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A Case Study of the Differences in Ratings on Faculty Course Evaluations Based on Faculty Type in a Graduate Education Program at a Private College in New Jersey

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A CASE STUDY OF THE DIFFERENCES IN RATINGS ON FACULTY COURSE EVALUATIONS BASED ON FACULTY TYPE IN A GRADUATE EDUCATION PROGRAM AT A PRIVATE COLLEGE IN NEW JERSEY

BY

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ABSTRACT

The purpose of this study was to determine if there were statistically significant differences in ratings on faculty course evaluations based on faculty type in a graduate education program at a private college in New Jersey. The data were taken from faculty course evaluations for both the 2004-2005 and 2005-2006 academic years, which rated faculty on 15 distinct components of instructional quality. For the purposes of this study, faculty were placed into one of 3 categories: full-time, long-term adjunct (defined as any adjunct faculty member teaching for 5 years or more), and short-term adjunct (defined as any faculty member teaching for less than 5 years). One-way ANOVA testing was done in order to determine statistically significant differences. It was determined that full-time faculty rated consistently higher than both groups of adjunct faculty on those components of instructional quality related to the integration of technology into the classroom. Overall for both academic years, full-time faculty rated significantly higher than both long-term and short-term adjunct faculty on the effective use of e-mail, the effective use of films/videos/DVDs, the effective use of slides/PowerPoint/transparencies and/or overheads, and the effective use of the computer program Blackboard. It was also determined that long-term adjuncts rated significantly higher than full-time or short-term adjunct faculty on various other components of instructional quality, such as the clarity of learning objectives, relation of course activities to learning objectives, returning students' work in a timely, constructive manner, level of preparedness for class, and whether grades reflected a fair evaluation by the instructor. Two-way ANOVA testing was done using the results of a simple, 5-question survey that was administered to students along

with the summer 2006 faculty course evaluations. The survey asked students the purpose for which they were taking the course, their matriculation status, their cumulative GPA, the grade which they expected to receive in their course, and the number of hours they spent per week on outside work for the course. The results showed significant interaction effects between faculty type and 3 of the other 5 independent variables (purpose for which the student was taking the course, cumulative GPA, and the number of hours students spent per week on outside work for the course). Other significant findings included the fact that matriculated students rated their professor significantly higher than non-matriculated students on 6 different components of instructional quality, and students expecting to receive an "A" rated their professor significantly higher than those students who did not expect an "A" on 8 different components of instructional quality.

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"Indeed the snare has been broken, and we have escaped. Our help is in the name of the Lord, who made heaven and earth" (Psalm 124.7-8).

DEDICATION

This dissertation is dedicated to the memory of two very special people who I miss dearly and whom I know would be extremely proud if they were here today to see me receive my doctoral degree: my grandfather, Joseph Geraghty, Sr., and my uncle, Joseph Geraghty, Jr.

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Background

American institutions of higher education have greatly increased their reliance upon adjunct faculty during the last 30 years or so. According to National Center for Education Statistics (NCES) data, the percentage of adjunct faculty in relation to all faculty appointments nearly doubled between 1970 and 1998, increasing from 22% to 43% (NCES, 2001). Many reasons have been cited for this substantial increase, including the growth of community colleges, the need for colleges and universities to minimize the cost of faculty salaries and benefits, increased enrollment (especially of nontraditional students), the demand for faculty familiar with current practices in today's fast-paced world of constant flux, the supply-demand imbalance in the academic work force, and the assault on faculty tenure (Leslie, 1998; Schneider, 1999; Gappa, 2000; Louziotis, 2000). But overall, the flexibility and cost-effectiveness which adjuncts provide colleges and universities during difficult budgetary times is most likely the predominant factor (Louziotis, 2000). This trend has certainly had an impact on the field of education, as evidenced by Table 1:

Table 1

Percentage of Full-time and Part-time Faculty by Teaching Field

Teaching field	Percentage of part-time faculty	Percentage of full-time faculty
Education (general)	53.4	46.6

Table 1 (continued).

Teaching field	Percentage of part-time faculty	Percentage of full-time faculty
Educational administration	50.5	49.5
Pre-elementary	54.7	45.3
Elementary	51.0	49.0
Secondary	55.0	45.0
Other education	47.1	52.9

Note. Source: NSOPF (National Study of Postsecondary Faculty), 1999

Without question, there are many benefits associated with the national trend of growth in reliance upon adjunct faculty. First and foremost is the huge cost savings enjoyed by institutions that employ large numbers of adjunct faculty (Wallin, 2004). Adjunct instructors "typically cost less than an equivalent full-time instructor" (Mize, 1998, p. 9), mainly because they are paid lower salaries and usually do not receive benefits (Thompson, 2003). Second, "Part-time faculty provide an important level of expertise which allows the colleges to provide up-to-date instruction from persons currently employed in the field" (Mize, p. 9). This is especially important in educational administration programs, where adjunct professors typically teach many of the core courses, including school law, school finance, and educational leadership (Schneider, 2003). Third, "The ability to hire and dismiss without the extensive requirements of multiple lay-off notices and hearings is an important element in budget flexibility for the colleges" (Mize, p. 9). The fact that adjunct faculty do not qualify for tenure makes this possible. Fourth, part-time instructors are often "assigned to either introductory classes or

others which full-time faculty do not want to teach" (Mize, p. 9). This frees up the department's full-time faculty to teach more advanced courses in the curriculum (Mize). Finally, part-time status can be an enormous benefit for adjunct faculty themselves, as it affords them more time for their families and/or other jobs (Mize).

