and Schibik (2001) studied 7,174 entering freshmen at a Midwestern university from 1997 to 2001 and found that between 73.1% and 80.9% had at least 75% of their first year courses taught by adjunct faculty (Harrington & Schibik, 2001).

The growth in online education as measured by the percentage increase in undergraduate students taking at least one online course between school years 2003/2004 and 2007/2008 was 44.44%. During school year 2007/2008, 4.3 million undergraduate students took at least one online course or 20.4% of the undergraduate population (U.S. Department of Education, 2011).

This enrollment growth has continued. During the fall of 2010, 6.1 million undergraduate students were reported as having taken at least one online course and online enrollment as a percentage of total enrollment was 31.3%, whereas eight years prior the enrollment total was just over 1.6 million students, or 9.6% of total enrollment (Allen & Seaman, 2011).

Online enrollment growth in the university studied for this report has similarly been remarkable. Starting in 2006/2007, online enrollment was just 860 student seats (out of a total of 58,075) or just 1.4% of undergraduate enrollment. By school year 2011/2012, online enrollment was 16,890, or 20.6% of total undergraduate enrollment. Perhaps more revealing in terms of the strategic impact of online enrollment to total enrollment growth, were the periods 2006/2007 to 2011/2012. During this time, 67.34% of total undergraduate enrollment growth was a function of online enrollment. Indeed,

during the school years 2008/2009 to 2010/2011, all enrollment growth can be attributed to online enrollments (D. Eggleston, personal communication, January 30, 2013).

Strategy, Porter, and This Study

Higher education is a business; be it for-profit or not-for-profit, it is still a business. Administration must be mindful of maintaining, or growing revenues and controlling, or minimizing expenses. Tuition is a major source of revenue for any institution of higher learning, but it plays a more critical role for the private, non-publically supported school – the focus of this paper. Tuition itself is a function primarily of costs – as costs rise, so too must tuition. Eventually, price elasticity of demand limits the ability of an institution to raise tuition beyond the critical point where an increase in tuition reduces, not increases, tuition revenue. Therefore, cost control must be of significant concern for university officials – the lower the costs – the lower any potential tuition increase need be.

As in most businesses, labor costs represent a significant budget line item in higher education, and this is where the increased use of adjunct faculty is itself significant. As Halcrow and Olsen (2008) stated:

> In these times of diminishing budgets, the primary reason for hiring adjuncts is economic. Simply put, it costs institutions much less for each adjunct they hire compared to a full-time faculty member, and/or they can hire more teachers for the same amount of money. (p. 2)

The accelerating use of online classes is not only an academic issue; it is an economic one as well. Simply stated, offering online classes frees the institution of the considerable brick and mortar infrastructure expenses. Offering online classes taught by

adjunct faculty reduces costs, freeing those dollars for other uses including holding the line on tuition increases. Certainly, there are other reasons, academic reasons, for employing adjunct faculty or offering online classes, nevertheless, the effect on the institution's cost structure is considerable and therefore strategic. As reported by Allen and Seaman (2011), in Babson College's survey of 2,500 colleges and universities within the United States, 65% of chief academic officers at these institutions reported that the use of online classes were "a critical component of their long-term strategy" (p. 4). Three years later, 2014, in a similar study by the same researchers, that percentage had grown to 70.8% (a record high) while the percentage of institutions reporting that online classes were not a critical element in the institution's long-term strategy had fallen to a record low of 8.6% (Allen & Seaman, 2015).

As has been stated, the university employed in this study has witnessed a significant increase in online classes offered during the past eight years. It is this growth of online classes that is most responsible for overall enrollment increases. Additionally, more than 90% of the total faculty are adjunct faculty and the adjunct faculty in the fall semester of 2015 taught 91% of all University courses (D. Eggleston, personal communication, November 23, 2015). For this university, a university that has growth as one of its strategic goals, the importance of the adjunct faculty can hardly be overstated.

Importance is one thing; strategic impact is another. Do faculty, and in this case, adjunct faculty, have strategic importance to the university? For this answer, we turn to the work of Michael Porter and his five-force model.

In 1980, Michael Porter of the Harvard Business School published *Competitive Strategy* in which he presented his model of five competitive forces that determine the long-term profitability of an industry and the organizations competing therein.

Porter's model is credited with bringing a systematic way to analyze strategy (Argyres & McGahan, 2002), and for setting "the standard for industry analysis (which) can complement strategic planning and thus contribute to a more comprehensive organizational strategy" (Martinez & Wolverton, 2009a, p. 2).

Often used in for profit industries (manufacturing, health care, retail, technology, etc.), his model is also applicable to higher education, witness the use in Ontario, Canada, where the five-force model was employed to strategically assess higher education for the entire Provence (Pringle & Huisman, 2011). Martinez and Wolverton (2009b) in their book, *Innovative Strategy Making in Higher Education*, use Porter's five-force model exclusively in their chapter on analyzing higher education from a strategy standpoint, and Hua (2011) relies on Porter in discussing market leadership among private institutions of higher education in Malaysia.

Over the 30 plus years since its original publication, the five-force model has come under some criticism. Grundy (2006) finds the model too rigid and difficult for management to apply, while Minzberg (2000) dismisses strategic planning and Porter's work altogether, favoring strategic thinking which he maintains leads to creative thinking. Nevertheless, the significant majority of management writing validates Porter's work and his five-force model in particular (Allio & Fahey, 2012; Ketels, 2006; Magretta, 2012; Pendse, 2011).

According to Porter (1998), "the goal of competitive strategy for a business unit in an industry is to find a position in the industry where the company can best defend itself against these competitive forces or can influence them in its favor" (p. 4).

Porter identifies these five forces as:

- The threat of entry: The likelihood that new competitors will enter the industry within the geographic area of concern, thereby increasing the supply of a product or service. An increase in supply, all other factors held constant, creates downward pressure on price and therefor profitability.
- The rivalry among current competitors. This often results in competition based upon price, yet other tactics may present themselves including improved customer service, new products or services, increased use of advertising, etc.
- The existence of substitute products or services. Here the product or service is not the same but serves the same basic function. If one assumes that the function of a college degree is employment in a position of acceptable compensation, other means of obtaining suitable employment – the military or a trade school, for example – would serve as a viable substitute. In this case, the existence of a substitute serves a similar function in Porter's model as the threat of entry – an increase in supply that restricts price flexibility.
- The power of buyers of the product or service. While individual buyers of small amounts of the product or service have limited power

over the servicing organization, collectively they may produce considerable leverage particularly if the product or service is weakly differentiated and/or the cost to the buyer of switching from one company to another is relatively slight.

- The bargaining power of suppliers. While this power is often discussed in manufacturing or retail operations where the suppliers provide hard or soft goods, "labor must be recognized as a supplier as well, and one that exerts great power in many industries". (Porter 1998, p. 28).

Figure 1. Porter's Model of Five Forces. From "The Five Competitive Forces that Shape Strategy" by Michael Porter, 2008, Harvard Business Review, 86, p. 80.

In this paper, it is the suppliers of labor, or more specifically, the adjunct faculty teaching online courses, that is of concern, a strategic concern.

Statement of the Problem

One of the benefits of online learning often cited in the literature is geographic: students (the buyers) can take courses from anywhere in the country, and in fact, beyond a country's borders. Not cited in the literature is that this benefit extends to the online faculty (the suppliers) as well.

Prior to the advent of online classes, adjunct faculty were limited in their employment options to those institutions within a reasonable commuting distance. Even adjunct faculty residing in large metropolitan areas still had relatively few institutions in which they could petition for employment. With online classes, that paradigm has changed. No longer are adjunct faculty limited by geographic constraints. Indeed, the institution under study has online adjunct faculty living thousands of miles from the main campus.

The problem this creates for this institution, or any higher education institution that relies upon online enrollment, is that one of the main suppliers of their product, experienced online adjunct faculty, are free to change employers for any reason. A decline in job satisfaction has been shown increase employee turnover (Chen, Ployhart, Thomas, Anderson, & Bliese, 2011). Hoyt's recent research confirms the link between job satisfaction and a faculty member's intent to leave an institution (Hoyt, 2012). If an online instructor's satisfaction teaching at institution "X" declines, there is little incentive for that instructor not to pursue employment elsewhere, and unfortunately, for institution "X", there are hundreds of institution "Y"s for that experienced adjunct faculty member

to consider. Not only is the replacement of experienced adjunct faculty costly (and this would include hiring and training expenditures), loss of faculty affects the number of courses that can be offered and therefore an additional loss: tuition dollars (Betts & Sikorski, 2008).

If growth is an element of an institution's strategic plan, loss of experienced online adjunct faculty may well be detrimental to that plan.

Significance of the Study

The research conducted for this study provides a base line metric or benchmark of the level of job satisfaction for an institution of higher learning. The various variables measured and analyzed provide valuable insight into the forces driving the overall assessment of job satisfaction and its counterparts in Frederick Herzberg's terminology: motivation and dissatisfaction. Carefully considered, the knowledge gained from this study provides the institution with a means of reinforcing or altering current practices and at a later date resurveying the faculty in order to assess the outcomes of the changes implemented or the current practices improved upon. Simply stated: the reassessment provides the institution an opportunity, using current academic terminology, to close the loop, in other words, to act upon the data obtained from the study in order to improve a situation or process.

Most studies of faculty satisfaction in higher education, with the exception of those researching two-year schools, do not assess adjunct faculty satisfaction and fewer still look at adjunct faculty teaching in the growing area of online education. Even these are usually at research, tenure granting, institutions – such is not the case here as the institution forming this study is a private, non-tenure, teaching school. Additionally,

while many of the variables studied (gender, age, experience, etc.) appear in other research, this researcher found no study attempting to differentiate satisfaction levels between faculty teaching qualitative courses and those teaching quantitative courses as this research accomplished.

Enrollment growth for some schools or merely defending one's enrolment level at others, are strategic goals of significant import. With the growth of online courses, taught often by adjunct faculty, institutions employing distance education in their product marketing mix need to be fully cognizant of the factors affecting adjunct faculty satisfaction and therefore retention.

Research Questions

Research question number one. Is there a relationship between the overall level of job satisfaction and the following dependent variables: teaching modality (online compared to face-to-face); demographic and background variables (gender, experience [years teaching], college within the university; if a degree was granted by subject university)?

Hypothesis One

There is a relationship between job satisfactions among adjunct faculty and teaching modality.

Hypothesis One (Null)

There is no relationship between job satisfaction among adjunct faculty and teaching modality.

Hypothesis Two

There is a relationship between job satisfactions among adjunct faculty and gender.

Hypothesis Two (Null)

There is no relationship between job satisfaction among adjunct faculty and gender.

Hypothesis Three

There is a relationship between job satisfaction among adjunct faculty and teaching experience.

Hypothesis Three (Null)

There is no relationship between job satisfaction among adjunct faculty and teaching experience.

Hypothesis Four

There is a relationship between job satisfaction among adjunct faculty and the faculty's college within the university.

Hypothesis Four (Null)

There is no relationship between job satisfaction among adjunct faculty and the faculty's college within the university.

Hypothesis Five

There is a relationship between job satisfaction among adjunct faculty and whether or not the faculty member has a degree from the institution in the study.

Hypothesis Five (Null)

There is no relationship between job satisfaction among adjunct faculty and whether or not the faculty member has a degree from the institution in the study.

Hypothesis Six

There is a relationship between job satisfaction among adjunct faculty and the age of the faculty member.

Hypothesis Six (Null)

There is no relationship between job satisfaction among adjunct faculty and the age of the faculty member.

Hypothesis Seven

There is a relationship between job satisfaction among adjunct faculty and the number of courses taught.

Hypothesis Seven (Null)

There is no relationship between job satisfaction among adjunct faculty and the number of courses taught.

Research question number two. To what extent do intrinsic (motivation) or extrinsic (hygiene) variables as categorized by Herzberg affect job satisfaction of online adjunct faculty?

Hypothesis One

Intrinsic and extrinsic variables have a significant effect on the overall level of job satisfaction of online adjunct faculty.

Hypothesis One (Null)

Intrinsic and extrinsic variables do not have a significant effect on the overall level of job satisfaction of online adjunct faculty.

Research question number three. To what extent does a significant difference exist in: overall job satisfaction, perceived workload, preparation time, concern for student cheating, and perceived student skills, between online adjunct faculty teaching qualitative courses and those teaching quantitative courses?

Hypothesis One

The type of course taught (quantitative or qualitative) affects the adjunct faculty member's job satisfaction.

Hypothesis One (Null)

The type of course taught (quantitative or qualitative) has no effect on the adjunct faculty member's job satisfaction.

Hypothesis Two

The type of course taught (quantitative or qualitative) affects the online adjunct faculty member's perceived workload.

Hypothesis Two (Null)

The type of course taught (quantitative or qualitative) has no effect on the online adjunct faculty member's perceived workload.

Hypothesis Three

The type of course taught (quantitative or qualitative) affects the online adjunct faculty member's perceived preparation time.

Hypothesis Three (Null)

The type of course taught (quantitative or qualitative) has no effect on the online adjunct faculty member's perceived preparation time.

Hypothesis Four

The type of course taught (quantitative or qualitative) affects the online adjunct faculty member's concern for student cheating.

Hypothesis Four (Null)

The type of course taught (quantitative or qualitative) has no effect on the online adjunct faculty member's concern for student cheating.

Hypothesis Five

The type of course taught (quantitative or qualitative) affects the adjunct faculty member's perceived student skills.

Hypothesis Five (Null)

The type of course taught (quantitative or qualitative) has no effect on the adjunct faculty member's perceived student skills.

Definition of Terms

Adjunct Faculty: non-full time faculty sometimes referred to as part-time or temporary faculty.

Adjunct Faculty – active: adjunct faculty who have taught at least one course within the past four semesters (Fall 2014 to Fall 2015 inclusive).

Extrinsic variables: "company policy and administration, supervision, interpersonal relationships, working conditions, salary, and security" (Herzberg, 1987, p. 113).

Face-to-face class: traditional class where instruction takes place within the classroom

Hybrid class: combination of face-to-face and online class (sometimes referred to as blended classes). Typically, classroom hours are approximately half of the traditional class with the remaining instruction taking place online.

Intrinsic variables: "achievement, recognition for achievement, the work itself, responsibility" (p. 113)

Online class: those classes "in which 80% of the course content is delivered online" (Allen & Seaman, 2008, p. 7).

Summary

Employees, as suppliers of labor, represent one of the five critical forces of strategic importance for a service provider (Porter, 1980). In the case of higher education, these suppliers are faculty and according to national statistics, the nature of faculty is undergoing change with more institutions employing an increasing number of part time, or adjunct faculty (AFT, 2007).

Concurrent with this growth in the use of adjunct faculty is the growth of online classes. As of fall, 2010, 31.3% of undergraduate students had taken at least one online course, compared to less than 10% just eight years prior (Allen & Seaman, 2011). To an increasing extent, these online classes are being taught by adjunct faculty. As job satisfaction affects employee retention (Chen et al., 2011) maintaining or increasing job satisfaction of adjunct faculty (the suppliers of labor) in the growing online market should be of significant strategic import to universities, and most especially with those universities where enrollment growth is a stated strategic objective.

Adding to the stated challenge of maintaining or increasing adjunct faculty satisfaction is that with an increasing number of adjunct faculty, those teaching online, the old geographic rules no longer apply - those faculty members may teach at any school throughout the country. They are not limited, as non-online adjunct faculty are, to only consider part time teaching employment within driving distance of their homes. The power of this supplier group, the power to leave, has changed considerably. Institutions of higher learning dependent upon online adjunct faculty must be cognizant of this paradigm shift, and need to clearly understand the nature of job satisfaction pertaining to this supplier group.

CHAPTER TWO

REVIEW OF THE LITERATURE

The intent of this study is to ascertain the degree of job satisfaction or dissatisfaction among online, adjunct faculty utilizing, as a framework, Herzberg's two-factor model. This chapter looks to the published research that will provide insights into factors affecting the use of and the issues affecting this faculty. The research included peer-reviewed journal articles, books, dissertations, governmental reports, and professional publications.

Beginning with an overview of the historical and current use of part-time faculty and concerns/issues related to their use in higher education, this chapter moves into a similar discussion as to the utilization of online faculty, eventually merging the two as to the utilization of adjunct faculty in the online modality.

A discussion of studies related to faculty satisfaction or dissatisfaction and how those topics are related to faculty loyalty, or the faculty member's intent to leave an institution. This is followed by review of the use of Frederick Herzberg's two-factor model, incorporating Herzberg's work into that discussion.

Specific topics in online education are discussed, including the development of the modality, academic dishonesty, and employer perceptions.

The review concludes with topics that relate to the overall study to include demographic variables and the differences between teaching qualitative and quantitative courses an issue that could affect faculty satisfaction and a survey item within this study.

Adjunct Faculty

Growth - adjunct faculty. The use of adjunct faculty is certainly nothing new, but has continued to grow and has become widespread across the spectrum of higher education. In the fall of 1976, adjunct or part-time faculty comprised 31.4% of all faculty positions. By fall 2011, this percentage had increased to 51.4%. In terms of the number of individuals employed part-time within period, in 1976, 199,139 faculty were part-time, by 2011, this number had increased to 768,430. As a point of comparison, in 1976 full-time, tenured-track faculty comprised 35.9% of faculty positions (227,381 individuals), in 2011, 20.6% of all faculty were tenured-track (308,103 individuals) (Curtis, 2014, p. 5).

Dividing higher education institutions by type reveals the differences in the utilization of adjunct faculty (all data as of fall, 2011): doctoral and research universities employed 158,055 adjunct faculty, or 19.9% of their total, whereas, public two-year institutions employed 288,186 adjunct faculty which equaled 70.3% of their faculty. (It should be noted that Doctoral institutions also employed 314,407 graduate students or "TAs" which would represent 39.5% of their instructional staff while two-year schools employed none). Master's universities and private baccalaureate colleges were in the middle of these two extremes, employing 50.3% and 41.5% part time faculty respectively (Curtis, 2014, p. 8). At the university surveyed for this study, 93% of faculty are adjunct faculty (D. Eggleston, personal communication, September 17, 2014).

Compensation – adjunct faculty. A national survey of part-time faculty (10,331 respondents) conducted for the Coalition of the Academic Workforce in 2011, reported that 44% of part time faculty taught in the humanities (20.5% in professional areas including business); median pay per course was $2,700 with a reported range: $2,235 -

$3,400 (median pay for unionized adjunct faculty was $3,100). The study further divided median salary by modality reporting that those adjunct faculty teaching in the traditional classroom (often referred to as "face-to-face") earned more than online faculty ($2,850 compared to $2,250). Geographic region also affected salary with the North East paying the highest salary ($4,000), while the South East was the lowest ($2,100) and the mid-Atlantic falling between the two ($3,000). Length of service had little effect on compensation. The median salary for those who had taught for 30 terms was only $300 higher than those teaching fewer than three terms ($3,000 compared to $2,700). In terms of discipline taught, those teaching developmental courses received $2,074 (lowest in the survey, while those teaching engineering earned $4,000 per course (highest in the survey). 70.7% taught either one or two courses during the fall semester, 2011. 81.2% of adjunct faculty had taught three years or more, while 56.5% had taught for more than 5 years (Coalition of the Academic Workforce, 2012).

In a recent survey of adjunct faculty for school year 2014/2015, average adjunct faculty pay (self-reported) was $2,943 for a three credit course. This compensation varied rather widely by discipline with those teaching law receiving the highest average pay ($5,363) and those teaching general studies the lowest ($2,125). As the University studied for this paper employs a fairly substantial number of adjunct faculty teaching business courses, the average pay for that discipline was $2,864 ("Average Pay", 2015).

To place adjunct faculty salary in a comparative position with full-time, tenured track faculty, the Association of Governing Boards of Universities and Colleges report that adjunct faculty earn approximately 60% less than their full-time, tenured colleagues (Kezar & Maxey, 2013). Interestingly, fifteen years ago, Horton (2000) theorized that

this pay differential could eventually solve itself. Using the economist's theory of perfect competition, as institutions continue to hire additional adjunct faculty, eventually that faculty will become a commodity, "selling" for the same price regardless of payer, and that price will adjust (eventually) to the pay received for full-time faculty (Horton, 2000). Additionally, non-market forces, the forces of unionization, may force more equitable compensation. Whenever a substantial pay differential exists between two groups performing essentially the same function, the threat of unionization is possible. Indeed, the American Federation of Teachers maintain that it is good practice to eliminate large pay differences between adjunct and full-time faculty when both are members of the same union (American Federation of Teachers, 2002).

For the purpose of this research, the issue of compensation or salary is of prime interest as it is one of the central components of the hygiene factors in Herzberg's model, and constitutes an important extrinsic factor that may affect job satisfaction (research question 3). Studies have indicated that salary or compensation (salary plus benefits) do indeed affect satisfaction. Hoyt (2012) found in a study of university faculty, using Herzberg's model, that pay and benefits, out of seven hygiene factors measured, ranked sixth lowest, exceeded only by work environment (the lower the rating, the higher the dissatisfaction). Marston and Brunetti (2009) found similar results in a qualitative study of college faculty. Using 28 factors affecting job satisfaction when ranked high to low, they found that salary and benefits ranked 26th.

The National Study of Post-Secondary Faculty (NSOPF) conducted by the National Center of Educational Statistics for the U.S. Department of Education, found in their 1999 survey that although faculty, especially part-time faculty, were satisfied

overall with their positions, 45.2% of faculty were dissatisfied with their salary (National Education Association, 2002). The NSOPF survey, completed again – and for the last time – in 2004 revealed similar data in terms of faculty satisfaction with salary. In this 2004 report, 37.5% of full-time and 35.0% of part time faculty expressed dissatisfaction with salary. This compares with only 12.5% of full-time and 8.6% of part –time faculty expressing overall job dissatisfaction (National Center for Education Statistics, 2004).

Bozeman and Gaughan (2011) surveyed 1,794 faculty and found that the "determinants of job satisfaction fall into three major categories… demographic characteristics, colleague interactions, and extrinsic pay motivations" (p. 175) and that to their question as to whether or not respondents felt that they were "paid what I am worth", the researchers concluded "the perception of being paid what one is worth predicts job satisfaction" (p. 176). This last point, the relationship between job satisfaction and being paid what one feels one is worth, could be particularly troubling for university administration, considering, as has been previously noted, part-time, or adjunct faculty, are paid considerable less than their full-time counterparts for performing essentially similar tasks.

Utilization - adjunct faculty. Iadevaia (1991), in a survey of Department Chairs at Pima College, listed the following advantages of using adjunct faculty (in order of importance): flexibility (in scheduling courses), diversity, expertise, quality of instruction, caring instructors, financial savings, and an applicant pool for full-time faculty. Hugh Thompson (1984), Chancellor of Indiana University, concluded that adjunct faculty add versatility to the institution by allowing the institution to offer classes that might not otherwise be offered, free funds (as the use of adjunct faculty is less

expensive than full-time faculty) for the development of new programs, and enriches the class by the real world experience the adjunct faculty member can provide. On the other hand, there is some evidence that a student's grade point average may also be "enriched" by taking classes from adjunct faculty. Sonner's (2000) research of 7,610 university grades found a slight (adjunct faculty GPA = 2.8; full-time faculty GPA = 2.6) but significant ($p < 0.01$) difference.

Schibik and Harrington (2004) utilize the business model of outsourcing to relate the advantages of adjunct faculty. They state that the top five reasons why business organizations outsource are the same reasons institutions of higher learning utilize adjunct faculty:

- reduce and control operating costs
- Improve company focus
- Gain access to world-class capabilities
- Free internal resources for alternative uses
- Gain access to resources not internally available. (p. 396)

They continue their business analysis of the use of adjunct faculty stating,

> Outsourcing is thought to allow the firm the flexibility to adjust the production process at minimal cost and within a very short period of time. In higher education, the use of part-time academic staff allows deans and department chairpersons that same level of flexibility. Part-time teachers can be added quickly and at a low cost… to adjust to unanticipated increases in course demands. (p. 396)

Cox and Leatherman (2000) paint a considerable darker picture of the use of part-time faculty noting that they receive less pay and benefits that their full-time counterparts and should an adjunct faculty member teach four courses per term, their compensation "put them on a par with porters and fast-food workers" (p. 2). They also quote Richard Moser, a representative of the American Association of University Professors, who stated in referencing part-time faculty compensation that administrations "have turned away from the pursuit of justice and instead set up the sweatshops of the future for the greedy to imitate" (p. 1).

Gerhart (2004) maintains that the use of adjunct faculty benefits the institution enormously as they enable the institutions to hold down class sizes while simultaneously increasing enrollment, yet have the added benefit of being able to be let go if they do not perform well, something that is more difficult with full-time, tenured faculty. Horton (2000), utilizing microeconomic analysis, states that since adjunct faculty provide the same service as traditional faculty but at a lower cost, or economically speaking since "the marginal product of nontraditional (adjunct) faculty may be considered to be higher than the marginal product of traditional faculty, universities are certainly capable of increasing the pay of their part time faculty" (p. 110).

Problematically, certain costs may well increase with adjunct faculty. Schibik and Harrington (2004) list four costs associated with part-time faculty: transaction (search, recruitment, and hiring), coordination, monitoring, and control. Indeed, in a survey of 167 department heads, administrators who favored the use of adjunct faculty, nevertheless complained "they were drowning in the paperwork associated with hiring and maintaining adjuncts" (Ziegler & Reiff, 2006, p. 262).

The concern for the students being taught by adjunct faculty – concern for both the quality of instruction and the student's evaluation of adjunct faculty – has been widely studied. In most cases, researchers find no difference in student success rates both in terms of academic outcomes or student evaluations of faculty. Iadevaia (1991) studied students in science courses for a period of five years and found no difference between student success (defined as receiving a grade of C or better) taught by adjunct faculty compared to those taught by full-time faculty (accepted the null hypothesis at $p < 0.05$). Ghaffari-Samai found no significant differences in writing achievement (mean course grades) or student evaluation of faculty (1994). Hellman (1998) reported that there were no significant differences between adjunct and full-time faculty on student evaluations, a result replicated ten years later by Landrum (accepted null hypothesis at $p < 0.01$) (2009).

The research did discuss, however, specific instances that justify a concern over the significant use of adjunct faculty. Harrington and Schibik studied retention rates of 7,174 freshmen at a Midwestern university. Their null hypothesis was that there would be no difference in retention rates (rate of students returning for their second semester) for freshmen who were taught by either full-time or adjunct faculty. The null was rejected at the 0.01 level of significance.

> Furthermore, the Pearson Correlation coefficients reveal that there is a negative and significant relationship between exposure and retention. Higher levels of exposure to part-time faculty in a student's first semester in college lower the retention rates in the second semester. (Harrington & Schibik, 2001, p. 11)

Cox and Leatherman (2000) report that students often have difficulty contacting adjunct faculty as they are often not in the institution's faculty directory and many do not have office space at the institution.

Eagan and Jaeger studied 24,865 students at 107 California community colleges over a five year period to ascertain if there was a negative relationship between a student's exposure to adjunct faculty and the student's eventual transfer to a four-year institution. They found that for every 10% increase in a student's instruction by a part-time faculty member, there was a 2% reduction in that student's likeliness to transfer. Additionally, for those students who had all their credits from a part-time faculty member, those students were 20% less likely to transfer than those students who had all their credits from full-time faculty (Eagan & Jaeger, 2009).

Landrum (2009) studied 249 students at a four-year institution to see if there were significant differences between grades awarded by full-time as compared to part-time faculty, and also studied if there were differences between student evaluations of faculty. While adjunct faculty reported slightly higher GPAs than full-time faculty (2.86 compared to 2.71) this result was not statistically significant. Nor was the reported differences in student evaluations of adjunct faculty compared to full-time faculty.

Schmidt (2012), discussing the view of an adjunct instructor at Cape Cod Community College, points out that adjunct faculty often are not paid for and therefore do not hold routine office hours nor are present to advise students resulting in different levels of student support depending on the classification of the student's instructor. "We want to be providing the full-range of support and services for all of our students, not just those who luck out and have full-time faculty members" (Schmidt, 2012, p. 4).

Mueller, Mandernach, and Sanderson (2013), conversely, in a study of 396 undergraduate section of a university foundations course taught in a seven week online asynchronous modality by both full-time and adjunct faculty, found that students in the sections taught by full-time faculty were more likely to complete the course, were less likely to withdraw, received higher mean course grades, and reported higher levels of course satisfaction than courses taught by adjunct faculty.

The use of adjunct faculty has raised concerns from an ethical perspective. Todd (2004) has postulated the use of adjunct faculty demeans the profession, creates job uncertainty, and results in inequities in compensation, asking if the resultant cost savings sacrifices "the dignity of our teaching colleagues" (p. 19). Seibert's ethical concern is that the use of adjunct faculty is unfair as both the adjunct and full-time faculty members perform jobs of equal value to the institution, yet the adjunct faculty member is paid less (Seibert, 1996). Similar ethical arguments pertaining to the unequal compensation received by adjunct faculty have been raised by the American Federation of Teachers (2002) and K. Holler (2006) writing in the Chronicle of Higher Education.

Job Satisfaction in Higher Education

The topic of job satisfaction has fascinated researchers for more than eighty years. Indeed, Kalleberg recounted in his 1974 study that since 1930 more than 2,000 studies concerning job satisfaction had been published (Kalleberg, 1974). Today, some forty years later, one can easily assume that the total published studies on job satisfaction has grown considerably.

The area of higher education has not been divorced from such studies. The area of job satisfaction and its related topic of motivation have been well researched both in

peer reviewed journals (Hoyt et al., 2008; Mangi, Soomro, Ghumro, Abidi, & Jalbani, 2011; Marston & Brunetti, 2009; Saglam, 2007; Smerek & Peterson, 2007; Spivey, Chisholm-Burns, Murphy, Rice, & Morelli, 2009; Waltman, Bergom, Hollenshead, Miller, & August, 2012), and dissertations (Heilman, 2007; Lewis, 2009; McLean, 2005; Ng, 2005; Satterlee, 2008; Ward, 2007). The type of higher education institution varies from two year community colleges (Rosser & Townsend, 2006), four-year universities with either tenured or non-tenured faculty (Bozeman & Gaughan, 2011), to continuing education programs (Hoyt et al., 2007). While those studied historically had been full-time faculty, more recently the satisfaction of adjunct faculty (Hoyt et al., 2008) has been researched, including those teaching online (Bolliger & Wasilik, 2009; Green et al., 2009).

Various approaches have been taken by researchers studying job satisfaction in higher education to include qualitative studies (mostly interviews), short quantitative surveys (for example the eight question job satisfaction portion of the National Study of Postsecondary Faculty conducted periodically by the U. S. Department of Education - the survey was discontinued in 2004) (U. S. Department of Education, 2004), to longer, Likert-scale instruments (Bollinger's 28 question survey, 2008, or Hoyt's 36 question survey, 2007). While one finds different approaches in these studies, the work of Frederick Herzberg has been cited often and is the theoretical approach utilized in this study.

Herzberg's Two Factor Model

This section first discusses the development and basics of Frederick Herzberg's two factor (motivator/hygiene) theory, reviews the literature that is supportive or critical of the model, and examines the use of the model in studies of job satisfaction with particular emphasis on those studies involving higher education.

Herzberg theory was the result of his own dissatisfaction that grew out of his literature review while conducting research to answer the question, "what do workers want from their jobs" (Herzberg, 1959, p. xii). Unfortunately, what he found was disturbing and surprising. After reviewing 155 studies conducted between 1920 and 1954, he concluded that the information was contradictory. Still, 15 studies, that combined included 28,000 employees, intrigued him.

> There appeared to be some difference in the primacy of factors, depending upon whether the investigator was looking for things that the worked liked or disliked about their jobs. The concept that there might be some factors that were 'satisfiers' and others that were 'dissatisfiers' was suggested to me by this finding. (p. xii)

Developing his own study (after pilot testing it twice), involving 203 subjects, Herzberg utilized a critical incident method – a qualitative method that asked each subject to recall a time when they were either extremely satisfied or dissatisfied with their job. Each subject was then asked to rate the strength of their feelings, utilizing a 21 point rating scale, for each incident. From these results, Herzberg developed two sets of factors, one he maintained led to satisfaction (achievement, recognition, the work itself, responsibility, and advancement) and a second set that affected dissatisfaction (company

policy/administration, supervision, salary, interpersonal relations and working conditions) (p. 81).

In brief, Herzberg maintains that the factors that lead to satisfaction are those connected to what the worker does (on the job), whereas those factors that lead to dissatisfaction relate to the situation or the environment in which the worker, works (Herzberg, 1966/1973).

Herzberg's (1959) own definitions of his factors are important to one's overall understanding of his theory – listed in the order mentioned above:

- Achievement: worker stories of success that included jobs completed, "solutions to problems, and vindication and seeing the results of ones work" (p. 214).
- Recognition: two types of recognition are included: verbal praise by a supervisor, client, co-worker or an event – not accompanied by verbal recognition - but felt by the worker to be a source of recognition (a raise or award) (p. 213).
- The work itself: the act of doing the job or task. The feelings may be either positive or negative. The tasks "can be routine or varied, creative or stultifying, overly easy or overly difficult. The duties … can include an opportunity to carry through an entire operation or they can be restricted to one minute aspect of it" (p. 217).
- Responsibility: satisfaction form having the responsibility of one's own work or the work of others. However, it can also include a loss of satisfaction by not having the authority to carry out a task that he worker perceived needed to be accomplished (p. 216)

- Advancement: "This category was used only when there was an actual change in the person's status or position in the company" (p. 214).
- Company policy and administration: Herzberg divided this topic into two subsets: "adequacy or inadequacy of company organization and management" (p. 216. He included in this area a situation where the worker failed to have a clear line to authority. To whom he reported was either unclear, or there was more than one person in the worker's direct chain. The second part of this category involved personnel or human resource policies that were at best ineffectual, at worst harmful (p. 217).
- Supervision: terms associated with supervision included: competence or incompetence, fairness or unfairness, willingness or unwillingness to delegate, and a supervisor "who is perpetually nagging or critical" (p. 216).
- Salary: total compensation, pay and benefits (p. 215).
- Interpersonal relations: these can be either directly work related or social and include supervisors, co-workers, and subordinates.
- Working conditions: the amount of work to be done or the facilities in which the work would be accomplished (p. 217).

Over time, Herzberg expanded his studies to 1,685 subjects in 12 studies, and redefined his satisfaction terms from "satisfiers" to "motivators" and dissatisfactors" to "hygiene factors", eventually linking motivators to intrinsic factors, and hygiene factors to extrinsic factors, concluding "motivators were the primary cause of satisfaction, and hygiene factors the primary cause of unhappiness on the job" (Herzberg, 1987, p. 113). "Motivation says do this because it's very meaningful to me" (Herzberg, 1976, p. 307).

Herzberg's work has been the subject of various studies, some critical, many supportive. Ewen (1963) questions the absence of an overall measurement of job satisfaction and the lack of validity and reliability data in Herzberg's work. Kalleberg (1974), in an often cited article, is critical of methods Herzberg used to measure satisfaction (in this case in response to conflicting data regarding education's effect on job satisfaction), although it must be noted that Kalleberg erred in attributing to Herzberg that "the income that one receives from his job has been found to be positively related to his degree of job satisfaction" (1974, p. 317), as Herzberg clearly considers income or salary to be a hygiene factor, not an motivational element that leads to job satisfaction (Herzberg, 1987).

Ryan and Deci (2000), in developing their Self-Determination Theory (SDT), utilize both intrinsic and extrinsic variables in discussing motivation, similar to Herzberg, whereas Gappa, Austin, and Trice (2007) credit Herzberg's use of intrinsic factors, specifically achievement and recognition, in helping them model their theory that has as its core the intrinsic factor, respect.