While one can plainly see the benefits that go along with the current hiring trend of adjunct faculty, there are certainly many drawbacks as well. First, when too many part-time instructors are employed in a single department (or overall at a college), it places a large onus on the backs of the full-time faculty members (Mize, 1998). In such a situation, "The burdens of advising students, curriculum planning, and governance must be handled by the remaining full-time instructors" (Mize, p. 9). Second, "Part-time instructors seldom participate in faculty seminars, team-teach with colleagues, collaborate on research, write grant proposals or engage in other elements which contribute positively to collegiate life and strengthen both the instructor and the program in which he/she is employed" (Mize, p. 9). Third, reliance on part-time faculty can result in declining faculty availability for students (Mize, 1998; Benjamin, 1998). The "lack of office hours for most part-time faculty...makes their job difficult for both the faculty member and for the student needing to speak with an instructor" (Mize, p. 9). Fourth, many researchers believe that the current trend toward hiring adjunct faculty is more negative than positive because of the way the faculty are treated (Holden, 1997; Mize, 1998). Despite the added flexibility and large cost savings, "too many part-timers lead to fewer job opportunities and lower salaries for new full-time, tenure-track faculty, thereby diminishing the quality of recruits" (Holden, p. 2063). Also of major concern are the "continued employment of part-time faculty for identical classes over many years with no

contract, tenure, or other secure commitment on the part of the college" (Mize, p. 9) and the "lack of benefits for part-time faculty or their families" (Mize, p. 9). Finally, "Few part-time faculty members are permitted full participation in academic decision-making" (Mize, p. 9). Typically, adjunct faculty are "not involved in hiring, curriculum planning, and program evaluation, which are central to shared campus participation and involvement" (Mize, p. 9).

Table 2

The Pros and Cons of Relying Upon Adjunct Faculty Organized by Issue

	Arguments in favor of the use of adjunct faculty	Arguments against the use of adjunct faculty
Finance issues	Institution experiences a huge cost-savings by staffing courses with adjunct faculty (Wallin, 2004)	Low salaries, lack of benefits, and virtually no job security can be difficult for adjunct faculty (Mize, 1998)
Instructional quality	Adjuncts play an important role by bringing their practical, real-world experience into the classroom (Schneider, 2003)	Adjuncts don't have as much time to prepare their classes nor do they have as much teaching experience as full-time faculty (Benjamin, 2003)
Availability to students	Adjuncts can make themselves just as available to students as full-timers; it has more to do with the individual than with faculty status (Carroll, 2003)	Adjuncts generally do not have an office or regular meeting hours, and are not as accessible to students as full-time faculty (Benjamin, 1998)

Table 2 (continued).

	Arguments in favor of the use of adjunct faculty	Arguments against the use of adjunct faculty
Tenure issues	The ability to hire and dismiss without multiple lay-off notices and hearings is an important element in budget flexibility for institutions (Mize, 1998)	The lack of a secure commitment on the part of the institution in hiring adjunct faculty is inherently unfair (Mize, 1998)
Student Advising, Curriculum Planning, & Governance Issues	Adjuncts can be just as involved as full-time faculty in addressing these responsibilities; it's how adjuncts are used that determines their role (Carroll, 2003)	Hiring too many adjunct faculty within a department places a large onus on the backs of the few full-time faculty who have to assume these responsibilities (Mize, 1998)
Grade Inflation	Faculty cannot get better-than-average evaluations by offering easier courses and awarding students higher grades than they deserve (Marsh & Roche, 2000)	Reliance on adjuncts contributes to grade inflation because adjunct faculty are concerned with getting positive student evaluations in order to get hired back (Sonner, 2000)

Table 2 (continued).

	Arguments in favor of the use of adjunct faculty	Arguments against the use of adjunct faculty
Faculty Evaluation Issues	There is research to suggest that there is little or no difference in teacher ratings between adjuncts and full-timers (West & Wollert, 2000)	Adjuncts are generally rated lower on student evaluations than full-time faculty (Klein & Weisman, 1996)

Although there are clear pros and cons involved with the hiring of adjunct faculty, what is still not clear is how they affect the overall quality of the education which the students receive. Many researchers have suggested that the overall impact of adjuncts upon education is a negative one. First, it has been suggested that the use of adjunct faculty contributes to grade inflation (Sonner, 2000). This happens because adjuncts are hesitant to give students lower grades (even if they deserve them) for fear of not being hired back. Second, an analysis done by Outcalt (2002)seemed to indicate that "part-timers tend to have less total teaching experience, teach fewer hours per week at the responding institution, use less innovative or collaborative teaching methods, and interact less with their students, peers, and institutions" (Outcalt, p. 44). Third, some studies have shown that students rate adjuncts lower than full-timers on faculty evaluation instruments (Klein & Weisman, 1996; Jackson, 1986; Dubler, 1996). Finally, Benjamin (2003) has stated that "there is ample evidence to show that, although contingent faculty provide instruction at less direct cost and are often able individuals, they are less well-qualified, less carefully selected and evaluated, less well supported, less involved in student

learning, and less well integrated into the learning community" (Benjamin, p. 108). While Benjamin acknowledges that these findings do not prove that adjunct faculty are doing substantial damage to student learning, he does state that "they are sufficient to shift the burden of proof to those who have heretofore defended the instructional effectiveness of contingent appointees based on anecdotal observations about their teaching commitment or derisive comments about the teaching commitment of tenure-track faculty" (Benjamin, p. 108).

Those who would defend the instructional effectiveness of adjunct faculty put forth numerous arguments. First, there is research to suggest that there is little or no difference in teacher ratings between adjuncts and full-timers on student evaluations. In a study by West and Wollert (2000), analysis of student course evaluations of undergraduate classes within the College of Education at East Tennessee State University produced no significant differences between adjuncts and full professors. A study by Hellman (1998) at Tulsa Community College also produced no significant differences between adjuncts and full-time faculty. Yet another study by Vitello (1985) showed that while there were differences in student ratings for adjuncts and full-time faculty, students evaluated the teaching of both groups as strong to outstanding.

Second, analysis of data collected through the 2000 Center for the Study of Community Colleges (CSCC) survey showed that the average time spent in various instructional practices between adjuncts and full-time faculty was essentially the same (Schuetz, 2002). Although the survey produced significant differences on other issues such as faculty availability to students and connection with colleagues and the institution, this was not the case with regard to instructional practice. Third, it has been cited that

adjunct faculty have an extremely positive effect on the education of their students because they "bring industry expertise, professional know-how, and workplace experience to the classroom" (Wallin, 2004, p. 373). Because of this factor, Lyons (1999) has identified adjunct faculty as "a priceless resource." Fourth, Carroll (2003) has written that it is unfair to characterize all adjunct faculty as not having enough time for students. Carroll argues that adjuncts would not work for the little pay they receive if they did not care about their students. Ultimately the determining factor in being available to students comes down to the commitment level of the individual, not whether the professor is full- or part-time.

With clashing data and convincing arguments on both sides, little has been resolved with regard to the differences in instructional quality between adjunct and full-time faculty. Benjamin (2003) acknowledges that in his latest article, and Leslie (1993) has admitted that the question of differences in instructional quality between adjuncts and full-time faculty was the one question that he and Gappa (1993) were unable to answer in *The Invisible Faculty*. Thus there is a definitive gap in the literature that needs to be filled.

Purpose of the Study

The purpose of this study is to examine data on differences in instructional quality between adjunct and full-time faculty as determined by students in a graduate education program at a private college in New Jersey. In order to carry out this study, it is necessary to define what is meant by "instructional quality." For the purposes of this study, instructional quality will consist of the following components: (a) clarity of learning

objectives; (b) relating activities to course objectives; (c) clarity of grading criteria; (d); preparation level of the instructor; (e) instructor's tolerance for diverse points of view; (f) whether the course is challenging; (g) availability of the instructor outside of class; (h) whether the instructor generally cares about students; (i) appropriate choice of readings; (j) grading and returning work in a timely, constructive manner; (k) whether grades reflect a fair evaluation by the instructor; (l) effective use of e-mail; (m) effective use of films/videos/DVDs; (n) effective use of slides, PowerPoint, transparencies and/or overheads; and (o) effective use of Blackboard. All of these components are important at both the undergraduate and graduate levels, though I will concede that some components may not be appropriate for certain types of courses. For example, courses such as student teaching and administrative internship can be considered anomalies in that they are structured very differently than the majority of courses. Both student teaching and the administrative internship are completed in practical settings outside the classroom and only meet occasionally for seminars. Without a regular lecture attached to the course, it is all but impossible to say that the instructor's manner of speaking, organization and sequence of the course material, use of examples to clarify course material, and so on are essential to the overall level of instructional quality. Therefore I have decided to omit these courses when carrying out this case study.

This will be a case study performed at a private college in New Jersey using data from student evaluations of both adjunct and full-time faculty over a 2-year period: 2004 to 2006. The researcher had considered using input from the faculty members' peers, department chair, and dean, but such input is impossible to obtain here. First of all, there is no dean of education at this college, nor is there a department chair for the Graduate

Education Program. Second, since there are so many adjuncts teaching in the program, many of the faculty members do not even know one another. Thus it would be virtually impossible to survey or interview faculty on the performance of other faculty in the program.

A case study is appropriate for this situation due to the dearth of studies on this topic. This will provide an opportunity to focus on depth and examine important data collected on faculty over a 2-year period. Therefore, one could say that this study is aimed at the micro level rather than the macro level. Previous studies done at the macro level (e.g., Gappa & Leslie, 1993) failed to determine whether there truly is a significant difference in instructional quality between adjunct and full-time faculty. A study like this done at the micro level would allow the researcher to focus solely on gathering data to analyze this question. The results of this study will undoubtedly yield a significant contribution to the body of research on the topic of differences in instructional quality between adjuncts and full-time faculty.

There are two basic reasons why I have decided to conduct a case study on a graduate education program in carrying out this research. First and foremost, there has been more enrollment growth in graduate education programs over the last 20 years than graduate programs in any other discipline. Between 1985 and 1986 and 2001 and 2002, the number of program completers for the master's degree in education in the U.S. increased from 74,801 to 136,579 according to the Integrated Postsecondary Education Data System (IPEDS). Not only was the 83% growth rate in graduate education programs higher than for any other discipline during this span in time, but the total number of

program completers for 2001 to 2002 (136,579) also ranked first among all master's degree programs.