Furnham, Eracleous, & Chamorro-Premuzic utilized Herzberg's two factor model in their study of personality and demographic factors affecting job satisfaction, finding that personality factors (utilizing a six-point Likert scale) account for 30% of the variance found in research on job satisfaction (2009). Bassett-Jones and Lloyd (2005) research had as its objective "whether or not Herzberg's contentious seminal studies on motivation at work still hold true today" concluding that "Herzberg's two-factor theory still has utility nearly 50 years after it was first developed" (p. 929).

Waltman et al. (2012) used Herzberg's two-factor theory as a framework for their study concerning job satisfaction of non-tenure track faculty employees in higher education institutions. Saglam (2007), who compared Herzberg's work to Maslow, noting that hygiene factors are similar to Maslow's low-level factors and motivators have a similarity to Maslow's higher-level factors, studied the effect of hygiene and motivation factors on academic staff, finding that salary, a hygiene factor, was the most important determining factor in dissatisfaction among academic staff.

Lefebvre's (2009) study (utilizing a five-point Likert scale) of faculty working in a virtual setting, "confirmed Herzberg's two-factor theory" (p. 146) as extrinsic factors (salary, supervision, administrative policies) were "especially dissatisfying" (p. 145), while intrinsic factors (achievement and recognition) resulted in increased job satisfaction.

Herzberg Factors – Frequency and Significance

In studying Herzberg's reporting of motivators and hygiene factors it is important to differentiate between the frequency of a reported factor and the significance of that factor in Herzberg's model. For example, in Figure 2 under Hygiene Factors, Company Policy and Administration has the longest bar in the graph – a measure of frequency (how often interviewees mentioned a particular factor). This reflects Herzberg's findings in many of his studies, that is, company policy and administration is the most frequently mentioned (highest frequency) of hygiene factors. The reason according to Herzberg is that this factor is the one most encountered by employees – typically daily. However, higher frequency does not equate with importance. To Herzberg, all hygiene factors are of equal importance, "all hygiene factors are potentially of equal importance, because you

cannot meaningfully differentiate one type of pain as greater than any other … this distinction between frequency and importance is one of the most misinterpreted aspects of Motivator-Hygiene Theory" (Herzberg, 1976, p. 70).

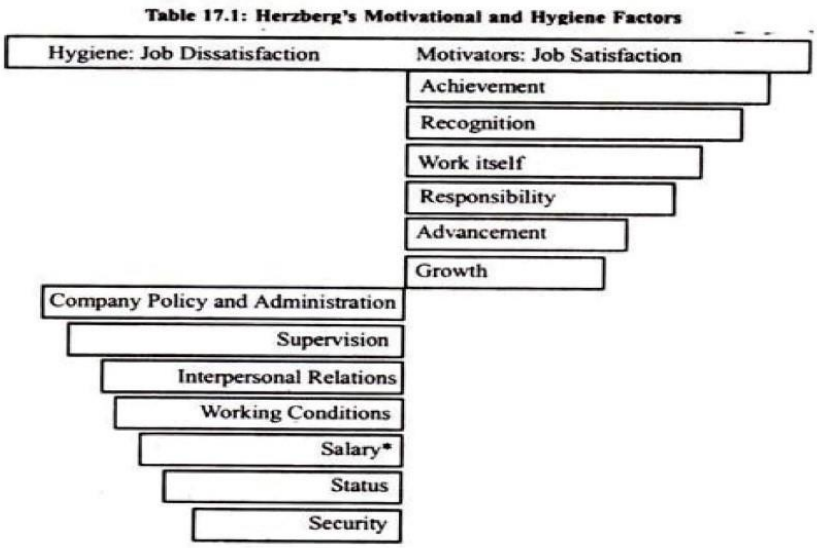

Figure 2. **Herzberg's Model** (Chand, 2015**).**

Company Policy and Administration – Higher Education

Kezar and Sam (2013) researched administrative policies in higher education that affected adjunct faculty finding that relatively few institutions had policies – out of 424 institutions (267 of which were two-year schools) only 75 were found to have actual

policies in place and many of those policies were found to be unevenly administered and a source of dissatisfaction among faculty. Policies pertaining to faulty orientation, funding for professional development, salary and benefits, while theoretically uniform within a university, were often found to vary by department (Kezar & Sam, 2013).

The American Leadership Forum's 2011 meeting of 19 higher education institutions investigated university policies pertaining to adjunct faculty workload. Policies and procedures were far from uniform. Workload issues varied significantly and were often found to be a function of state regulations pertaining to qualifications for healthcare and other benefits with one institution reporting that their state (not specified) limited adjunct faculty to no more than 12 credits per fiscal year. Some institutions had policies that discouraged adjunct faculty from teaching for other institutions, while others felt that teaching at multiple institutions was actually helpful in bringing a more diverse experience to the students (WCET [WICHE Cooperative for Educational Technologies], 2011).

While compensation issues are considered in Herzberg's model as a salary factor and not included in company policy and administration, other factors involving employment are included in the latter category. At Tuffs University, their 2014 labor agreement included job security for adjunct faculty: all adjunct faculty would be given a minimum of a one year contract while more experienced faculty would have a three year contract and be compensated for cancelled classes. Additionally adjunct faculty would be guaranteed an interview whenever a full-time position became available (Schneider, 2015).

Job Satisfaction and Intent to Leave

The linkage between job satisfaction and someone's intent to leave an organization (also referred to in the literature as "loyalty") has been well documented. Victor Vroom, in his 1964 classic book, *Work and Motivation*, maintains that:

> There is a consistent negative relationship between job satisfaction and the probability of resignation. This relationship appears when scores on job satisfaction are obtained from individuals and used to predict subsequent voluntary dropouts and when mean scores on job satisfaction for organizational units are correlated with turnover rates for these units. (1964, p. 186)

Rosser (2004) in a national study of 12,755 full-time faculty from 2 and 4 year institutions found not only an inverse relationship between job satisfaction and the intent to leave an institution, but a direct linkage between a faculty member's intent to leave and the actual turnover rate. Ryan, Healey, and Sullivan (2012) found three predictors to a faculty member's intent to leave: dissatisfaction with elements of their faculty position and work, lack of support from administration, and family stress.

Xu (2008) studied faculty turnover or intent to leave and concluded that the intent to leave was a function of overall job dissatisfaction. However, he further theorized that different aspects of dissatisfaction affected various clusters of academic disciplines differently. Xu divided 140 disciplines into eight related clusters or groups. For example, he grouped biochemistry, botany, genetics into his "hard life sciences", while disciplines such as accounting, marketing, communications, library science were grouped into the "soft, applied, non- life" cluster. He concluded that a faculty member's discipline affected aspects of satisfaction/dissatisfaction differently (interestingly a difference from

that found by Smart, whose 1990 study found no difference in faculty satisfaction using discipline as an independent variable). Faculty members working within the biochemistry cluster valued autonomy and a participation in decision making as sources of satisfaction, while faculty within the business administration cluster valued job security and a chance for advancement more highly. Gender differences, on the other hand, had little impact on intent to leave regardless of the discipline cluster studied. He concluded that administrators should take discipline differences into account when considering job satisfaction efforts, still overall the work environment, regardless of discipline, was the critical variable in determining a faculty member's intent to leave (Xu, 2008).

Rosser and Townsend (2006) studied a faculty member's intent to leave within the 2-year college environment. Dividing their independent variables into intrinsic and extrinsic components, similar to Herzberg, their findings

> Support the previous work of Herzberg in that those intrinsic factors or motivators relating to one's job content and the extrinsic factors of hygienes relating to the situation in which one works has a positive influence on faculty members' overall satisfaction, and subsequently on their intent to stay or leave academe or their institution. (Rosser & Townsend, 2006, p. 141)

However, demographics studied (gender, faculty rank, union membership, years of teaching) proved not to be significant in predicting one's intention to leave. The researchers' basic position may be summarized:

> Much turnover, however, is not inevitable but results from faculty dissatisfaction with their jobs – dissatisfaction that may be subject to correction if administrators

> and other faculty know what is causing it (e.g. unclear job expectations, heavy work assignments, low salaries). Understanding the factors that affect job satisfaction is critical if institutions are to retain faculty. (Rosser & Townsend, 2006, p. 124)

Generally absent in the literature on faculty satisfaction and loyalty or intent to leave, are studies involving adjunct faculty. One of the few studies that pertain to adjunct faculty was conducted by Hoyt. Utilizing Herzberg's hygiene/motivator model, Hoyt divided his independent variables in accordance with Herzberg's methodology. Hygiene factors included working conditions (facilities and quality of students), pay, administrative support, and autonomy. Motivators included the work itself, growth opportunities and recognition. Dependent variables were job satisfaction and loyalty (intent to leave). Hoyt's regression equation "predicting overall job satisfaction explained 57% of the variance and the equation for loyalty explained 45% of the variance" (2012, p. 138). The predictors of satisfaction (in rank order) were: pay, the work itself, the quality of students, administrative support, work schedule, facilities, and a heavy teaching load. Predictors of loyalty (again in rank order were: the work itself, pay, facilities, administrative support, and quality of students. Overall, factors associated with pay (salary itself, lack of consistent pay raises, and lower pay for courses with fewer students) were the most often cited hygiene factors, whereas, lack of recognition was the lowest rated of the motivation factors (Hoyt, 2012).

On-Line Education

On-line education defined. The classification or definition to what exactly one means when the term online or distance education is employed varies somewhat depending on the source and how inclusive that source is. Not surprisingly, the Congress

of the United States defines distance education fairly verbosely in Public Law 3151 entitled the Higher Education Opportunity Act (HEOA) of 1965, (as amended in 2008):

> Distance education in general except as otherwise provided, the term "distance education" means education that uses one or more of the technologies … to deliver instruction to students who are separated from the instructor; and to support regular and substantive interaction between the students and the instructor, synchronously or asynchronously … The technologies used may include the internet, one-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communication device; audio conferencing; or video cassettes, DVDs, and CD-Roms, if the cassettes, DVDs, and CD-Roms, are used in a course in conjunction with any of the technologies listed in clauses (i) through (iii). (Higher Education Opportunity Act 2008)

Whereas Allen briefly define online education as those classes "in which 80% of the course content is delivered online" (Allen & Seaman, 2008). Allen's definition therefore limits this modality as a function of the internet and it is this definition that is employed by Allen and Seaman, co-directors of the Babson Survey Research Group (Allen & Seaman, 2015), the leading research agency for online learning in the United States, and is the definition applicable to this research.

A word of caution is appropriate here. While in the United States the terms distance and online education are often used interchangeably, that is not the case in all countries, especially in Europe. For example, in Sweden the terms are quite distinct. There, distance education includes numerous delivery vehicles to include correspondence

courses and courses often referred to in the United States as hybrid or blended courses where the instruction is provided partly face-to-face and partly in a manner where the instructor and the student are not co-located. Online education in Sweden mean 100% internet based (Soderstrom, From, Lovqvist, & Tornquist, 2012).

Development of Online Education

Online education springs from the development of the first distance education programs in the United States – correspondence courses, specifically the Pitman Shorthand program to teach stenographic skills in 1852 (Casey, 2008). In 1873, Anna Eliot Ticknor established the Society to Encourage Studies at Home, a correspondence school for the education of women and enrolled more than 7,000 women in six disciplines (English, History, Science, French, German, and Art) (Caruth & Caruth, 2013). Mine safety courses followed (1890) with the first college-level course offered by the University of Chicago in 1892. The use of radio as a delivery vehicle for education began in 1921, and in 1934, the University of Iowa instituted courses via television. Coastline Community College in California in 1970 became the first institution of higher education to exist without a "brick and motor" presence. By 1972, colleges in Florida, California, and Texas were offering tele-courses. Satellite systems expanded the reach of televised courses to rural areas such as Alaska in 1980, but it was the development of computer technology in the 1990s – specifically the internet and utilized most notably by the University of Phoenix, that gave rise to the online/distance education modality one thinks about today (Casey, 2008).

Achieving Viable Scale of Online Offerings

Jacqueline Moloney and Burks Oakley (2010) researched successful institutions of higher learning engaged in online learning including The State University of New York (SUNY), the University of Illinois at Springfield, the University of Massachusetts, Lowell, Stevens Institute of Technology, the University of Washington, and Capella University and complied ten characteristics essential to the successful implementation of online education. These characteristics include: integration of online offerings into the organization's strategic plan, strong support from all levels of the institution, a core of non-traditional students, development of entire educational programs/degrees not merely individual courses, departments specializing in online course and program development, financial models that foster online expansion, and students treated as customers. However, they cite as the most important element in successful implementation of online programs as "the ability of the institution to scale its online faculty … their ability to increase the number of online sections offered by successfully recruiting and training qualified adjunct faculty. Without an ever-increasing pool of faculty, online enrollments will remain stagnant" (Moloney & Oakley, 2010, p. 11). Not stated, but clearly implied in Moloney & Oakley's article, would be the necessity of retaining those trained online adjunct faculty,

The topic of online education as an important element in a college or university's strategy has seen considerable growth during the past 12 years. In 2002, the percentage of university officials stating that online education was a critical element in that institution's strategy was 49%.; by fall 2014, that percentage had risen to 70.8% (Allen & Seaman, 2015).

Student enrollment in online classes by 2013 stood at 20,939,293 (a 1.2% growth from 2012), and was responsible for 73.7% of total enrollment growth in higher education. Interestingly, the size of the institution directly impacted the likelihood of the institution to offer online classes. While 95% of institutions with enrollment of at least 5,000 students offered online classes, only 47.5% of institutions with enrollments lower than 1,000 offered online courses (Allen & Seaman, 2015).

Academic Dishonesty

Few experiences in the educational environment disappoint faculty more significantly and are potential sources of job dissatisfaction within the work environment than instances of academic dishonesty, cheating. Cheating may take two forms – an individual taking a course or academic assessment is not the same individual who registered for the course, or a deliberate act of cheating by the registered student.

Academic research specifically targeted at online courses has grown considerably over the past 15 years (Conway-Klassen & Keil, 2010; Howell, Sorensen, & Tippets, 2009; Kennedy, Nowak, Raghuraman, Thomas, & Davis, 2000; McGee, 2013; Watson & Sottile, 2010).

The former situation has received specific attention by the United States Congress. Public Law 110-315, The Higher Education Opportunity Act of 1965, amended in 2008, requires higher education institutions offering online or distance education programs to have in place a procedure to verify a student's identity, that is, to make sure that the student submitting course work in a distance course is indeed the student who registered for the course (110th Congress, 2008). The Middle States Commission on Higher Education (MSCHE) requested clarification from the United

States Department of Education as to how an institution could verify a student's identity and consequently published the following in January 2010: "At this time, institutions may use systems with secure logins and passwords or proctored exams to verify a student's identity" and that "institutions should monitor the evolution of identity verification technologies" (MSCHE, 2010, p. 6).

While the potential problem of student identity is of concern to the institution, it is unlikely that an individual instructor would be aware if such a problem existed in a course. Not so, however, in cases of a student cheating in that instructor's class. In class cheating may take various forms. Gallant (2008) defines five forms of academic misconduct, not differentiating between actions taken by students or those taken by instructors:

- Plagiarism – using another's words or ideas without appropriate attribution or without following citation conventions
- Fabrication – making up data, results, information, or numbers, and recording and reporting them
- Falsification – manipulating research, data, or results to inaccurately portray information in reports (research, financial, or other) or academic assignments
- Misrepresentation – falsely representing oneself, efforts, or abilities
- Misbehavior – acting in ways that are not overtly misconduct but are counter to prevailing behavioral expectations. (Gallant, 2008, p. 10-11)

Stephens, Young, & Calabrese (2007), on the other hand, confine their classification of academic dishonesty to student efforts in three areas: "assignment

cheating, plagiarism, and test cheating" (p. 241). Their study of self-reported cheating by students in online and traditional courses found no significant difference in cheating behavior between the two groups: 68% of both groups admitted to cheating with plagiarism ("cut and paste" from internet sources) being the most typical.

Stuber-McEwan, Wiseley, and Hoggatt (2009) found the age of student affects the probability of cheating. Online, traditional age undergraduates were more likely to cheat than non-traditional (adult) undergraduates. Gender, on the other hand, did not affect reported cheating, while not surprisingly, students who said they cheated in high school were more likely to cheat in college.

King, Guyette, and Piotrowski (2009) provide an explanation as to why traditional age students reported cheating more than older students. In their words, traditional students today have a more "lax" attitude as to what constitutes cheating in online classes when the instructors provided no guidance as to what constitutes academic dishonesty. 121 undergraduate accounting students participated in an 11-item survey. The survey utilized a Likert 5 point scale rating from very inappropriate to very appropriate (3 = neutral) various academic behaviors. Two separate surveys were administered but the only difference between the two was that for one survey the survey questions were preceded by a statement from the instructor that the activity would be considered inappropriate; the other survey provided no input from the instructor. In some cases, there was no difference between the two groups. For example, when asked if having person take an online exam for another student, 94% of the respondents with input from the instructor indicated that action would be "very inappropriate", while 97% of the students without instructor input considered it to be "very inappropriate". However,

when asked of the appropriateness of using an online source during an online exam, 21% responded that it would be "very inappropriate", but when the instructor indicated that would not be acceptable, the "very inappropriate" response increased to 78%. The researchers conclude that at least part of the reason traditional age students engage in behavior their instructors or older aged students consider to be cheating, is that they simply do not consider some of their behavior to be wrong.

Fask, Englander, and Wang conducted an experiment to see if students would be more likely to cheat with an online exam compared to those taking an in-class, proctored exam. Forty-four students in an undergraduate statistics course were divide into two groups. They were told that they would be taking a practice exam and three days later would take the actual exam for grade. Students taking the online practice exam scored 14 points lower than the students in class (significance: $p < 0.05$). They concluded that the testing environment affected the exam result. Additionally, as this was a practice exam and would not be for grade, there was no motivation for students to cheat. Three days later the actual final was administered with opposite results. The online students significantly outscored the in-class students leading the researchers to conclude that the result was likely a function of cheating by the online section (Fask, Englander, & Wang, 2014). The researchers concluded that "professors and deans must take affirmative steps to suppress student cheating in those courses relying on online testing" (p. 111).

Online Instruction – Faculty vs. Administration Opinions

The Babson Survey Research Group is the leading organization in the United States devoted to studying online education. Its 2012 study of 4,564 university faculty and 591administrators revealed differences of opinion – some fairly striking and perhaps

signaling a disconnect between these two groups on a set of factors involving online education. Three results from the survey are presented here.

When asked if one had more fear than excitement concerning the growth of online education, 57.7% of all faculty responded "yes", yet only 19.8% of university administrators felt similarly. When dividing the faculty into two groups, those teaching online and those not, the faculty percentages did change as now just 37.5% of online faculty reported more fear, still that percentage is nearly twice the percentage of administrators (for non-online faculty the percentage was 64.8%) (Allen, Seaman, Lederman, & Jaschik, 2012, p. 37).

The survey asked if online instruction could be as effective as face-to-face instruction in terms of helping students learn. 83.1% of administrators either agreed or strongly agreed compared to 34.7% of those teaching online (Allen, et al., 2012, p. 32). In a related question, 69% of those teaching online felt that learning outcomes for online instruction was either somewhat inferior or inferior to face-to-face instruction. The compares to 32.4% for chief academic officers and 20.8% for academic technology administrators (p. 31).

In the matter of compensation, 29.9% of faculty felt that their institution was paying fairly for online instruction, while, not surprisingly perhaps, 58.3% of administrators felt that compensation for online instruction was fair (p. 34).

Online Instruction – Employer Perceptions

Employer perceptions of online degrees is undergoing a slow change. Carnevale (2007) reported that in a 2005 study involving 269 hiring managers in a variety of industries – the managers were given two hypothetical applicants, one from a traditional

university, the other from an online institution – 96% of the managers preferred the traditional applicant. A 2006 survey of 101 managers reported that 55% preferred traditional applicants. However, Carnevale continues that the acceptance of online degrees among hiring managers was to a degree a function of familiarity with online education – the more familiar the manager was with online instruction, the more acceptance (Carnevale, 2007).

Fogle and Elliott's (2013) research confirmed Canevale's observation that hiring managers who were more familiar with online education looked more favorably on that modality. When those managers without experience with online education were asked if they would *not* hire an applicant with an online degree, the median response (on a 5-point Likert Scale) was "3", indicating that an equal number of hiring managers would or would not hire an applicant with an online degree. On the other hand, in response to the same question, those managers who either attended an online institution or had taken hybrid classes, the median response was "1", strongly disagree (Fogle & Elliott, 2013, p. 80). In another section of their study, they tested the Null Hypothesis that the choice of who would be hired – on campus candidates or online candidates - would not differ in regardless of where the hiring manager received her/his degree (on -campus or online) was rejected at the 0.001 level of significance. As they then stated:

> Another way of looking at the data …is that 71% of the total hires of online students come from respondents with a degree that is hybrid or online, even though (those) respondents … comprise only 22% … of the total responses to the question. (Fogle & Elliott, 2013, p. 81)

The studies mentioned treat degree programs equally, yet one might ask if there may indeed be differences within disciplines? While research is slight in this area, three recent studies may provide some insight to the question. Tabatabaei and Gardiner (2012), using a vignette experiment methodology (82 recruiters were provided background files on job applicants) studied whether or not recruiters seeking employees for information systems positions would favor an applicant depending three criteria: the applicant's academic background (online or traditional), academic performance (GPA), and work experience. They found that work experience and GPA were determining factors in a recruiter's hiring decision, but the applicant's academic modality, online or traditional, did not. (Tabatabaei & Gardiner, 2012). Conversely, Tabatabaei, Solomon, Strickland, & Metrejean (2014), found a very different result in their study of employers of accountants. Fifty percent of 101 management respondents from CPA firms when asked if a traditional degree was preferred over an online degree, either agreed or strongly agreed, whereas only 24% either disagreed or strongly disagreed. The academic background of the CPA manager (whether or not the individual had direct experience with online education) was found to be only moderately significant ($p < .10$) (Tabatabaei, et al., 2014). Lastly, in a survey of 20 employers for MBA's half the sample indicated that having an online degree would not be an issue in hiring and all participants in the survey stated that in the future the acceptance of online MBA would probably increase ("The Value of an Online MBA," 2012).

Online Instruction: Qualitative vs. Quantitative

Research concerning itself with teaching online, almost invariably treats subject matter as a constant – that all courses are more-or-less the same. But are they? Specifically, is the teaching and learning experience the same for quantitative as it is for qualitative courses? As Lam and Khare (2010) stated, "Many scholars have already written about the benefits and best practices of online teaching in general. However not many studies have paid specific attention to the teaching of quantitative courses, which can be vastly different from other courses" (p. 229). Yet as these authors point out, given their "dialectically different pedagogical approach" (p. 230), quantitative courses can be very different than qualitative courses. For one, quantitative course content is quite linear with one topic building on another. Should a student fall behind in a quantitative course, it is very difficult to catch up – one builds a foundation fairly early in a course and if that foundation is weak the following more complex concepts can be detrimental. Adding to the challenge of teaching quantitative business courses online is the requirement that the student has mastered various mathematical concepts, again part of the foundation for the course. The instructor may be faced with a student who may be struggling in the course, but the difficulty may be mathematics, not business. Mariola and Manley, teachers of online finance courses, while enthusiastic about the teaching of these courses online, warn that different students in quantitative courses may favor different learning styles, as will those taking qualitative courses, and that for some, online quantitative courses may not be the best modality (Mariola & Manley, 2002).

Mulig and Rhame (2012) writing in the Journal of Accounting & Finance, state that instructors contemplating teaching online understand that course development and

delivery require more time than traditional classes. Whereas Im (2014) reports that in online undergraduate accounting courses the dropout was far higher (six time higher) than the traditional class and that while 2.78% of the students in the traditional accounting class failed, 15.63% of the online students failed.

Summary

Use of adjunct/online faculty. The growth of online classes coupled with the growth in the use of adjunct faculty – many of whom teach online – may create significant challenges for higher education administration as trained online adjunct faculty consider their higher education employment options. From 1976 to 2011 the number of adjunct faculty in the United States grew 286% (or 51.4% of all faculty positions) while the growth rate of full-time, tenured-track faculty increased 36% (Curtis, 2014). This high growth in the use of adjunct faculty has certain cost advantages for the institution. As Kezar and Maxey (2013) point out, adjunct faculty earn approximately 60% less than their full-time, tenured colleagues.

As Schibik and Harrington (2004) discuss, adjunct faculty turnover costs for any institution can be considerable when one takes into consideration the resources associated with search, recruitment, hiring, coordination, monitoring and control. Additionally, when hiring new faculty there will be learning curve associated with becoming an effective instructor.

Reduced costs is not the only reason higher education embraces adjunct faculty. Flexibility in scheduling, diversity, expertise, quality of instruction, and the development of a potential full-time faculty pool were cited by Iadevaia (1991) and the ability to add

instructors quickly in order to adjust to unanticipated course demand were discussed by Schibik and Harington (2004).

Keeping well trained adjunct faculty, especially as more institutions come to rely on this source of employee, has strategic implications.

The use of adjunct faculty is not without its critics, however. Todd (2004) raises ethical concerns maintaining that the use of adjunct faculty demeans the profession, creates job insecurity, and results in inequitable compensation. Seibert (1996) echoes Todd stating that is unfair to compensate adjunct faculty lower than their full-time counterparts as they essentially perform equal jobs of equal value to the institution.

Job Satisfaction, Herzberg, and Intent to Leave

Literally thousand studies have involved job satisfaction with many addressing satisfaction in higher education. The work of Frederick Herzberg and his two-factor model (motivator/hygiene) has been employed by numerous researchers to include the work of Jeffrey Hoyt (2007) and Doris Bolliger (2009) in their separate studies of faculty satisfaction (portions of their surveys were incorporated in the survey for this study).

Ryan and Deci (2000) utilize intrinsic and extrinsic variables, similar to Herzberg is their study of motivation as do Gappa, Austin, and Trice (2007), Furnham et al. (2009), Bassett-Jones and Lloyd (2005) and Waltman et al. (2012). Lefebvre (2009) confirmed that Herzberg's two-factor theory was applicable in determining factors associated with job satisfaction.

Company policy and administration is a key component in Herzberg's hygiene factors. Kezar and Sam found that most institutions of higher education did not have policies affecting adjunct faculty and those that did often did not administer them

consistently (2013). The one policy that was found most often was a policy that controlled the maximum workload of adjunct faculty in consideration of when an employee would qualify for health care or benefits (WCET, 2011).

Online Modality

Following a brief history/development of online education, the importance of scale, the minimum enrollment necessary to successfully implement an online program, is discussed by Moloney and Oakley (2010).

Utilizing Herzberg's hygiene category of the work itself, the issue of academic dishonesty is developed in detail. Traditional age students were more likely to cheat than non-traditional (adult) students (Stuber-McEwan, Wiseley, & Hoggatt, 2009) as per King, Guyette, and Piotrowski (2009) traditional age students were far more "lax" in their attitudes toward what constitutes academic dishonesty. Fask, Englander, and Wang (2014) found that online students were more likely to cheat than those students taking courses in a traditional (face-to-face) setting.

The linkage between job satisfaction and an employee's intent to leave (loyalty) has been well documented from the work of Vroom (1964), to Rosser (2004), Xu (2008), Rosser and Townsend (2006). Rosser documented an inverse like between an employee's job satisfaction and their intent to leave while Xu concluded that one's intent to leave an institution was related to their job dissatisfaction. Rosser and Townsend (2006) found using Herzberg's terminology, that intrinsic factors or motivators and extrinsic factors or hygiene factors influenced both a sense of job satisfaction and one's intent to leave a position, a finding similar to Hoyt's (2012).

Employer Perceptions

Employer perceptions of online instruction appears to be evolving as more employers become familiar with online instruction. Most employers valued work experience and GPA over modality (Tabatabaei & Gardiner, 2012), with the exception of accountants who still favored traditional graduates over those with online degrees or online courses within their degree (Tabatabaei et al., 2014).

Qualitative vs. Quantitative

Little research was found comparing or contrasting teaching qualitative vs. quantitative courses especially in the online modality. Apparently, most researchers consider the instruction of courses within these categories to be essentially the same. Lam and Khare (2002), on the other hand, do maintain that teaching quantitative courses is quite different than non-quantitative courses and while Mariola and Manley warn that student learning styles differ and for some taking online quantitative courses may not be a wise decision.

CHAPTER THREE

METHODOLOGY

The data collection process and the analysis of that data are the topics of this chapter. It begins with a description of the institution from with the unit of analysis – the faculty – was drawn, and is followed by a discussion of the research design. The population studied, the process of data collection, the design of the survey instrument, and the data analysis methodology follow.

Population Source and Unit of Analysis

For the purpose of this study, the researcher chose a private, four-year institution, located in the mid-Atlantic area of the United States. Offering associate to doctoral degrees, the university is a mid-sized institution of approximately 20,000 students divided almost equally between traditional and non-traditional (returning adult) students. Degrees offered are primarily professional, housed in six academic colleges: business, education, liberal arts, nursing, technology, and behavioral science.

The Carnegie Foundation for the Advancement of Teaching lists the university as a 4-year, private, not-for-profit, primarily nonresidential institution, categorizing the undergraduate program as professional with arts and sciences, and the graduate program as post baccalaureate professional (education dominant) (Carnegie Foundation, 2010).

The unit of analysis consists of the part-time (adjunct) faculty teaching in a traditional classroom or online.

Research Design

"The function of research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible" (deVaus, 2005, p. 9). Maxwell functionally adds to deVaus' basic statement by developing an interactive model of research design based upon five questions: what is the purpose or goal of the study, what is the conceptual context or theory that is guiding the study, what are the research questions, what methods will be used in the study, and the question of validity: "how might you be wrong … why should we believe your results?" (Maxwell, 1996, p. 4-5).

For this study, a cross-sectional design and survey was employed as this design is appropriate for studying current attitudes of a population at a single point in time, not being concerned with changes over time as would be the case in longitudinal studies (Gay, Mills, & Airasian, 2009). Cross- sectional design and analysis measures differences between studied groups with no interaction on the part of the researcher. The groups are not selected randomly, but are populated based upon a given independent variable. While cross-sectional studies are, at times, criticized for the lack of a time span element and therefore are limited in use to the study of differences rather than change in the groups, by repeating the study or survey at given intervals, this criticism is somewhat mitigated (deVaus, 2005).

Population Studied

The target population of the study was all active adjunct faculty, undergraduate and graduate, who taught at least one course in the past four semesters. All adjunct

faculty members were asked via email to participate in the study by completing the questionnaire. The completed questionnaires yielded the following in terms of response:

Table 1
Survey Response Rate

Faculty Type	Population	Completed Survey	Response Rate
Adjunct Faculty	2000	350	17.5%*

* Technical difficulties affected the response rate. While Survey Monkey was the platform used for survey construction, the email distribution system employed (provided by the subject University) proved somewhat problematic. Numerous potential participants reported after the closeout period of the survey, either not receiving the survey or that the survey when received was inappropriately relegated to the "spam" folder. Additionally, it was discovered, post survey, that in some cases participants who had arranged for their university email to be automatically forwarded to their private or work email found that the hyperlink to Survey Monkey was rendered inoperable. Therefore, it is felt that the reported response rate, while acceptable, probably underestimates by some undetermined factor the response rate in actuality.

Response by gender was also reviewed – comparing the University's overall gender breakdown to that of those completing the questionnaire:

Table 2

Gender

Gender	University	Survey
Male	47%	44%
Female	53%	56%

Instrumentation

Four sources were utilized in constructing the survey questionnaire: researcher developed questions (demographic and intrinsic/extrinsic), questions based upon the literature review, survey questions from Bolliger and Wasilik's study of faculty satisfaction (Bolliger & Wasilik, 2009), and the surveys developed by Hoyt and his associates that assessed satisfaction of adjunct faculty utilizing Herzberg's two factor model (Hoyt, 2012; Hoyt et al., 2008). Permission was obtained to use, with modification, both surveys.

A total of 45 questions comprised the completed instrument. Eleven were demographic questions utilized for descriptive statistics, and the remaining 34 questions were used to assess the variables affecting job satisfaction and were measured by use of a five-point Likert scale.

The use of Likert scales in this context is not without some controversy that began in the 1940's with the work of Harvard psychologist S.S. Stephens. It was Stephens who originally coined the terms nominal, ordinal, interval, and ratio for measurement scales and then restricted certain statistical procedures to one or more of these scales (Velleman

& Wilkinson, 1993). Harwell and Gatti (2001) exhibited considerable concern as to the proper use of Likert scale data:

> Many statistical procedures used in educational research are described as requiring that dependent variables follow a normal distribution, implying an interval scale of measurement. Despite the desirability of interval scales, many dependent variables possess an ordinal scale of measurement in which the differences among the variables composing the scale are unequal in terms of what is being measured, permitting only a rank order of scores. (p. 105)

However, Velleman and Wilkinson (1993) counter that Stephen's categories may often be inappropriate, "do not describe the attributes of real data that rare essential to good statistical analysis … (and are) not appropriate for modern data analysis work" (p. 2). Additionally, Clason and Dormody (1994) maintain that "Likert scaling presumes the existence of an underlying (or latent or natural) continuous variable whose value characterizes the respondent's attitudes and opinions … (and) each Likert-type item provides a discrete approximation of the continuous latent variable" (p. 31-32).

Indeed, this researcher found numerous peer-reviewed articles and published dissertations utilizing Likert scale survey responses that assumed an interval data range, indicating acceptance of this approach.

Bolliger and Wasilik's survey of faculty satisfaction – used with modification in construction of this survey - utilized a four-point Likert scale (no neutral value). Their survey instrument consisted of 28 questions developed for three subscales that measured student, instructor, and institutional-related issues. Their questions were based upon a literature review that focused on "challenges and barriers to faculty teaching online and

faculty satisfaction" (Bolliger & Wasilik, 2009, p. 107). The survey was reviewed by content and psychometric experts, pilot tested, and internal reliability analyzed using Cronbach's alpha.

Hoyt's survey, also used in the development of this study's survey instrument, utilized a six-point Likert scale. This survey consisted of 33 items grouped in accordance with Herzberg's two-factor theory of hygiene and motivation constructs. Hoyt then subdivided the hygiene and motivation factors, as Herzberg did, into subsets of independent variables that impacted the dependent variable, part-time faculty satisfaction. These independent variables defined Herzberg's more generic ones. Table 3 relates Herzberg's independent variables (divided by his two factors) to Hoyt's. Hoyt used Herzberg's independent variable listing that appeared in Herzberg's original 1959 book, and not the slightly expanded listing found in Herzberg's 1987 Harvard Business Review article. Cronbach's alpha were used to verify the validity and reliability of the survey and associated subscales. 18 questions on the survey were developed by Hoyt and his associates based upon a literature review. Eight questions (modified) were used by permission from Bolliger, and the remaining questions were original and were based upon a review of the literature or conversations with faculty.

The heart of the survey was based upon Herzberg's two factor model as utilized by Hoyt in his research.

Table 3

Comparison of Herzberg's and Hoyt's Independent Variables

Herzberg	Hoyt
Hygiene Factors	Hygiene Factors
Supervision	Supervision
Salary	Honorarium (pay or salary
Working Conditions	Flexibility of schedule/Quality of Students
Interpersonal Relations	Faculty Mentoring
Company Policy & Administration	Not Used
Motivators	Motivators
Achievement	Challenge
Recognition	Recognition
Work Itself	Work Preference
Responsibility	Committee Assignments
Advancement	Not Used

Process of survey construction: questions from Bolliger and Hoyt surveys were selected and combined with researcher designed questions resulting from the literature review. Questions were grouped within the final survey in accordance with Herzberg's factor categories.