Second, as previously stated, there is a conflict in the literature on the comparison of course evaluations for full-time and adjunct faculty. Some research has shown that students rate full-time faculty significantly higher than adjuncts; other research has shown that there is no significant difference in the students' perceptions of quality of instruction between the two groups, and still other research has shown that while there may be a slight difference in quality of instruction, students still rate both full-time and adjunct faculty quite favorably overall. The question then needs to be asked: "What accounts for the differences in the findings of these studies?" Although many factors probably contribute to this conflict (e.g., course vs. program outcomes, 2-year vs. 4-year schools, professional vs. liberal arts programs), the answer may well lie in the difference in the students' academic level (i.e., undergraduate vs. graduate). The study by West and Wollert (2000) is one of the more comprehensive ones, and overall it showed that there were no significant differences in course ratings for adjunct and full-time faculty. However, West and Wollert pointed out that there was one department in the College of Education that did produce significantly higher ratings for full-time faculty over adjunct faculty. This was the Educational Leadership/Policy Analysis (ELPA) department, and nearly all of the programs offered through ELPA are graduate programs. This begs the question, "Is there a significant difference in the quality of instruction between full-time and adjunct faculty in graduate education programs?" The research done by West and Wollert seems to indicate so, and these findings differ from the findings on the data collected at the undergraduate level. That is why I hope that doing a case study on a

graduate education program will go a long way in showing whether the findings of West and Wollert are normative or not.

Problem Statement

Although there is a great deal of literature on the pros and cons of hiring adjunct faculty, the question of whether instructional quality suffers in the eyes of students when a high percentage of adjuncts are employed in an academic program remains unanswered. This case study will focus on a graduate education program that employs adjuncts to teach approximately 70% of its courses and determine whether there are significant differences in instructional quality between adjuncts and full-time faculty according to students. Aggregate data will be used to determine how the influence of faculty type (i.e., full-time, long-term adjunct, or short-term adjunct) on student ratings of instructional quality compares with the influence of the academic year in which the ratings were recorded. Finally, the data from one academic term (summer 2006) will be used to determine how the influence of faculty status on student ratings of instructional quality compares with the influence of various student demographic variables.

Research Questions

The following questions will be used to guide this research:

Research Question 1: Are there significant differences in instructional quality between full-time and adjunct faculty teaching in the Graduate Education Program at this private college in New Jersey as measured by students on faculty course evaluations between the fall of 2004 and summer of 2006?

1a. Are there significant differences between full-time and adjunct faculty in terms of the clarity of their learning objectives in the courses they teach?

1b. Are there significant differences between full-time and adjunct faculty in terms of ability to relate course activities to the learning objectives?

1c. Are there significant differences between full-time and adjunct faculty in terms of the clarity of their grading criteria in the courses they teach?

1d. Are there significant differences between full-time and adjunct faculty in the level of preparedness for their courses, specifically in their ability to organize material and present it in a logical sequence?

1e. Are there significant differences between full-time and adjunct faculty in terms of their ability to create a learning environment in which diverse points of view are respected and can be freely expressed?

1f. Are there significant differences between full-time and adjunct faculty in terms of the level of difficulty of the courses they teach (i.e., are the courses challenging enough)?

1g. Are there significant differences between full-time and adjunct faculty in terms of their availability to students outside the classroom?

1h. Are there significant differences between full-time and adjunct faculty in terms of the level to which they care about their students?

1i. Are there significant differences between full-time and adjunct faculty in the level of appropriateness of their choice of readings in the courses they teach?

1j. Are there significant differences between full-time and adjunct faculty in terms of whether work is returned to students in a timely, constructive manner?

1k. Are there significant differences between full-time and adjunct faculty in terms of whether student grades reflect a fair evaluation by the professor?

1l. Are there significant differences between full-time and adjunct faculty in how effectively e-mail is used in the courses they teach?

1m. Are there significant differences between full-time and adjunct faculty in how effectively films, videos, and DVDs are used in the courses they teach?

1n. Are there significant differences between full-time and adjunct faculty in how effectively slides, PowerPoint, transparencies and/or overheads are used in the courses they teach?

1o. Are there significant differences between full-time and adjunct faculty in how effectively Blackboard is used in the courses they teach?

Research Question 2: Does the influence of faculty type (i.e., full-time, long-term adjunct, or short-term adjunct) on student ratings of instructional quality interact with the influence of the academic year in which the ratings were recorded?

Research Question 3: Does the influence of faculty type on student ratings of instructional quality interact with the influence of various student demographic variables (summer 2006 data only)?

3a. Does the influence of faculty type on student ratings of instructional quality interact with the influence of the student's matriculation status?

3b. Does the influence of faculty type on student ratings of instructional quality interact with the influence of whether the students are taking a course which counts toward their degree foundation, degree concentration, or some other area (e.g., electives or non-degree certification)?

3c. Does the influence of faculty type on student ratings of instructional quality interact with the influence of how many hours per week the students spend on outside work for the course (1-3, 4-6, 7 or more)?

3d. Does the influence of faculty type on student ratings of instructional quality interact with the influence of the grade which the student expects to receive in the class (either an A or a grade less than A)?

3e. Does the influence of faculty type on student ratings of instructional quality interact with the influence of the students' cumulative GPA in the program (3.5-4.0, 2.5-3.49, or not applicable due to being a new student)?

Null Hypotheses

The null hypotheses for this study are as follows:

Research Null Hypothesis RQ1: There are no significant differences in instructional quality between full-time and adjunct faculty teaching in the Graduate Education Program at this private college in New Jersey as measured by students between the fall of 2004 and the summer of 2006.

Research Null Hypothesis RQs 1a-1o: There are no significant differences between full-time and adjunct faculty in the ratings for any of these 15 components of instructional quality.

Research Null Hypothesis RQ2: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the academic year in which the ratings were recorded.

Research Null Hypothesis RQ3: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables.

Research Null Hypothesis RQ 3a: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the student's matriculation status.

Research Null Hypothesis RQ 3b: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of whether the students are taking a course which counts toward their degree foundation, degree concentration, or some other area (e.g., electives or non-degree certification).

Research Null Hypothesis RQ 3c: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of how many hours per week the students spend on outside work for the course (1-3, 4-6, 7 or more).

Research Null Hypothesis RQ 3d: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the grade which the student expects to receive in the class (either an A or a grade less than A).

Research Null Hypothesis RQ 3e: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the students' cumulative GPA in the program (3.5-4.0, 2.5-3.49, or not applicable due to being a new student).

Alternative Hypotheses

The alternative hypotheses for this study are as follows:

Research Alternative Hypothesis RQ1: There are significant differences in instructional quality between full-time and adjunct faculty teaching in the Graduate Education Program at this private college in New Jersey as measured by students between the fall of 2004 and the summer of 2006.

Research Alternative Hypothesis RQs 1a-1o: There are significant differences between full-time and adjunct faculty in the ratings for all of these 15 components of instructional quality.

Research Alternative Hypothesis RQ2: There is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of the academic year in which the ratings were recorded.

Research Alternative Hypothesis RQ3: There is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables.

Research Alternative Hypothesis RQ 3a: There is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of the student's matriculation status.

Research Alternative Hypothesis RQ 3b: There is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of whether the students doing the rating are taking a course which counts toward their degree foundation, degree concentration, or some other area (e.g., electives or non-degree certification).

Research Alternative Hypothesis RQ 3c: There is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of how many hours per week the students spend on outside work for the course (1-3, 4-6, 7 or more).

Research Alternative Hypothesis RQ 3d: There is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of the grade which the student expects to receive in the class (either an A or a grade less than A).

Research Alternative Hypothesis RQ 3e: There is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of the students' cumulative GPA in the program (3.5-4.0, 2.5-3.49, or not applicable due to being a new student).

Limitations

As with all research studies, the research study being proposed here is not without its limitations. First, the researcher is limited to looking at 2 years worth of data (2004 to 2006). The reason for this limitation is that the faculty senate revised the instrument used for course evaluations in 2004. Thus all previous course evaluations (i.e., before 2004) could not be used as they do not ask the same questions and thus do not measure the same variables as the current faculty course evaluations. Second, the researcher is limited to collecting data on the 15 variables listed on the current faculty course evaluation forms. Although the researcher will concede that there are other components of instructional quality that one may want to measure in a study such as this, the Institutional Review

Board would not grant permission to do so. This college has a policy that all faculty who teach a course can only be evaluated once for teaching that course (i.e., through the course evaluation forms handed out to students at the end of the course). Therefore, the researcher could not obtain permission to survey students on other faculty traits or interview alumni for this study. Third, it must be pointed out that there were no continuity measures for full-time faculty as there were for adjuncts. Adjuncts were separated into two groups (long-term and short-term) based on longevity, but this same measure was not used for full-time faculty. This is important because there are four full-time faculty in this study who have a great deal of teaching experience (over 100 years combined), while four others have all been hired within the past 5 years. Fourth, while the cut-off point between long-term and short-term adjuncts was 5 years, it must be communicated that there is a core group of six long-term adjunct faculty in the graduate education program who have each been rewarded for 20+ years of service to the department. Four of these six members teach the maximum course load per year that adjuncts are allowed (four courses in fall/spring plus additional courses in the summer). Thus this must be taken into account when analyzing the results of the study. Finally, the researcher concedes the possibility that students may have inflated their claims on the survey for demographic information (administered only to those students taking courses in summer 2006). This applies especially to those questions which asked students how many hours they spent per week on outside work for their course, what grade they expected to receive in their course, and what their cumulative grade point average was.

Summary

The purpose of this chapter was to introduce and explain the statement of the problem being researched in this study. It provided some background information on the topic, explained the purpose of the study, outlined the problem statement, and listed the research questions, null hypotheses, and alternative hypotheses. The next chapter will provide an extensive and thorough review of the literature on this research topic.

Chapter 2

Review of Related Literature

Introduction

As previously stated in chapter 1, the number of part-time faculty at colleges and universities in the United States has grown tremendously over the last 30 years or so. In fact, the percentage of part-time faculty in relation to all faculty appointments nearly doubled between 1970 and 1998, increasing from 22 % to 43 % (NCES, 2001). Many reasons have been cited for this meteoric rise in part-time faculty appointments, a rise which has had a substantial impact on the face of higher education in the United States. As shown in Table 1, the rise in part-time faculty has been particularly evident in the field of education. A number of scholarly writers have pointed out the positive effects of employing large numbers of part-time faculty, while others have been quick to outline the potential negative effects of relying too much on adjuncts. This chapter will present a review of the literature on this topic which will be composed of the following sections:

1. A review of *The Invisible Faculty* (Gappa & Leslie, 1993)
2. A review of scholarly articles outlining the pros of relying on adjuncts
3. A review of scholarly articles outlining the cons of relying on adjuncts
4. A review of scholarly articles discussing the use of adjuncts in graduate education programs
5. A review of scholarly articles discussing the validity of student course evaluations as a measure of instructional quality

6. A summary of the literature and my own conclusions based on the review of the literature

The Invisible Faculty

Still considered to be the landmark work on part-time faculty, *The Invisible Faculty* by Gappa and Leslie (1993) brought the issue of adjuncts to the forefront of research in higher education. The book is divided into two parts. The first part discusses the current environment for part-time faculty (or at least what was the current environment during the early 1990s), while the second part discusses the subject of enhancing education through the use of part-time faculty.