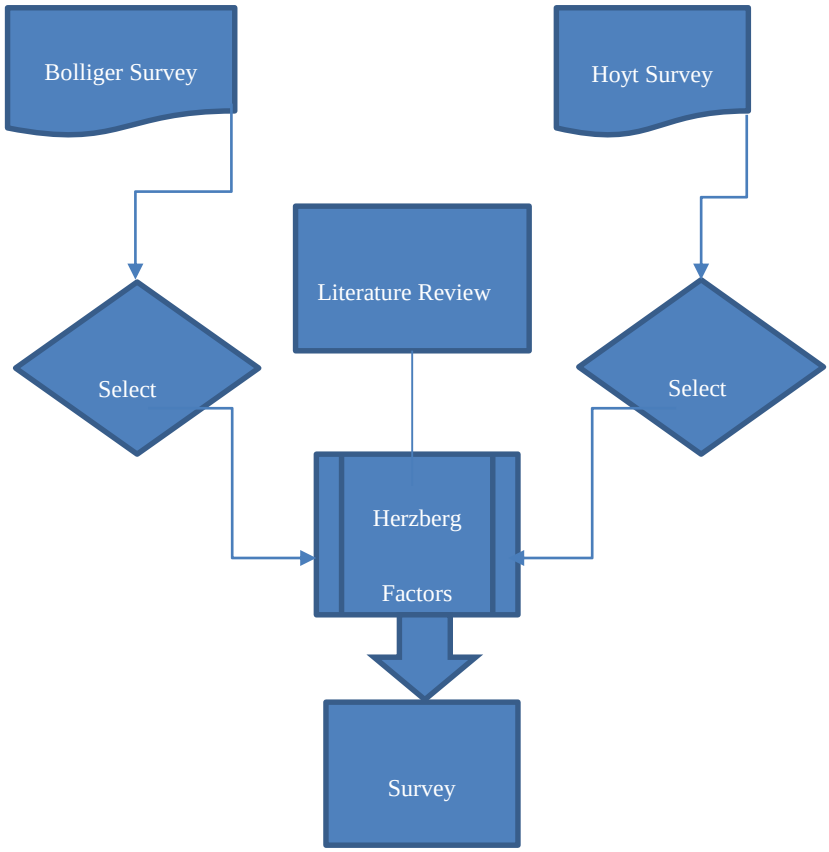

Figure 3. **Survey Construction Process.**

Participants

For the purpose of this study all adjunct faculty were asked to participate with particular emphasis placed upon "active" adjunct faculty, defined as those adjunct faculty who had taught at least one course within the past four semesters (Fall 2014 to Fall 2015 inclusive). Of that number, 249 (16% of the total) taught 100% online (M. E. Griffin, personal communication, February 2, 2015). Descriptive variables included: gender, age, experience, college within the university, number of quantitative courses taught, level taught (undergraduate, graduate, doctoral).

Table 4

Herzberg Topics/Variables by Source

Herzberg	Independent Variable	Source
Topic	Hygiene Factor	
Supervision	My Immediate academic supervisor (Program Chair or Dean) is available to me when I need assistance	Hoyt
Supervision	My immediate academic supervisor (Program Chair or Dean) lacks interest and cares little about my success as a teacher (reverse coded)	Hoyt
Supervision	I feel comfortable requesting assistance from my Program Chair or Dean when I have questions	Hoyt
Salary	I feel I am well compensated for my teaching	Hoyt
Salary	I am paid fairly for the amount of work I do to teach courses	Hoyt
Salary	I am dissatisfied with the pay I receive for teaching courses (reverse coded)	Hoyt
Working Conditions	I am satisfied with the quality and caliber of the students in my classes	Hoyt
Working Conditions	Students lack motivation or the academic skills to succeed in my classes (reverse coded)	Hoyt

Interpersonal Relations	My relationship with fellow adjunct faculty is rewarding	**
Interpersonal Relations	I have little or no interaction with other adjunct faculty	**
Company Policy	University Policies that affect me as an adjunct faculty member are satisfactory	**
Company Policy	I would prefer to teach more courses than I am allowed by policy (10) to do	**
Company Policy	It concerns me that the University policies affecting academics or student issues are not always consistent to their application (reverse coded)	***
	Motivators	
Work Itself	I enjoy teaching courses	Hoyt
Achievement	I am putting in extra time and effort to become a better teacher	Hoyt
Achievement	My teaching skills and abilities have improved during my time teaching	Hoyt
Recognition	Adjunct faculty are recognized for their teaching contributions to the University	Hoyt
Recognition	I am often thanked for my teaching here	Hoyt

	Dependent Variables	
Overall Job Satisfaction	I would recommend teaching at this University to other qualified people	Hoyt
Overall Job Satisfaction	I would prefer to teach somewhere else instead of this University (reverse coed)	Hoyt
Overall Job Satisfaction	I am very proud to tell others that I teach at this University	Hoyt
Overall Job Satisfaction	I am satisfied with my job teaching as an adjunct faculty member at this University	Hoyt
Overall Job Satisfaction	I am dissatisfied with aspects of my job as an adjunct faculty member at this University (reverse coded)	Hoyt
	Additional survey questions pertaining to online teaching	
	Academic dishonesty (cheating) on the part of some students is a concern for me in my classes (reverse coded)	*
	The flexibility provided by the online environment is important to me	Bollinger
	My online students are actively involved in their teaching	Bollinger

	My students are active in communicating with me regarding course matters	Bollinger
	I am concerned about receiving lower course evaluations in the online course as compared to the traditional (face-to-face) one (reverse coded)	Bollinger
	I have a higher workload when teaching an online course as compared to the traditional (face-to-face) one	Bollinger
	It takes me longer to prepare for an online course on a weekly basis than for a traditional (face-to-face) course (reverse coded)	Bollinger
	It is more difficult for me to motivate my students in the online environment than is the traditional setting (reverse coded)	Bollinger

Source code: Hoyt – from Dr. Jeffrey Hoyt's 2012 survey; Bollinger – from Dr. Doris Bollinger's 2009 survey instrument; * - original questions based upon the literature review; ** - original question developed by the researcher; +++ - original question based upon faculty input.

Additionally, 11 demographic questions completed the instrument (Appendix A). In total, 12 independent variables (Herzberg's factors) consisting of three questions were used affecting the dependent variable (job satisfaction / intent to leave). The remaining

eight (non-demographic) questions were designed for presentation utilizing descriptive statistics.

Reliability and Validity

Three subject matter experts (SMEs) were enlisted to review and critique the instrument to ensure the questions were clear and mapped/were related to the research questions. As a result of their review, several questions were rephrased to eliminate possible confusion in wording and one question cited for vagueness was rewritten.

Following the adjustments related to the critique by the SMEs, a pilot survey was distributed to 24 full-time faculty with 18 responding. Upon review of the results of the pilot survey several changes were made. Due to low Cronbach Alphas, two survey questions pertaining to working conditions were removed. The resulting Cronbach Alphas by survey category were:

Table 5

Cronbach Alphas - Revised

Survey Category	Alpha
Supervision	.82
Salary	.94
Interpersonal Relations	.82
Work Conditions	.69
Achievement	.76
Company Policy and Administration	.69
Recognition	.80
Job Satisfaction	.83

Additionally several minor text changes were made and the demographic question pertaining to marital status was removed as it was felt that this question would not materially contribute to the study.

Following completion of the formal survey, Cronbach Alphas were again calculated and several notable differences between this result and the results of the pilot survey were noted. Specifically, two survey questions pertaining to Company Policy and Administration were subsequently deleted from consideration/analysis. Upon further consideration it was felt the difference was most likely a function of differences in the

faculty members comprising the pilot and the actual survey. While the actual survey participants were all adjunct faculty, pilot survey members were full-time faculty and undoubtedly had more exposure to and experience with University policies and administration.

The Cronbach Alphas were revised and then compared to the alphas reported by Hoyt. Table 4 reports those alphas for the Herzberg category questions together with the alphas of the source survey questions reported by Hoyt. Where applicable, Cronbach alphas (hereafter referred to as "alphas") were calculated to test for inter-category question reliability. Table 4 reports those alphas for the Herzberg category questions together with the alphas of the source survey questions reported by Hoyt.

Table 6

Cronbach Alphas by section with comparison to Hoyt

Survey Topic	Question Number	Survey Alpha	Hoyt Alpha
Supervision	1.1-1.3	.81	.77
Salary	2.1-2.3	.87	.89
Interpersonal Relations	3.1-3.2	.80	Not Reported
Working Conditions	4.1-4.4	.79	.79
Company Policy	5.1	Standalone question	Not Reported
Work Itself	6.1	Standalone question	.65
Recognition	8.1-8.2	.72	.82

Survey questions for research question 3 were developed (and used with permission) by Dr. Doris Bolliger. Dr. Bolliger's survey consisted of 28, non-categorical questions. Her survey's Cronbach reported alpha was .85.

"Validity refers to the extent to which an instrument measures what it is designed to measure" (Orcher, 2005, p. 114). There needs to be evidence that supports that an instrument – the survey – is valid, or more specifically as Wallen and Fraenkel (2001) ask, "does the instrument provide useful information regarding the topic or variable as defined by the researcher" (p. 89). The instrument utilized in this study provided useful predictive capability as evidenced by the adjusted R^2 in the multiple regression of .67. Face and content validity was attested to by both the subject matter experts and the pilot survey's feedback. Additionally the content topics, the intrinsic and extrinsic (motivator and hygiene) variables were the same topics used by Herzberg and replicated by numerous studies. Common threats to validity as discussed by Gay, Mills, and Airasian (2009) of history (events occurring that affected survey responses – the survey was self-contained and completed in approximately in 15 minutes), maturation (aging of the participants), testing (a pretest affecting the survey – a pretest was not used), and differential selection of the survey participants (all 2,000 adjuncts were surveyed), were not applicable here.

CHAPTER FOUR

RESULTS

The goal of this study was to provide baseline benchmarks or metrics for the level of job satisfaction and those variables associated with job satisfaction at an institution of higher learning. The use of Frederick Herzberg's theory of satisfaction and dissatisfaction as measured by variables he termed "hygiene factors" and "motivators" was central to this study.

The need for such a study, it was felt, was a matter of strategic importance to the university whose use of adjunct faculty, and particularly online adjunct faculty, was central to their growth strategy. Adjunct faculty, in Harvard's Michael Porter's model of company or industry power variables, constitute the "power of suppliers" (Porter, 2008) a power, or force, that has strategic impact and therefore importance to the institution (in this case the university) being analyzed. The loss of key suppliers has obvious negative implications to the institution. This potential loss is magnified when one considers that online adjunct faculty are not bound by the geographic constraints one would consider important to adjunct faculty members who physically teach at the institution. Simply stated, online faculty have employment options that are unbounded by geography – they can teach at any institution in the country or, if their pursuits so incline them, throughout the world.

That being said, maintaining an experienced and talented adjunct faculty is central to a university that desires to grow its institution or maintain its current market share. That maintenance, the keeping of its valued teaching resources, as Chen, Ployhart,

Thomas, Anderson, and Bliese (2011) point out, is in no small part a function of job satisfaction.

The framework employed to assess the variables affecting job satisfaction of adjunct faculty consisted of three research questions:

1. Is there a relationship between the overall level of job satisfaction and the following independent variables: teaching modality (online compared to face-to-face); demographic and background variables (gender, experience [years teaching], college within the university; if a degree was granted by subject university).
2. To what extent do intrinsic (motivation) or extrinsic (hygiene) variables as categorized by Herzberg affect job satisfaction of online adjunct faculty?
3. To what extent does a significant difference exist in: overall job satisfaction, perceived workload, preparation time, concern for student cheating, and perceived student skills, between online adjunct faculty teaching qualitative courses and those teaching quantitative courses?

Instrument

The survey instrument was prepared using Survey Monkey and was distributed via email by the University's webmaster. The resulting data was analyzed utilizing SPSS 22 software. The survey instrument was comprised of 31 Likert scale (five point) questions and 11 demographic questions. The survey was distributed to approximately 2,000 adjunct faculty members. The survey period was two weeks after which the survey link was disabled. 350 responses were returned for a response rate of 17.5%.

Issues with the survey distribution

The researcher experienced technical difficulties in the survey distribution. Post survey it was discovered that a number of the potential participants found that the survey was relegated to their "spam" folder, and therefore, did not have an opportunity to complete the survey. Additionally, it was found that in some cases where a participant had their university email automatically rerouted to their personal email account this process disabled the survey link. It was not possible therefore to determine how many surveys were not accessible to the participant.

Demographics of Study Participants

There were 11 demographic questions in the survey the results of which are presented in table 2 below. Comparison data is university data (personal communication, November 23, 2015).

Table 7

Study Participants

What is your gender	Frequency	Percent	Comparison
Female	195	56.4%	53%
Male	151	43.6%	47%
For which college do you teach			
Business	93	27.0%	20%

Social & Behavioral Sciences	72	20.9%	22%
Arts & Sciences	66	19.2%	16%
Education	40	11.6%	19%
Technology	38	11.0%	15%
Health Professions	35	10.2%	8%
Teaching Level			
Undergraduate only	177	50.9%	-
Graduate only	81	23.2%	-
Both Undergraduate & Graduate	90	25.9%	-
Degree from this University?			
Yes	145	47.5%	-
No	204	52.5%	-
Actively considering teaching for another university			
Yes	145	41.5%	-
No	204	58.5%	-
Number of courses taught at this University last four semesters			
‹ = 3	93	27.0%	-
4-6	114	33.1%	-
7-8	56	16.3%	-
9+	81	23.5%	-

Of the number of courses taught above, how many were quantitative/qualitative?	Frequency	Percent	Comparison
Quantitative	106	30.5%	10.2%
Qualitative	241	68.9%	89.8%
What is your age?			
‹ = 40	84	25.5%	-
41-52	81	24.5%	-
53-60	86	26.1%	-
61+	79	23.9%	-
Teaching Experience (years)			
≤ 4	120	34.4%	-
5-10	127	36.4%	-
11+	102	29.2%	-
Teaching modality			
Face-to-face only	141	42.0%	-
Online and face-to-face	195	58.0%	-

Discussion of Demographics:

The gender percentages reported by the survey participants closely resembles the data of gender percentages for all adjunct faculty reported by the University's

Department of Institutional Research. It is felt, therefore, that the survey's participants are appropriately represented.

On the other hand, when looking at the participation percentages by college it is noted that the University's College of Education is somewhat underrepresented. There is no apparent reason for this underrepresentation.

Teaching level: most adjunct faculty teach either at the undergraduate level (50.9%) or in combination of undergraduate and graduate. These combined percentages total 76.7%.

Of interest is the somewhat surprisingly high percentage of adjunct faculty who report receiving at least one degree from the University in the study (47.5%). Of additional interest is that 41.5% of adjunct faculty are actively considering teaching for another university. This of course does not mean that 41.5% of the respondents would leave this University, as many of those are most likely seeking to add courses to their current workload.

It is noted that 60.1% of adjunct faculty taught six courses or less over the past four semesters at this University. This does not appear to be an unreasonable workload. It should be remembered however, that this metric does not include courses a faculty member might have taught at an additional university. "Career Adjunct Faculty" is a term often experienced in the literature, that is, individuals who make a career teaching as a part time (adjunct) instructor at several institutions of higher learning. This University does not maintain data on outside employment.

30.5% of respondents reported teaching quantitative courses within the past four semesters. While the University does not formally maintain data for this topic, this

researcher reviewed all courses taught at the University in the fall of 2015 and determined that 10.2% (353 of 3,446) of courses taught could be considered quantitative. This would indicate that there was an overrepresentation of quantitative courses in the surveyed group. It should be remembered, however, the survey data is self-reported and while guidance was provided within the survey as to what could be considered a quantitative course, it is likely that survey respondents may have considered certain courses to be quantitative while the researcher did not.

Age was divided for reporting purposes into four categories: less than 40, 41-52, 53-60 and over 60. Representation was approximately equal within the groupings. Again, the University does not maintain age data. It is noted that with 23.9% of the adjunct faculty reporting their age as 61 or higher, a fair amount of turnover should be expected within the next ten years.

In terms of teaching experience, a fairly high proportion, 34.4%, have been teaching four years or less. This is not extraordinarily unexpected given the University's growth over the past five years; however, low experience levels among the adjunct faculty may exert additional workload for their division supervisors.

Forty-two percent of the adjunct faculty have no University experience teaching online (therefore, 58% do teach online). The University requires considerable training for a faculty member to be qualified to teach online. The University data indicates that 42% of faculty have completed the required online training and as this percentage closely resembles the 58% of respondents who report teaching online.

Scale Survey Questions

Scale (Likert) survey questions were divided into two sections: those pertaining to Herzberg's motivator/hygiene categories (25 questions compromised the survey, however two questions were eliminated from analysis due to a low Cronbach alpha resulting in a final total of 23 questions within this category) and those pertaining directly to online teaching (eight questions). Of the 23 questions in the Herzberg category, all but four came from a survey published by Dr. Jeffrey Hoyt (used with permission – document at appendix C). The remaining four questions were developed by this researcher and were the result of issues discussed in the literature review (see Chapter 3). The final eight questions pertaining to online instruction were originally published by Dr. Doris Bolliger (used with permission – document at appendix D).

Data Analysis

Survey results were downloaded into the Statistical Package for Social Sciences (SPSS) version 22. Descriptive statistics including means and standard deviations were utilized primarily in discussing five demographic characteristics of the studied population, whereas inferential statistics (t –tests, ANOVA, and Regression) were employed in the analysis of the constructs that were associated with the three research questions and their corresponding 14 hypotheses.

Results

The variable means and standard deviations are in Table 8. Within the table the definitions of three of the variables, those that are not particularly obvious, are:

Achievement: pertained to putting in extra time to become a better teacher and the feeling that the respondent was becoming a better teacher.

Supervision: the respondent's supervisor was available and cared about the person's success.

Interpersonal relations: the respondent's relationship and interaction with other adjunct faculty.