In part one, Gappa and Leslie (1993) cover seven different topics concerning the environment for part-time faculty in American higher education. First, they answer the question of who the part-time faculty are in higher education. According to Gappa and Leslie, part-timers are talented, dedicated, dynamic, and enthusiastic about teaching. However, they are very vocal about being treated as second-class citizens as compared to full-timers. Gappa and Leslie conclude that part-timers do not get adequate respect and attention from the institutions that they serve and that their potential remains largely ignored and untapped.

Second, Gappa and Leslie (1993) conduct a thorough examination of the employment profiles of part-timers. It is discovered that overall, "part-time faculty come from enormously varied backgrounds and life situations" (Gappa & Leslie, p. 63). Some part-time faculty have full-time jobs outside of higher education, while others do not. Some part-time faculty aspire to academic careers, while others do not. In the end, Gappa

and Leslie urge institutions to put forth a greater effort to get to know their part-time faculty.

Third, Gappa and Leslie (1993) analyze the numerous external forces affecting part-time employment in higher education. They show that "court decisions, state laws affecting employees' rights to benefits, and collective bargaining contracts are, to some extent, dictating how part-timers will be used and treated" (Gappa & Leslie, p. 91). Moreover, accrediting agencies, state boards, internal and external program reviewers, and national faculty unions all seem to be in favor of controlling the number of part-time faculty employed in higher education (Gappa & Leslie). Unfortunately, a number of institutions are forced to rely heavily on part-time faculty due to budget constraints and planning realities (Gappa & Leslie). Thus Gappa and Leslie believe that part-time faculty are here to stay and should be treated as "a substantial and permanent part of the academic profession" (p. 91). Finally, higher education is in need of "fair and equitable policies" that will enable part-time faculty to "play constructive roles in providing quality education" (Gappa & Leslie, p. 91).

Fourth, Gappa and Leslie (1993) take a look at financial issues affecting the use of part-time faculty. Fiscal crises, changes in enrollment, and inadequate state budget appropriations are the major financial catalysts for the growth in the use of part-time faculty (Gappa & Leslie). Overall, Gappa and Leslie question "whether states can continue to guarantee access to high-quality post-secondary education without making the commensurate fiscal commitments to faculty (full- and part-time) who must produce that education" (p. 109). There is a definitive need for more clearly defined planning strategies and operating policies regarding the use of part-time faculty (Gappa & Leslie).

Institutions must analyze what is needed in order to make sure that part-timers have the support they need to succeed in the classroom (Gappa & Leslie). They also need to decide whether part-timers will receive long-term commitments from the institution (especially those who teach vital components of the curriculum), what strategies can be implemented to attract the best part-time teachers, and who should be involved in making decisions regarding these issues (Gappa & Leslie).

Fifth, the questions of when and why part-timers are employed in higher education are explored. Ultimately, it is determined that "planning for the use of part-time faculty is critical to their ultimate success" (Gappa & Leslie, 1993, p. 140). Planned use of part-timers "derives from a clear statement of mission and from a common view of why and how part-time faculty can contribute to the mission" (Gappa & Leslie, p. 140). According to Gappa and Leslie, academic quality is not necessarily related to the numbers of part-time faculty employed at an institution, but rather it is "a product of institutional agreement about the proper use of part-timers and the adoption of policies, practices, and monitoring systems to ensure that part-time faculty are indeed employed for the reasons the institution espouses" (p. 140). Given the growing numbers of part-time faculty in American higher education, "it is critical that institutions acknowledge part-timers' increasingly important role in teaching and adopt models of planned use appropriate for their particular circumstances" (Gappa & Leslie, p. 140).

Sixth, Gappa and Leslie (1993) discuss employment policies and practices regarding part-time faculty. Overall, policies and practices vary greatly from institution to institution. Still, regardless of the institutional position, Gappa and Leslie found that "the key to effective implementation was the department chair" (p. 178). When the chair was

concerned about improving the situation for part-time faculty, Gappa and Leslie found that part-timers seemed more satisfied and fulfilled in their work. But when the chair was unconcerned and saw part-timers as nothing more than "temporary buffers against fiscal stringency," the part-time faculty were far more vulnerable to being exploited (Gappa & Leslie). In concluding this section, Gappa and Leslie emphasize three key components in treating part-timers fairly and equitably: "Institutions must assert control and develop sound policies and practices for employment, they must recognize the pivotal role of department chairs in implementing whatever policies are developed, and they must focus on treating part-timers as an integral part of their faculty rather than as peripheral and temporary workers" (p. 178).

In concluding the first part of the book, Gappa and Leslie (1993) treat the issue of participation in the academic community by part-time faculty. It is clear that the integration of part-time faculty is taken very seriously at some institutions, but not at others (Gappa & Leslie). Gappa and Leslie were able to discern four clear differences that emerged between those institutions that had made significant progress in integrating part-time faculty and those that had not. First, "Attitudes of central administrators and department chairs help to establish a climate in which part-timers feel that their efforts are appreciated and that they have access to decision-makers" (Gappa & Leslie, p. 213). Second, "Conducting a formal orientation for part-timers is both a symbolic and a practical gesture that helps them find their way into and around the institution with a sense that they are welcomed" (Gappa & Leslie, p. 213). Third, "Inviting part-timers to participate in department and institution decision-making gives them a feeling that they have a stake in both program and personal development" (Gappa

& Leslie, p. 213). Fourth, "Encouraging and supporting professional development activities expands part-timers' capacities and improves their morale and commitment" (Gappa & Leslie, p. 213). Gappa and Leslie conclude that those institutions that have made the effort to integrate their part-time faculty into the academic community clearly become stronger and more effective.