Table 8

Herzberg Variables: Means & Standard Deviations

Variable	Mean	Standard Deviation
Work Itself	4.79	.49
Achievement	4.33	.58
Supervision	4.19	.91
Job Satisfaction (independent variable)	4.15	.81
Company Policies	3.88	.81
Recognition	3.40	1.00
Working Conditions	3.24	.95
Salary	2.84	1.07
Interpersonal Relations	2.82	1.08

It should be noted that the Work Itself (teaching) and the sense of Achievement (one experiences through teaching) not only had the highest mean values but also had the greatest tightness of fit as evidenced by the low standard deviations, while Salary and Interpersonal Relations, the two dependent variables with the lowest mean values (and

the only two dependent variables with a negative connotation as to their effect on job satisfaction), also had the highest variability – the highest standard deviations.

High scores for both the work itself and sense of achievement are not surprising as adjunct faculty members choose to do this aside from their day-to-day jobs. Salary, as discussed in the literature review, has long been a source of concern among adjunct faculty at many institutions. This coupled with the relatively low pay at this institution (approximately 25% below national average) may account for the low mean score. Additionally it has been found that one's perception of pay fairness directly affects job satisfaction (Bozeman & Gaughan, 2011).

Research Question One

Is there a relationship between the overall level of job satisfaction and the following independent variables: teaching modality (online compared to face-to-face); demographic and background variables (gender, experience [years teaching], college within the university; if a degree was granted by subject university)?

Hypothesis One

There is a relationship between job satisfactions among adjunct faculty and teaching modality.

Hypothesis One (Null)

There is no relationship between job satisfaction among adjunct faculty and teaching modality.

As there were two independent variables considered in this hypothesis, a two-tail t-test was performed to determine whether or not there was a significant relationship between the independent variable, modality (teaching online or face-to-face), and the

dependent variable, job satisfaction, utilizing a significance level (p-value, α) of .05**.** This level was selected "based upon both risk and practical significance. If the consequences of committing a Type 1 error" (rejecting the Null when the Null is true) "are not severe or life threatening, we usually accept a lower level of significance (e.g., α = .05 rather than α = .01)" (Gay et al., 2009, p. 333).

For this dependent variable therefore (and the other dependent variables within research question 1) an alpha, α, level of .05 was utilized.

The mean and standard deviations of those teaching solely traditionally (face-to-face) and those teaching all or part of their courses online (F2F/ Online) are presented in Table 9. The survey question was: I am satisfied with my job teaching as an adjunct faculty member at this University.

Table 9

Mean and Standard Deviations: Modality

Traditional		Online	
Mean	Standard Deviation	Mean	Standard Deviation
4.09	.83	4.22	.78

While there is no significant difference in job satisfaction between the two groups, both groups indicate their relatively high satisfaction in teaching at the University with relatively little dispersion about the mean value as indicated by their low standard deviations. Hoyt et al. (2008) reported a relatively high level of overall job satisfaction by adjunct faculty, Likert value of 5.1 in 6-point scale (p. 32), as did Marston and

Brunetti (2009) with a reported Likert mean value for job satisfaction of 3.3 in a 4-point scale (p. 28).

The t-test revealed that there was no significant difference amongst the groups. Therefore for Hypothesis One: we fail to reject the Null Hypothesis.

Hypothesis Two:

There is a relationship between job satisfactions among adjunct faculty and gender.

Hypothesis Two (Null):

There is no relationship between job satisfaction among adjunct faculty and gender.

As there were two independent variables considered in this hypothesis, a two-tail t-test was performed to determine whether or not there was a significant relationship between the independent variable, gender, and the independent variable, job satisfaction, utilizing a significance level (p-value, α) of .05**.**

The t-test revealed that there was no significant difference amongst the groups. Therefore for Hypothesis Two: we fail to reject the Null Hypothesis.

While there is no significant difference in job satisfaction between the two groups, both males and females indicate their relatively high satisfaction in teaching at the University with relatively little dispersion about the mean value as indicated by their low standard deviations.

The mean and standard deviations of males and females are located in Table 10. The survey question was: I am satisfied with my job teaching as an adjunct faculty member at this University.

Table 10

Means and Standard Deviations: Gender

Female		Male	
Mean	Standard Deviation	Mean	Standard Deviation
4.21	.80	4.09	.82

The lack of significant difference in job satisfaction levels attributable to faculty gender can be found in the literature. Spivey et al. (2009) found "a lack of gender differences in job satisfaction" (p. 60), Bozeman and Gaughan (2011) in consideration of multiple demographic variables, found gender to have the least effect on job satisfaction explaining only 1% of the variance, and Xu (2008) found no significance difference in gender as it applies to job satisfaction and the related intent to leave one's place of employment in higher education.

Hypothesis Three

There is a relationship between job satisfactions among adjunct faculty and teaching experience.

Hypothesis Three (Null)

There is no relationship between job satisfactions among adjunct faculty and teaching experience.

The means and standard deviations for years teaching are shown in Table 11. The dependent variable, years teaching, was divided into three subgroups, those teaching four

years or less, those teaching between five and ten years, and those teaching eleven or more years.

Table 11

Means and Standard Deviations: Years Teaching

≤ 4		5-10		11+	
Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
4.24	.69	4.06	.89	4.16	.83

The mean values are all relatively close and all indicate that when one considers years of teaching in higher education, all age groups demonstrate that they are satisfied teaching as a member of the adjunct faculty – they "agree" with the statement. The low standard deviations indicate little variance among the age groups, indicating a homogeneous group when looking at job satisfaction. It should be noted, however, that the mean value for those relatively new to teaching (teaching four years or less) is highest amongst the three age groups.

As there were three independent variables considered in this hypothesis, an Analysis of Variance (ANOVA) was run to test for a significant relationship amongst the groups – none were found.

Therefore, for Hypothesis Three, we fail to reject the Null Hypothesis.

Hypothesis Four

There is a relationship between job satisfaction among adjunct faculty and the faculty's college within the university.

Hypothesis Four (Null)

There is no relationship between job satisfaction among adjunct faculty and the faculty's college within the university.

The means and standard deviations for College in which the respondent taught are shown in Table 12. The means are reported in descending order with the highest reported mean listed first. Again, the survey question (dependent variable) was: I am satisfied with my job teaching as an adjunct faculty member at this University.

Table 12

Mean and Standard Deviations: College Taught

College	Mean	Standard Deviation
Health Professions	4.26	.78
Technology	4.24	.94
Education	4.18	.87
Social & Behavioral Sciences	4.17	.76
Business	4.13	.76
Arts & Sciences	4.05	.81

The results from all six colleges indicate agreement with the statement that adjunct faculty members within those colleges are indeed satisfied with their teaching

position. The calculated means are all close in value and the standard deviations reflect little variance. It is noted that the College of Health Professions, (followed closely by the College of Technology) reported the highest mean value, while the College of Arts & Sciences, the lowest.

As there were six independent variables considered in this hypothesis, an Analysis of Variance (ANOVA) was run to test for a significant relationship amongst the groups – none were found.

Therefore, for Hypothesis Four, we fail to reject the Null Hypothesis.

Hypothesis Five

There is a relationship between job satisfaction among adjunct faculty and whether or not the faculty member has a degree from the institution in the study.

Hypothesis Five (Null)

There is no relationship between job satisfaction among adjunct faculty and whether or not the faculty member has a degree from the institution in the study.

The means and standard deviations for those receiving a degree from the subject University are shown in Table 13. The survey question (dependent variable) was: I am satisfied with my job teaching as an adjunct faculty member at this University.

Table 13

Means and Standard Deviations: Degree from this University

Yes		No	
Mean	Standard Deviation	Mean	Standard Deviation
4.29	.79	4.02	.81

While both groups – those who have received a degree from the subject University and those who did not – agree with the statement that they are satisfied being an adjunct faculty member at the University (again it should be noted that the relatively small standard deviations indicate little variance) the difference between the groups proved to be statistically significant (p ‹.05). In itself this is not surprising as one would assume a degree of loyalty with those teaching at their Alma Mater. It is also noted that a fairly high proportion of adjunct faculty respondents attended the University (47.54%).

A two-tail, t-test was run to analyze if there were differences between the groups that received a degree from the subject university and those who did not. Data shows that there was a significant difference as the significance = .002, is less than p. = .05.

The results of the Independent Samples Test are in Table 14 (equal variances assumed):

Table 14

t-test for equality of means: Degree from this University

df	Sig (2-tail)	Mean of Differences	95% Confidence Interval	
			Lower	Upper
342	.002	.087	.100	.441

Therefore, for Hypothesis Five, the Null Hypothesis is rejected; the Alternative Hypothesis is accepted.

Hypothesis Six

There is a relationship between job satisfactions among adjunct faculty and the age of the faculty member.

Hypothesis Six (Null)

There is no relationship between job satisfactions among adjunct faculty and the age of the faculty member.

The means and standard deviations for the "age" are located in Table 15 below.

Respondents, regardless of age, agreed with the statement that they were satisfied teaching as an adjunct faculty member. All mean values exceeded 4.0, however faculty members age 40 and below reported the lowest of the four means, whereas those faculty members 53 years of age and higher reported the highest. The standard deviations were quite low, indicating little variance.

Table 15

Means and Standard Deviations by Age Range

Age	Mean	Standard Deviation
≤40	4.05	.85
41-52	4.19	.78
53-60	4.26	.83
61+	4.24	.74

As there were four independent variables considered in this hypothesis, an Analysis of Variance (ANOVA) was run to test for a significant relationship amongst the groups – none were found.

Therefore, for Hypothesis Six, we fail to reject the Null Hypothesis.

Hypothesis Seven

There is a relationship between job satisfactions among adjunct faculty and the number of courses taught.

Hypothesis Seven (Null)

There is no relationship between job satisfactions among adjunct faculty and the number of courses taught.

For this hypothesis, the number of courses taught by adjunct faculty were divided into four subcategories (dependent variables): ≤ 3 courses, 4-6 courses, 7-8 courses, 9 courses or more. There were no significant differences among these dependent variables as to the effect on job satisfaction. All means were above 4.0 indicating strong

agreement with the independent variable, job satisfaction, however it is noted the mean values steadily increased as one moves by category from least to most courses taught.

Means and standard deviations for the independent variables are at Table 16:

Table 16

Means and Standard Deviations of Job Satisfaction by Number of Courses Taught

Courses Taught	Mean	Standard Deviation
≤ 3	4.06	.80
4-6	4.17	.79
7-8	4.18	.72
9+	4.21	.92

As there were four independent variables considered in this hypothesis, an Analysis of Variance (ANOVA) was run to test for a significant relationship amongst the groups – none were found. The differences among the means cannot be assumed to be a function of the number of courses taught, therefore one may assume the differences are likely due to chance. That being said, one does note a pattern in the mean data. The higher the number of courses taught the higher the mean value (satisfaction).

Therefore, for Hypothesis Seven, we fail to reject the Null Hypothesis.

Summary for Research Question One

Seven independent variables (modality, gender, years teaching, college association, degree from University, age, and number of courses taught) were studied as to their effect on job satisfaction. In every case, the mean value of the independent variable exceeded 4.0 (Likert scale 1-5) indicating that regardless of the independent variable studied, the relationship between said variable and the dependent variable, job satisfaction was relatively strong.

Of the seven hypotheses tested, three were analyzed by use of an independent sample, two-tail, t-test: modality, gender, and whether or not the faculty member received a degree from the University studied (hereafter referred to as "Degree"). A significance level (p value or α) of .05 was employed for the t-tests. There were no significant differences between the means of modality or gender; however, it was found that the means of "Degree" did vary significantly as adjunct faculty who had received a degree from the University under study experienced a higher degree of job satisfaction at that University.

The remaining four hypotheses were analyzed using the analysis of variance, ANOVA. This inferential statistic is appropriate when considering three or more dependent variables. The four hypotheses studied were: college worked for (6 variables), years taught (4 variables), age (4 variables), and number of courses taught (4 variables). No significant differences among the means of any of these four hypotheses were found.

Job satisfaction (dependent variable) as a function of these demographic independent variables appears strong.

Research Question One dealt with the relationships between various demographic (independent) variables and the dependent variable, job satisfaction. Here we move to what may be considered central to the overall study itself: the relationship of the independent variables studied by Herzberg to job satisfaction among adjunct faculty as a group and online adjunct faculty as a subset of that group and the usefulness of those independent variables as a predictor of job satisfaction.

Research Question Two:

To what extent do intrinsic (motivation) or extrinsic (hygiene) variables as categorized by Herzberg affect job satisfaction of online adjunct faculty?

General Discussion of the Analysis Procedure of Research Question Two:

Eight independent variables were considered: the first five Herzberg would consider to be extrinsic variables: supervision, salary, interpersonal relations, working conditions, company policy and administration, while the last three Herzberg would classify as intrinsic variables: the work itself, achievement, and recognition. A total of 20 survey questions were employed and where multiple survey questions pertained to one independent variable (for example, "supervision" utilized three survey questions) these questions were condensed into compound variables and thereby provided the researcher with one metric (see Chapter Three and the discussion of Cronbach's Alpha).

Multiple regression was used in this analysis. Multiple regression may be considered to be a continuation of simple linear regression – the difference being the number of independent variables utilized to predict the outcome or dependent variable. For example, simple regression is

> A linear model in which one variable or outcome is predicted from a single predictor variable.
>
> The model takes the (algebraic) form:
>
> $$Y_i = (b_0 + b_1X_1) + \varepsilon_1$$
>
> in which Y is the outcome variable, X_1 is the predictor, b_1, is the regression coefficient associated with the predictor and $b_0$is the value of the outcome when the predictor is zero. (Field, 2013, p. 883)

(The value ε_1 is an error term.) To move this equation or model from simple regression to multiple regression, one merely adds additional variables. (b_2X_2, b_3X_3, etc.). In the study here, the eight variables cited above were employed; the last would take the general algebraic form of: b_8X_8.

Hypothesis One:

Intrinsic and extrinsic variables have a significant effect on the overall level of job satisfaction of online adjunct faculty.

Hypothesis One (Null):

Intrinsic and extrinsic variables do not have a significant effect on the overall level of job satisfaction of online adjunct faculty.

In the hypothesis statement, the intrinsic variables and the extrinsic variables are the predictor (independent) variables in the regression, and job satisfaction is the outcome (dependent) variable.

Results – Regression: Intrinsic and Extrinsic Variables Effect on Job Satisfaction

The model summary is below. The key number within table 17 is the "R^2". While presented in decimal format, it tells us what percent of the level of the outcome

variable (job satisfaction) is accounted for by the eight predictor variables. Here, with an R^2 of .679, 67.9% of the variation in job satisfaction is predicted by, or is a function of, the eight predictor variables. It is noted that in the social sciences an R^2 of 30% is considered good.

Table 17

Regression: All Adjunct Faculty: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.824[a]	.679	.671	.46039

Note: a. predictors – (Constant) Supervision, the work itself, interpersonal relations, achievement, working conditions, company policies, salary, recognition.

Table 18 presents the ANOVA. Two numbers in the output are important in the analysis, the F-ratio (simply stated "F") and the significance of the regression ("sig") - in other words, do the independent variables significantly impact job satisfaction.

Table 18

Regression: All Adjunct Faculty: ANOVA

Model		Sum of Squares	df	Mean Squares	F	Sig
1	Regression	148.078	8	18.510	87.328	.000[b]
	Residual	69.845	330	.212		
	Total	218.024	338			

a. Dependent variable: job satisfaction

b. Predictors: (Constant), the work itself, interpersonal relations, salary, company policies, working conditions, achievement, recognition, supervision.

> The concept underlying ANOVA is that the total variation or variance of scores can be divided into two sources – variance between groups and variance within groups. Between-group variance considers, overall, how individuals in a particular group differ from individuals in the other groups. (Gay et al., 2009, p. 342).

What one wants to see in the ANOVA output is that the variance between groups is large, not the variance within groups. The "F" statistic, if large (and much greater than 1), provides one with that information. In this output, the "F" (ratio) of 87.328, being large, indicates that the variances experienced are due to differences between the groups and not within the groups.

The significance, "sig", in the model is compared to the alpha of .05. A significance value lower than .05 indicates that regression model does provide a significant predictor of job satisfaction. The question remaining is which one, or ones, of

the predictor variables are themselves significant in effecting job satisfaction. We cannot simply assume given the significance reported in the ANOVA that all predictors are indeed effective. To answer this question, we must analyze the predictors individually. This information is contained in Table 19, Coefficients.

Table 19

Regression Coefficients: All Adjunct Faculty

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig
(Constant)	.330	.281	.045	.1172	.242
Achievement	.062	.047	.045	1.304	.193
Work Itself	.108	.057	.066	1.914	.057
Recognition	.018	.030	.023	.610	.542
Salary	.110	.027	.146	4.004	.000
Interpersonal Relations	.025	.025	.033	.984	.326
Working Conditions	-.025	.029	-.030	-.845	.399
Company Policies	.064	.035	.065	1.826	.069
Supervision	.643	.041	.677	15.723	.000

From the above, the regression equation is: .330 + .062x_1 + .108 x_2 + .018x_3 + .110x_4 + .025x_5 +-.025x_6 + .064x_7 + .643x_8 + error, where .330 is a constant and independent variables x_1 through x_8 are: achievement, the work itself, recognition, salary, interpersonal relations, working conditions, company policies, and supervision respectively. Two coefficient t scores were significant at p ‹.05, salary p. = .000, and supervision p. = .000.

The important information gleaned from Table 19 is that of the eight independent variables, only two, Salary and Supervision (both extrinsic variables) are predictive of job satisfaction (the only two variables whose significance levels are less than $\alpha = .05$).

Therefore, in consideration of the tested hypothesis:

Hypothesis One:

Intrinsic and extrinsic variables have a significant effect on the overall level of job satisfaction of online adjunct faculty.

Hypothesis One (Null):

Intrinsic and extrinsic variables do not have a significant effect on the overall level of job satisfaction of online adjunct faculty.