In part two of *The Invisible Faculty*, Gappa and Leslie (1993) focus on enhancing education through the use of part-time faculty. This second half of the book has five sections, the first of which is devoted to recognizing the changing context of academic employment. Here, Gappa and Leslie suggest substantial change in the options available in academia given the growth in the use of part-time faculty. They question "the viability of the existing tenure system because it requires that tenured faculty be subsidized with a work force that carries heavy loads at low pay" (Gappa & Leslie, p. 230). In addition, the bifurcation of faculty into classes ultimately has a negative effect on academic quality (Gappa & Leslie). Gappa and Leslie are quick to point out that this is not due to part-timers being any less qualified or capable, but rather "a direct result of institutional practices that deny part-time faculty the basic conditions under which good teaching can take place" (p. 230).

Second, Gappa and Leslie (1993) examined the use of part-time faculty to achieve educational objectives. They came to realize that the use of part-time faculty was simply out of control at those institutions that were not taking a proactive approach toward faculty staffing needs. In order to optimize the use of adjuncts in achieving educational objectives, Gappa and Leslie suggest that institutions "clarify how part-timers contribute to its educational mission, develop a faculty staffing plan with the participation of part-

timers, better assign responsibility and delegate authority for implementation of the plan, more systematically gather pertinent data on its part-time faculty, more effectively assess the costs and benefits of employing part-timers, and regularly review and evaluate whether the use of part-time faculty supports the mission" (p. 243).

Third, Gappa and Leslie (1993) offer helpful hints for developing fair employment policies and practices regarding part-time faculty. Part-timers must be treated fairly and equitably, and part-time faculty should be allowed to have input in the formation of the very employment policies that affect them (Gappa & Leslie). The population of part-time faculty is so varied that no one model for employing them will work, thus each individual institution needs to formulate its own specific policy for meeting the needs of its part-time faculty. Gappa and Leslie conclude that institutions can do a lot more to ensure that part-timers are treated fairly and must do a lot more in order to safeguard the quality of their programs.

Fourth, Gappa and Leslie (1993) advocate "investing in conditions that support the efforts of all faculty members" (p. 276). Despite doing a significant amount of teaching at most institutions, part-timers are "more often viewed as consumables than as capital investments" (Gappa & Leslie, p. 276). Department chairs are once again the key leverage point in all of this, "and they must have the awareness, knowledge, and desire to work closely with full- and part-time faculty alike to ensure that part-timers do have real opportunities to grow and develop into valuable employees" (Gappa & Leslie, p. 276). The main point made in this section is that part-time faculty are a valuable resource and institutions need to further invest in their capabilities in order to reap the benefits of an improved teaching and learning process (Gappa & Leslie).

Finally, Gappa and Leslie (1993) conclude their landmark work with a chapter titled, "From Invisible to Valued: Creating a New Reality for Part-time Faculty." Though uncovering exploitative conditions under which part-time faculty work, Gappa and Leslie are hopeful in the courageous attempts to right the system at various institutions. While applauding those institutions that have progressed in creating better conditions for part-time faculty, Gappa and Leslie hope that those institutions which have not changed might use their recommendations as a starting point for taking small steps toward a better way of doing things. The main point of the book is that part-time faculty can be an important resource if they are used properly and treated fairly, if the institution invests in them and cultivates their talent, and if they are integrated into the academic community. Ultimately it is academic excellence which is at stake, and academic excellence "can only be ensured when the best faculty members, both full- and part-time, are working closely together" (Gappa & Leslie, p. 285).

The Pros of Relying on Adjunct Faculty

According to Mize (1998), there are at least five major advantages to employing part-time faculty. First, "Some faculty prefer part-time work in order to be more available for their families and/or other jobs" (Mize, p. 9). This may be especially true in the case of faculty who are married and whose spouses have high-paying jobs. Money and benefits are not nearly as important to them as having time for their families. It is also true in cases of those who like to teach but are not particularly interested in research or service to the college community. Such faculty would rather have a full-time job outside of higher education and teach college courses on a part-time basis than have full-time

status as an instructor. Thus they are able to avoid the burdens of research and publishing that are ordinarily required to attain tenure. Second, "Part-time faculty provide an important level of expertise which allows the colleges to provide up-to-date instruction from persons currently employed in the field" (Mize, p. 9). Full-time faculty who are not currently working in the field can lose touch with modern practices, which would render their instruction as less effective. Third, "Part-time instructors typically cost less than an equivalent full-time instructor" (Mize, p. 9). There is no question that colleges and universities can save substantial amounts of money by relying heavily on adjunct faculty, since adjuncts typically receive much lower salaries and less benefits than full-timers. Fourth, "The ability to hire and dismiss without the extensive requirements of multiple lay-off notices and hearings is an important element in budget flexibility for the colleges" (Mize, p. 9). Although definitely a plus for the institution, one has to question whether this allows colleges and universities to dismiss adjuncts for unjust reasons. Finally, "Often part-time instructors will be assigned to teach either introductory classes or others which full-time faculty do not want to teach, thus freeing full-time faculty for teaching the more advanced courses" (Mize, p. 9).

In identifying at least four distinct advantages to hiring part-time faculty, Banachowski (1996) expands on the points made by Mize. First, Banachowski notes the importance of the role of adjuncts in saving money for the institution. In recognizing the "environment of shrinking financial resources," Banachowski cites that "institutions of higher education are forced to seek alternative methods for delivering costly services" (p. 51). Part-time faculty "are less costly than full-time faculty in both salary and

benefits...are paid one-third of the salary of full-time faculty, have limited rights to raises, and are rarely promoted to higher-paid, more prestigious positions" (p. 51).