For Hypothesis One, we reject the Null Hypothesis; the alternative Hypothesis is accepted: intrinsic and extrinsic variables (specifically salary and supervision) have a significant effect on the overall level of job satisfaction.

The above regression analysis included all adjunct faculty. The regression was run a second time but in this instance only online adjunct faculty were included (adjunct faculty who teach only in the face-to-face format were excluded).

The results of this additional regression are located in Tables 20 -22.

Table 20

Regression: Online Adjunct Faculty Only: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.836	.698	.685	.439

Note: a. predictors (Constant), Supervision, the work itself, interpersonal relations, achievement, working conditions, company policies, salary, recognition.

It is noted that there is a slight increase in the R^2 from .679 to .698. In other words, now 69.8% of the variation in the outcome variable, job satisfaction, is attributable to the predictor variables. The researcher anticipated an increase; however, it was expected to be larger.

The ANOVA, Table 21, indicates that the regression model for online adjunct faculty is significant in predicting online adjunct faculty job satisfaction.

Table 21

Regression: Online Adjunct Faculty Only: ANOVA

Model	Sum of Squares	df	Mean Squares	F	Sig
1 Regression	79.634	8	9.954	51.761	.000
Residual	34.424	179	.192		
Total	114.059	187			

a. Dependent variable: job satisfaction

b. Selecting only cases for which Modality = Online

c. Predictors: (Constant), Supervision, Interpersonal Relations, the Work Itself, Working Conditions, Company Policies, Salary, Achievement.

Table 22

Regression Coefficients: Online Adjunct Faculty

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std Error	Beta	t	Sig
(Constant	.649	.337		1.927	.056
Achievement	.039	.061	.031	.647	.518
Recognition	.045	.040	.060	1.131	.260
Work Itself	.101	.075	.065	1.352	.178
Salary	.107	.036	.149	3.019	.003
Interpersonal Relations	-.012	.032	-.017	-.385	.701
Work Conditions	.029	.039	.036	.762	.447
Company Policies	.061	.044	.067	1.374	.171
Supervision	.569	.053	.6541	10.691	.000

a. Dependent Variable: I am satisfied with my job teaching as an adjunct faculty member at this University

b. Selecting only cases which Modality = F2F/Online

Finally, as with the overall adjunct faculty pool, online adjunct faculty's job satisfaction had the same two statistically significant variables: salary and supervision.

Summary for Research Question Two:

The research of Frederick Herzberg was central in the development of this research question; it provided the theoretical framework. The eight most significant topics Herzberg studied were the basis for the independent variables and their corresponding survey questions in this study: supervision, Interpersonal Relations, the Work Itself, Company Policies and Administration, Salary, Achievement, and Recognition.

The hypothesis was analyzed via multiple regression asking the following question: were intrinsic and extrinsic variables (denoted by Herzberg as "motivators") and/or extrinsic variables (denoted by Herzberg as "hygiene" factors) significant in predicting job satisfaction? Additionally, two adjunct faculty pools were considered: all adjunct faculty and those adjunct faculty who taught online. Separate multiple regressions were run for these adjunct faculty groupings.

When looking at all adjunct faculty, the regression model indicated that the independent variables (see paragraph above) accounted for 67.1% of the variance in predicting job satisfaction. Interestingly however, upon further analysis, only two extrinsic variables, salary and supervision proved to be significant in effecting job satisfaction. No intrinsic variables were found to be significant.

The second regression was run, but was limited in using only those adjunct faculty who taught online (either solely online or at least part of their courses were taught online). The results from the online faculty were interestingly similar. The amount of the variance in predicting job satisfaction associated with the independent (predictor) variables, the R^2, increased, but only to 68.5%. Also, as with the original regression, the

same two, and only two, independent variables that were found to be significant in effecting job satisfaction were salary and supervision.

The finding of salary being of significance in being associated with and as a predictor of job satisfaction is well grounded in the literature. A national study conducted by the National Center for Education Statistics (2004) found that 35% of adjunct faculty to be dissatisfied with the salary. Marston and Brunetti (2009) found salary and benefits as associated with job satisfaction to be rated low as motivators. Hoyt (2012) in his research on faculty job satisfaction utilizing Herzberg's theory, found in his multiple regression model that 57% of the variance in job satisfaction to be a function of Herzberg's variables. Additionally he found, similar to this study that salary was a significant predictor of job satisfaction, second only to the work itself.

Yet perhaps most important, especially in regard to the title of this study, that job satisfaction is of strategic importance to institutions of higher learning, comes from Satterlee, When discussing salary, Satterlee states,

> This is important, as it is relatively easy for online faculty who are not satisfied to leave a position, as in an online environment there are normally no close ties with co-workers, no contract, and a move of one's household is not required. (2008, p. 7).

Research Question Three

To what extent does a significant difference exist in: overall job satisfaction, perceived workload, preparation time, concern for student cheating, and perceived student skills,

between online adjunct faculty teaching qualitative courses and those teaching quantitative courses?

General Discussion of the Analysis Procedure of Research Question Three:

The final research question looks at an area not in evidence in the literature, a gap in the literature in other words. The existing literature that discusses job satisfaction among adjunct faculty treats the types of courses, quantitative or qualitative, as insignificant the lone exceptions being brief discussions as to the pedagogical differences in teaching quantitative courses (Lam & Khare, 2010), and that when students fall behind in quantitative courses it is more difficult for them to catch up (Mariola & Manley, 2002). This research question attempts to shed light onto possible differences in specific areas between those adjunct faculty teaching quantitative vs. qualitative courses.

Five hypotheses were analyzed, all using two tail, t-tests of significance.

Hypothesis One:

The type of course taught (quantitative or qualitative) affects the adjunct faculty member's job satisfaction.

Hypothesis One (Null):

The type of course taught (quantitative or qualitative) has no effect on the adjunct faculty member's job satisfaction.

Table 23 shows the mean and standard deviations for those teaching quantitative vs. qualitative courses in regard to overall job satisfaction. The survey question (dependent variable) was: I am satisfied with my job teaching as an adjunct faculty member at this University.

Table 23

Means and Standard Deviations: Quantitative vs. Qualitative – Job Satisfaction

Quantitative		Qualitative	
Mean	Standard Deviation	Mean	Standard Deviation
4.10	.86	4.17	.79

The means of both groups show overall job satisfaction. The mean of the qualitative group is slightly higher, but a resulting t-test failed to demonstrate a significant difference. It is also noted that the standard deviations are not great indicating little variance.

Result:

For Hypothesis One, we fail to reject the Null Hypothesis.

Hypothesis Two:

The type of course taught (quantitative or qualitative) affects the online adjunct faculty member's perceived workload.

Hypothesis Two (Null):

The type of course taught (quantitative or qualitative) has no effect on the online adjunct faculty member's perceived workload.

Table 24 shows the means and standard deviations for those online adjunct faculty teaching quantitative vs. qualitative courses in regard to perceived workload.

Table 24

Means and Standard Deviations: Perceived Workload Online Faculty – Quantitative vs. qualitative courses

Quantitative		Qualitative	
Mean	Standard Deviation	Mean	Standard Deviation
4.08	1.49	3.98	1.57

There is a categorical difference between the two means as quantitative online faculty agree with the survey statement whereas qualitative online faculty are neutral. That being said, the differences as determined by the t-test were not significant. In this case however the standard deviations were rather pronounced indicating considerable dispersion.

Result:

For Hypothesis Two, we fail to reject the Null Hypothesis.

Hypothesis Three:

The type of course taught (quantitative or qualitative) affects the online faculty member's perceived preparation time.

Hypothesis Three (Null):

The type of course taught (quantitative or qualitative) has no effect on the online faculty member's perceived preparation time.

Table 25 shows the means and standard deviations for those online adjunct faculty teaching quantitative vs. qualitative courses in regard to perceived preparation time.

Table 25

Means and Standard Deviations: Preparation Time

Quantitative		Qualitative	
Mean	Standard Deviation	Mean	Standard Deviation
3.89	1.60	3.80	1.63

Both means reflect a neutral rating with quantitative respondents indicating a degree of agreement with the statement that preparation time is increased in online courses. However, that observed result proved not to be significant when subjected to the t-test. The standard deviations, a measure of variance are however again quite high.

Result:

For Hypothesis Three, we fail to reject the Null Hypothesis.

Hypothesis Four:

The type of course taught (quantitative or qualitative) affects the adjunct faculty member's concern for student cheating.

Hypothesis Four (Null):

The type of course taught (quantitative or qualitative) has no effect on the adjunct faculty member's concern for student cheating.

Table 26 shows the means and standard deviations for those teaching quantitative vs. qualitative courses in regard to concern for student cheating.

Table 26

Means and Standard Deviations: Concern for Student Cheating

Quantitative		Qualitative	
Mean	Standard Deviation	Mean	Standard Deviation
2.88	1.27	2.95	1.33

Both groups slightly disagreed with the statement indicating a relatively low concern for student cheating in either modality. However, the strikingly large standard deviations indicate considerable variance in the participants' responses. That being said, the differences as determined by the t-test were not significant.

The slight disparity between the two means, with qualitative responses indicating slightly more of a cheating concern may be a function of the different forms of student activity that constitutes cheating. As both Gallent (2008) and Stephens, et al. (2007) point out, cheating in class on an exam is one form (and one would assume of concern in quantitative classes, however, plagiarism, more expected in research papers or essays is a more likely occurrence in qualitative courses . Further, Stephens et al. (2007) research found that in student reported behavior, 68% of students admitted to cheating with plagiarism the most often cited form of cheating, Interestingly, when the studied student population was broken into two subgroups, online and face-to-face, there was no difference in reported cheating rates.

Result:

For Hypothesis Four, we fail to reject the Null Hypothesis.

Hypothesis Five:

The type of course taught (quantitative or qualitative) affects the adjunct faculty member's perceived student skills.

Hypothesis Five (Null):

The type of course taught (quantitative or qualitative) has no effect on the adjunct faculty member's perceived student skills.

Table 27 shows the means and standard deviations for those teaching quantitative vs. qualitative courses in regard to perceived student skills.

Table 27

Means and Standard Deviations: Perceived Student Skills

Quantitative		Qualitative	
Mean	Standard Deviation	Mean	Standard Deviation
3.43	.99	3.41	1.03

While both means are neutral (and almost identical) their values of 3.43 and 3.41 together with their relatively high standard deviations, indicate a level of concern among adjunct faculty as to their perceptions of their students' lack of motivation and/or academic skills.

The differences in the reported means as determined by the t-test were found not to be significant, accordingly:

For Hypothesis Five, we fail to reject the Null Hypothesis.

Summary for Research Question Three

Research question three posed the following question:

To what extent does a significant difference exist in: overall job satisfaction, perceived workload, preparation time, concern for student cheating, and perceived student skills, between online adjunct faculty teaching qualitative courses and those teaching quantitative courses?

This question was devised primarily from the researcher's own experience – teaching quantitative courses. An in-depth review of the literature pertaining to faculty job satisfaction failed to uncover any research that studied potential differences in job satisfaction between those teaching quantitative vs. qualitative courses. A gap in the literature was apparent.

Five hypotheses were evaluated to see if there were significant differences between those teaching quantitative vs. qualitative courses in the following dependent variables: overall job satisfaction, perceived workload, course preparation time, concern for student cheating, and perceived student motivation and skills. Two tail, t-tests were employed with a significance level of .05. Surprisingly to the researcher, no significant differences in any of the tested hypotheses were evident. In all five cases, it was not possible to reject the Null Hypothesis.

Some differences, while not significant were detected. Overall job satisfaction rated slightly among qualitative faculty compared to quantitative faculty. Perceived workload and preparation time were rated slightly higher by quantitative faculty and the standard deviations were quite large (exceeding 1.60) indicating wide variances.

Academic dishonesty appeared to be slightly more an issue with qualitative faculty. It was felt based upon the literature that this was probably due to plagiarism that is normally more likely in qualitative courses.

Overall to the degree these survey questions captured the question of satisfaction being a function of the nature of the course, that is qualitative or quantitative, the answer to that question, significantly speaking, is – it is not.

Summary of Key Findings

- Seven demographic variables were studied as to their effect on job satisfaction. In all cases the mean value of the responses exceeded 4.0 (5-point Likert scale) indicating a strong relationship between the independent variables and the dependent variable, job satisfaction.
- 47% of adjunct faculty have received at least one degree from the University studied and these individuals reported a significantly higher level of job satisfaction at the University as opposed to those who had no degrees from that institution (p. = .0-5).
- Intrinsic and extrinsic variables (as categorized by Herzberg) were analyzed as to their potential effect on job satisfaction. Of the independent variables studied, only two, both extrinsic, were found to be significant in predicting job satisfaction: salary and supervision. This finding was the same for the grouping of all adjunct faculty and those adjunct faculty teaching solely online.

  The anticipated differences in job satisfaction when one controlled for the type of course taught (quantitative or qualitative) did not materialize. While minor

differences were observed, and the standard deviations in four of the five cases analyzed were present, significant differences were not.

Additional Findings

While chapter four employed inferential statistics to analyze the three research questions thereby providing valuable, empirical, insights into the main concerns of the study, additional information potentially quite useful to administrators may be gleaned from a review of response rates to particular survey questions. This section looks at a number of those questions, reporting the percentage of respondents who chose either "agree" or "strongly agree" (Likert scores of four or five). Where reverse coded responses are appropriate ("disagree" or "strongly disagree" – Likert scores of two or one) those are included.

Obviously since this is a study in job satisfaction, that responses to the survey questions involving that topic should be of considerable interest. Table 28 contains two of the survey questions pertaining to job satisfaction among the adjunct faculty.

Table 28

Job Satisfaction

Survey Question	Agree	Strongly Agree	Combined
I am satisfied with my job teaching as an adjunct faculty member at this University	45.85%	36.68	82.53%
I am very proud to tell others that I teach at this University	37.82%	45.56%	83.38%

Only one individual of the 349 respondents "strongly disagreed" with the first, and perhaps the most important question in the survey. As a quality check on the nature of the survey responses, a negatively question pertaining to satisfaction (phrased "dissatisfied with certain aspects of my job") resulted in a combined percentage (disagree and strongly disagree) of 68.10%, a result that should be expected.

The results of the multiple regression reported in chapter four indicated that two of the eight independent variables, supervision and salary, were significant in predicting job satisfaction. Table 29 reports percentage responses for those two items.

Table 29

Supervision and Salary

Survey Question	Agree	Strongly Agree	Combined
My immediate supervisor is available to me when I need assistance	32.56%	56.48%	89.04%
I feel comfortable requesting assistance from my Program Chair or Dean when I have a question	29.43%	59.71%	89.14%
I feel that I am well compensated for my teaching	31.90%	6.32%	38.22%
I am paid fairly for the amount of work I do to teach courses	33.62%	5.46%	39.08%

Those in supervisory positions at the University should be pleased at the first two results. Interestingly these two questions invoked the lowest "neutral" scores (Likert score = 3) of any question in the survey, 6.05% and 7.14% respectively.

On the other hand, salary is not nearly as popular with the faculty both in terms of feeling well compensated, but perhaps more importantly the sense of being paid fairly. Considering, as was discussed in chapter two, that this University is approximately 25% national average in adjunct faculty compensation, this is a result that should be monitored, but it does not seem to have a profound effect on the overall level of job satisfaction reported in Table 28.

Adjunct faculty are teachers, so it should not be surprising that they like what they do as Table 30 reflects. The second question is negatively worded and its result is appropriate given the response to question one.

Table 30

The Work Itself

Survey Question	Agree	Strongly Agree	Combined
I enjoy teaching courses	16.33%	81.92%	98.25%
I would prefer to do work other than teaching	5.75%	1.72%	7.47%

The ability or opportunity of adjunct faculty to meet or interact with one another is difficult, especially as adjunct faculty teaching online may be well removed from the main campus. Table 31 reports the rather conflicting results of two survey questions pertaining to interpersonal relations.

Table 31

Interpersonal Relations

Survey Question	Agree	Strongly Agree	Combined
My relationship with fellow adjunct faculty is rewarding	31.03%	13.22%	44.25%
I have little or no interaction with other adjunct faculty	35.71%	20.57%	56.28%

One could assume from the above results that some adjunct faculty find their relationships with fellow adjuncts rewarding if they never have to meet! Perhaps the answer involves the high neutral percentage question one reported, 44.83%, whereas the second question's neutral percentage was far lower, 11.71%. Apparently, this is an issue some faculty members find difficult.

In Herzberg's interviews, his variable category: company policy and administration issues were the most often mentioned topics by respondents. Table 32 includes two survey questions. It should be noted that in the Cronbach analysis, the second question was eliminated from analysis in chapter four. It is reported here for its informational content.

Table 32

Company Policy

Survey Question	Agree	Strongly Agree	Combined
University policies that affect me as an adjunct faculty member are satisfactory	54.02%	19.83%	73.85%
I would prefer to teach more courses than I am allowed by policy (10 courses) to do	20.98%	26.72%	47.70%

The results of the second, more specific, question may be related to the fact that 41.55% of adjunct faculty, when asked, "Are you actively considering teaching for another or an additional higher education institution?", replied that they were.

The final series of survey questions were directed specifically to those adjunct faculty members with online teaching experience. Again, combining the responses "agree" and "strongly agree" revealed the following (rounded to full percentages):

- 30% were concerned with receiving lower course evaluations in online courses compared to face-to-face courses (21% neutral)
- 46% report a higher workload with online courses (19% were neutral)
- 34% were more satisfied teaching online (26% neutral)
- 36% found it more difficult to motivate students in an online course (28% disagreed or strongly disagreed)
- 40% were concerned with academic dishonesty

- Not factored into the above results is the fact that in a number of online courses (especially quantitative courses) textbook publisher supplied software (My Math Lab, My Accounting Lab, for example) are quite effective in reducing faculty workload in course preparation and grading. Nevertheless, nearly half the faculty reported a higher workload with online classes
- The results of the survey questions pertaining to online instruction while not startling, still present issues for administrative discussion as nearly one third of the responding faculty, those actively involved with online instruction, were more satisfied teaching in the distance learning format.

Summary of Additional Findings

Overall, the responses were quite positive with 89% of respondents pleased with supervision which contributes to the overall job satisfaction of 82.5%. 98% enjoy teaching and nearly 48% would like to teach more.

Two areas of possible concern are the adjuncts relationship with one another, with only 44% finding interpersonal relationships rewarding and 56% reporting little or no involvement with fellow adjuncts, and salary, both in absolute terms and in a sense of fairness saw the lowest percentages of positive faculty feedback with 38% to 39% responding favorably to salary questions.

CHAPTER FIVE

DISCUSSION

The purpose of this study was to research the sources of job satisfaction and dissatisfaction of adjunct faculty, with a particular emphasis on those adjunct faculty teaching in the online or distance learning modality, and from that research develop benchmarks – understandable metrics – that could be used to illuminate areas where possible intervention or adjustment might prove beneficial. Such benchmarks could later be used, perhaps several years hence, to see quantitatively if those actions were indeed helpful in increasing the levels of job satisfaction. In the current academic vocabulary, in other words, was the university able, in the area of job satisfaction among its adjunct faculty, to "close the loop".

This chapter follows the following organization:

- Review of the Process
- Summary of the research results from Chapter 4
- Recommendations based upon the findings
- Recommendations for future study
- Limitations of the study
- Conclusion

Review of the Process

The study's survey was constructed of a blend of sources. Previously published surveys, one by Dr. Jeffrey Hoyt of Brigham Young University and another by Dr. Doris Bolliger of the University of Wyoming, formed the basis of the survey. Additional survey questions were developed by the researcher as a result of the literature review. Twenty three survey questions were then organized by topics based upon the work of Frederick Herzberg in his studies of job satisfaction and an additional eight questions followed, these pertained to online instruction. A Likert scale (1-5) was utilized for respondent answers for these 31 questions. The survey concluded with 11 demographic questions.

The survey was initially reviewed by three subject matter experts resulting in the rewording of several questions. A pilot survey was distributed to 24 full-time faculty members - 18 responded. As a result of the pilot and the Cronbach alpha analysis, several questions were eliminated (resulting in the 31 Likert questions mentioned above).

The University's Department of Institutional Research provided the listing of the 2,000 adjunct faculty members and these individuals were provided the survey, developed through Survey Monkey, by email. The survey was available for two weeks. 350 adjunct faculty members completed the survey for a response rate of 17.5%. The survey results were downloaded to SPSS for analysis.

Summary of Research Results

Research Question One:

Is there a relationship between the overall level of job satisfaction and the following independent variables: teaching modality (online compared to face-to-face); demographic and background variables (gender, experience [years teaching], college within the university; if a degree was granted by subject university).

The study employed seven independent variables: modality, gender, years teaching, college association, degree from the subject University, age, and the number of courses taught, to ascertain their possible effect on the dependent variable, job satisfaction. It was found that regardless of the independent variable studied, the relationship between that variable and job satisfaction was strong (each mean value exceeded 4.0 on a 1-5 Likert scale.

Seven hypotheses were examined, testing for significant differences, utilizing the dependent variables cited above. In only one case were the results deemed significant. If the survey respondent received a degree from the subject university (and 47% of the respondents had), those individuals experienced a higher degree of job satisfaction compared to those who did not.

Research Question Two:

To what extent do intrinsic (motivation) or extrinsic (hygiene) variables as categorized by Herzberg affect job satisfaction of online adjunct faculty?

The work of Frederick Herzberg provided the theoretical framework for the study and was utilized exclusively in this question. Herzberg's model of the factors affecting job satisfaction divided those factors into two groups. One he categorized as

"motivators" (intrinsic variables), those areas that come from within the individual: achievement, recognition, the work itself and responsibility. These factors in Herzberg's view were "satisfiers" and had a direct link to higher levels of job satisfaction. The second group he termed "hygiene" factors, items that were from outside (and therefore beyond the control of) the individual: company policies and administration, supervision, salary, interpersonal relations, and working conditions.

Two related hypothesis pertaining to the Herzberg factors were analyzed via multiple regression: were intrinsic and extrinsic (independent) variables significant in predicting job satisfaction among all adjunct faculty at the University, and, using the same intrinsic and extrinsic variables, were they significant if one limited the adjunct faculty pool to those teaching in the online modality.

The statistical analysis revealed the following: in both faculty groups, the independent variables were strong predictors of job satisfaction. In group one, all adjunct faculty, 67.9% of all factors that could affect job satisfaction were accounted for by the independent variables studied ($R^2 = 67.9\%$). Limiting the adjunct faculty population to only those teaching online raised the percentage to 69.8% ($R^2 = 68.8\%$).

Looking at the independent variables within the regression, in both groups, two variables were found to be significant predictors of job satisfaction: supervision and salary. It is important to remember that the survey questions pertaining to the variable supervision asked if one's immediate supervisor was available when needed and cared or had interest in one's success as an instructor. Likewise the variable salary was a function of whether or not the individual felt not only well compensated for teaching, but that they

were paid fairly for their efforts. Salary fairness, not simply the amount of salary, was a concept encountered in in the literature's discussion of salary.

Research Question Three:

To what extent does a significant difference exist in: overall job satisfaction, perceived workload, preparation time, concern for student cheating, and perceived student skills, between online adjunct faculty teaching qualitative courses and those teaching quantitative courses?

In this researcher's review of the literature pertaining to faculty satisfaction, one area that had not been studied was whether or not they type of course, quantitative or qualitative, affected job satisfaction. This was true for full-time faculty, adjunct faculty, and adjunct faculty teaching online. This apparent gap in the research was the stimulus for research question three. (Within the concept of full disclosure, it should be mentioned that the researcher teaches quantitative courses.)

Five hypotheses were examined questioning whether or not significant differences were evident between those teaching quantitative vs. qualitative courses within the online modality in the following dependent variables: overall job satisfaction, perceived workload, course preparation time, concern for student cheating, and perceived student motivation and skills. In all five cases it was not possible to reject the null hypothesis – the differences between those teaching quantitative vs. qualitative courses was not significant (significance level = .05).

Some differences were noted, however. Overall job satisfaction was slightly higher among the qualitative faculty, while perceived workload and preparation time were found to be higher within the quantitative faculty. Somewhat surprisingly,

academic dishonesty was more of a concern among qualitative faculty, but it was noted that this could be more an issue of plagiarism in qualitative courses as compared to cheating on quantitative exams.

Recommendations Based Upon the Findings

When considering the results of the regression analysis for research question two, two variables were found to be significant in predicting job satisfaction: supervision and salary. Looking first at satisfaction, it is also noted that 89% of adjunct faculty had favorable opinions of their supervisions both in terms of the supervisors taking an interest in then and being available when the faculty member needed assistance. It is important that these results be communicated to the supervisors, the Chairs and Deans, so they clearly understand how important their involvement is to the adjunct faculty member. Often in reports, negative results are reported; items that need to be fixed, while the positives may be overlooked and possibly forgotten. When something is working, as it clearly is here, is should be reported and reinforced.

Salary, on the other hand, is an issue worth close monitoring. Of the eight intrinsic and extrinsic variables studied, salary had the second lowest mean score (the lowest being interpersonal relations) at 2.84. Additionally only 39% of adjunct faculty felt they were being paid fairly. It is also noted that this University compensates their adjunct faculty at a level that is approximately 25% below the national average. When one couples this information with the fact that 41% of adjunct faculty reported they are actively considering teaching for another university and nearly 48% wanted to teach more classes than is currently permitted, in the era of online teaching the potential for the loss of experienced adjunct faculty should be a cause of concern. It is also observed that 24%

of the adjunct faculty are 61 years of age or older, indicating the potential loss to retirement within a fairly short period of time.

Interpersonal relations was the lowest scoring independent variable (mean = 2.82) in the multiple regression where job satisfaction was the dependent variable. In addition, 56% of the adjunct faculty reported little or no interaction with fellow adjunct faculty. The University should explore ways to develop more interaction among their adjunct faculty and publicize the activities of these adjuncts. These efforts may well be considered "low hanging fruit" as these efforts may be fairly low cost.

Recommendations for Further Study

This study aimed to develop benchmark metrics. As such, it is recommended that several years from now, perhaps three, this study's survey be administered again as a means of monitoring job satisfaction progress. This study and its survey is generalizable. Other institutions of higher learning could also employ this survey and compare its metrics to the ones reported here, with follow-up surveys to monitor progress.

This study's survey contained no open ended questions. In fact several survey respondents contacted this researcher indicating they would have appreciated the opportunity to provide written comments. Providing the respondents the ability to provide written comments was deliberately omitted from this study. Again the aim was to obtain quantifiable benchmarks for both current and future use and in consideration of that intent written comments would provide no purpose. However, it is understood that written comments and indeed focus groups could provide valuable insight to specific issues identified in this report. Therefore, it is recommended that in any area that a

University's administration deems it important to investigate in more depth, focus groups be employed.

This study investigated only one of Michael Porter's five forces, forces Porter considers essential for an organization to understand from a strategic standpoint. It is noted, as reported in chapter two, that the Canadian province of Ontario did indeed utilize all five of Porter's forces in analyzing their higher education system. It is recommended therefore that future studies be considered at institutions of higher learning where one of more of the four remaining of Porter's topics be investigated.

Limitation of the Study

Technical difficulties impacted the percentage of survey respondents. After the survey closed, it was discovered that in some cases the survey was relegated to a respondent's spam or junk mail. It is not known how many of the surveys met this untimely digital demise.

This study confined itself to obtaining quantitative data only. Had the study employed a mixed method approach, utilizing qualitative methods of interviews or focus groups, additional information could have been obtained.

This study utilized a single university that does not employ entrance exams, where the majority of faculty are adjunct faculty, and tenure does not exist. Utilizing the results of this study for comparison purposes at universities of dissimilar description should be undertaken with caution.

Conclusion

Job satisfaction was found to be a function of eight variables, supervision, salary, working conditions, the work itself, company policies, recognition, interpersonal relations, and achievement. These variables accounted for 67% of the factors affecting job satisfaction with supervision and salary statistically significant. Adjunct faculty who themselves were graduates of the university studied reported a statistically significant higher level of job satisfaction compared to those who were not graduates.

Salary was found to be an issue of potential concern for university administration. Only 38% of the adjunct faculty felt they were well compensated for their work and 39% reported that they felt they were paid fairly. Since 42% of faculty responded that they were actively considering teaching for another or an additional university, salary comparisons among current adjunct faculty may become more pronounced.

Interestingly and surprising to this researcher, differences in job satisfaction between those adjunct faculty teaching quantitative courses compared to those teaching qualitative courses were found not to be statistically significant. Additionally, no significant differences between those two teaching groups were found in perceived workload, course preparation time, or student skills.

Specific results from faculty teaching online courses found that 46% had a higher workload in online courses, 36% found it more difficult to motivate students, 40% were concerned with academic dishonesty, and 30% were concerned with receiving lower student course evaluations in online courses.

Overall job satisfaction at the university that was the subject of this study is good and adjunct faculty are pleased with supervision. Nevertheless, this study also uncovered

potential issues (salary, interpersonal relations, a fairly high percentage of faculty looking to teach at other institutions, and factors specific to online courses) that should be monitored and perhaps studied in more depth utilizing adjunct faculty focus groups. A proactive, not reactive, approach would be the better strategic approach.

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Appendix A

Letter Inviting Survey Participation

Dear Faculty Member:

I am writing to ask for your assistance. I am a doctoral student at the University researching adjunct faculty satisfaction for my dissertation and you have been chosen to participate in this research.

Specifically, my study involves understanding the sources of satisfaction and dissatisfaction among adjunct faculty, but not only as an end in itself, important as that is, but rather as a matter of strategic importance for the long term viability of this University.

What I am asking is for you to complete the attached brief survey which should take approximately 15 minutes of your time, but will hopefully contribute much in assisting the University in understanding more fully their valued adjunct faculty.

The survey is comprised of 34, Likert scale (scale 1-5) questions (grouped into 10 sections) – no written responses are required – followed by 11 demographic questions that will be used only as group data for analysis purposes. All surveys and responses will be kept absolutely confidential. No names are requested and only myself and my two dissertation committee members will have access to the raw data and that data again is completely anonymous. It is also password protected. Following the completion of my dissertation this raw data will maintained (password protected) for three years and then destroyed.

Surveys conducted by students at Wilmington University must meet the stringent requirements of its Human Subjects Committee, the University's Institutional Review Board (IRB). Accordingly:

- Your participation is strictly voluntary
- Your responses will remain strictly confidential with regard to your identity
- No identifying information will be associated with yourself or any survey participant
- There are no direct personal rewards for participating
- Participation will in no way affect your occupation
- If you request, you may receive a copy of the results of this study by emailing me at: don.h.stuhlman@wilmu.edu.

Should you complete the survey, this will serve as your consent to participate in this study.

I sincerely appreciate your time and consideration and hope you will join me in what I believe can be of considerable value to the University and all adjunct faculty. If you have any questions please feel free to contact me at any time.

Thank you,

Donald Stuhlman

Appendix B

Survey Instrument

Dissertation Questionnaire for Adjunct Faculty

Key: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Section 1: Supervision	1	2	3	4	5	
My immediate academic supervisor (Program Chair or Dean) is available to me when I need assistance						
My immediate academic supervisor (Program Chair or Dean) lacks interest and cares little about my success as a teacher						
I feel comfortable requesting assistance from my Program Chair or Dean when I have questions						
Section 2: Salary	1	2	3	4	5	
I feel I am well compensated for my teaching						
I am paid fairly for the amount of work I do to teach courses						
I am dissatisfied with the pay I receive for teaching courses						
Section 3: Interpersonal Relations						
My relationship with fellow adjunct faculty is rewarding						
I have little or no interaction with other adjunct faculty						
Section 4: Working Conditions						
I am satisfied with the quality and caliber of the students in my classes						

	1	2	3	4	5	
Students lack motivation or the academic skills to succeed in my classes						
Section 5: Company Policy and Administration	1	2	3	4	5	
University policies that affect me as an adjunct faculty member are satisfactory						
I would prefer to teach more courses than I am allowed by policy (10 courses) to do						
It concerns me that University policies affecting academics or student issues are not always consistent in their application						
Section 6: Work Itself	1	2	3	4	5	
I enjoy teaching courses						
Section 7: Achievement						
I am putting in extra time and effort to become a better teacher						
My teaching skills and abilities have improved during my time teaching						
Section 8: Recognition						
I am often thanked for my teaching here						
Adjunct faculty are recognized for their teaching contributions to the University						
Section 9: Job Satisfaction	1	2	3	4	5	
I would recommend teaching at this University to other qualified people						
I would prefer to teach somewhere else instead of this University						
I am very proud to tell others that I teach at this University						
I am satisfied with my job teaching as an adjunct faculty member at this University						
I am dissatisfied with aspects of my job as a member of the adjunct faculty at this University						

Section 10: Online Instruction	1	2	3	4	5	Do not teach online
Academic dishonesty (cheating) on the part of some students is a concern for me in my classes						
I am concerned about receiving lower course evaluations in the online courses as compared to the traditional (face-to-face)						
I have a higher workload when teaching an online course as compared to the traditional one						
It takes me longer to prepare for an online course on a weekly basis than for a face-to-face course						
I am more satisfied with teaching online as compared to the traditional setting						
It is more difficult for me to motivate my students in the online environment than in the traditional setting						
The online students are actively involved in their learning						
My students are active in communicating with me regarding online course matters						

11. What is your gender?

    Female _____

    Male _____

12. What is your age?_____

13. How many years have you taught in higher education in this or any other institution?

    _____

14. For which College within this University do you primarily teach?

    _____

15. Did you receive any of your degrees from this University?

    _____

16. From Fall 2014 through Fall 2015, how many courses have you taught for this University? _____

17. Of the courses identified above, how many of those courses would you consider to be quantitative in nature? i.e. Accounting, Economics, Math, Statistics, Test and Measurements, Research Methods, Finance, etc. _____

18. From Fall 2014 through Fall 2015, how many college/university courses have you taught for a different institution? _____

19. From Fall 2104 through Fall 2015, how many 100% online courses have you taught for this University (do not include hybrid courses)? _____

20. Are you actively considering teaching for another or an additional higher education institution?

Yes _____

No _____

21. At this University, what best describes your teaching experience?

Undergraduate only _____

Graduate (includes doctoral) only _____

Both undergraduate and graduate _____

Appendix C

Permission to Use Survey of Dr. Jeffrey Hoyt

Jeffery Hoyt <hoytj@fau.edu>
Thu 9/4/2014 5:42 PM
Inbox
To:
Stuhlman, Don H. (College of Business);
You replied on 9/5/2014 12:42 PM.
Yes, that would be just fine. Wish you the best on your dissertation. I remember that process well. Jeff

Stuhlman, Don H. (College of Business)
Thu 9/4/2014 4:13 PM
Inbox
Dr. Hoyt,

I am a faculty member at Wilmington University in Delaware working on my dissertation (online adjunct faculty satisfaction) and have shared your articles on faculty satisfaction with my committee chair. She asked me to write to you immediately and ask your permission to use, with modifications, the survey (Table 1) from the Winter 2008 article that appeared in the Journal of Continuing Higher Education.

I hope this email finds you well and thank you for your consideration.

Donald H. Stuhlman
Chair, Finance, Economics and Professional Aeronautics
College of Business
Wilmington University
3282 North DuPont Highway
Dover, DE 19901

Appendix D

Permission to Use Survey of Dr. Doris Bolliger

Doris U Bolliger <dorisbolliger@gmail.com>
Thu 8/21/2014 3:20 PM
To:
Stuhlman, Don H. (College of Business);
You forwarded this message on 8/21/2014 3:46 PM.
Dear Don Stuhlman,

Thank you for contacting me and your interest in our work. You have my permission to modify and use the OISM instrument (and its questions) in your research. Best wishes for your dissertation study!

Kind regards,

Doris Bolliger

-
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