Second, relying on adjunct faculty "increases institutional flexibility in matching the demands of varying enrollments" (Banachowski, 1996, p. 51). Adjuncts are contracted to teach at the beginning of an academic term and must have their contract renewed in order to teach in a subsequent term (Banachowski). Therefore, the institution can easily adjust the number of adjuncts needed for an academic term in case enrollment drops steadily.

Third, using part-time faculty can be extremely advantageous because they bring "real-world vocational experience" to the classroom (Banachowski, 1996). Those who are in favor of this argument contend that adjuncts enhance students' academic preparation for various professions (Banachowski). Banachowski even notes the specific examples of how the Pratt Institute employs practicing professionals extensively to teach in the fields of engineering and architecture. They believe that "the value of value-adding roles of professionals who are part-time faculty are most apparent when it is understood that they are a primary source by which appropriate norms, values, and information are inserted directly into the curriculum" (Banachowski, p. 52). This helps to ease the transition of students into the world of practice.

Fourth, Banachowski (1996) notes that individuals themselves benefit from teaching part-time. Supposedly, "Professionals in fields other than teaching are grateful for being able to teach part-time because of the prestige and fulfillment it adds to their work lives" (Banachowski, p. 52). According to Banachowski, a questionnaire administered by Cohen to numerous adjuncts at Prince George's Community College in

Maryland showed that "personal satisfaction and acquiring teaching experience for career purposes were their primary reasons for doing part-time teaching" (p. 52). Thus it is clear that adjuncts see part-time teaching as a way to eventually secure full-time employment. Banachowski points out that surveys done at Pima Community College and the College of the Canyons in Valencia, California, revealed that more than half of all adjuncts at each college hoped to one day teach full-time.

In 1999, Lyons wrote an article in which he referred to adjunct instructors as a "priceless resource." Lyons outlined a number of reasons to justify this claim. First, it is noted that adjunct instructors are employed full-time "in fields critical to the missions of our institutions" (Lyons, 1999, p. 4). They become part-time teachers mostly for "the opportunity to share their expertise or the pursuit of new social or professional contacts" (Lyons, p. 4). They tend to "demonstrate a passion for their field that brings the subject matter alive" (Lyons, p. 4). Because they are trained in the current practices of their field, they bring with them a great deal of credibility and help bridge the gaps in students' minds between the academic arena and the "real world" (Lyons). In the long run, "Successful adjunct instructors often provide the college with linkages to critical community resources that would be nearly impossible to achieve otherwise" (Lyons, p. 4).

Second, Lyons (1999) points out that it is often the fault of the institution when adjunct faculty deliver low-quality educational experiences to their students in the classroom. It is not at all uncommon "for adjunct instructors to be given teaching assignments on short notice, with little overview of the course material and the institutional culture" (Lyons, p. 4). Therefore, it should not surprise anyone if an adjunct

stumbles after being placed in such a situation. Moreover, adjunct faculty generally teach in the evening and on weekends with little or no support system. Thus Lyons poses the question, "Should we not expect them to feel disconnected from the institution and lose some of their desire for re-upping for the following term?" (p. 4).

Third, Lyons (1999) states that "research indicates no significant difference between the quality of instruction they (adjuncts) deliver as compared with that of full-time faculty" (p. 4). Lyons believes that most adjunct faculty are highly motivated to succeed and that a basic investment in their development will enable them to make a significant contribution to the mission of an institution. In fact, Lyons helped initiate an adjunct faculty development program at Indian River Community College in Fort Pierce, Florida. The program consisted of four sessions of "instructor effectiveness training," and included such components as course planning, syllabus development, conducting an effective first class meeting, effective teaching and learning practices, and methods of evaluating the success of students and the instructor. Lyons cites the success of the program and firmly believes that investing in the ongoing development of adjuncts will help their value to appreciate.

In 2000, Fulton evaluated the many issues concerned with "the plight of part-timers in higher education." He begins by recognizing the numerous obstacles faced by adjuncts in their quest for success, such as poor salaries and burdensome workloads. Fulton cites that "part-time faculty generally earn no benefits, qualify for no development programs, and get no respect" (p. 38). Very few get an office of their own, and "fewer still have access to such perks as faculty discounts at the bookstore, an internet-connected computer, or a faculty locker at the gym" (Fulton, p. 38). The reasons for this unfair

treatment seemingly stem from financial concerns, and "college and university administrators get most of the blame for creating and continuing the practice of overusing and abusing part-timers" (Fulton, p. 38). This has all led to a culture in which many people question whether there are too many part-timers teaching in higher education. But according to Fulton, the question is not as simple as some might think.

Fulton (2000) suggests that "the issues of appropriate numbers of, and pay for, part-timers and quality of instruction associated with part-timers are more complex than many of the more vocal participants in the discussion have conceded" (p. 39). When answering the question of how many adjuncts are too many, Fulton responds that it depends on the individual institution, academic program, or situation. In other words, a general, all-encompassing rule of thumb on how many adjuncts should be employed cannot possibly exist. Fulton concedes that full-time faculty ought to teach as many sections as are available for them to teach in the core of an institution's offerings. Therefore, if a college is trying to teach sections with part-timers that could in fact be taught by full-timers, then the college is arguably using too many part-time faculty (Fulton). Still, Fulton acknowledges that "part-time or adjunct specialists should be hired to enhance program quality and to provide a variety of experiences for students" (p. 39). This simply makes sense from an academic point of view, especially in specialty areas such as art, physical education, music, and paralegal studies (Fulton).

A common argument against the use of adjunct faculty has to do with faculty availability to students. It has been suggested that adjuncts are often less accessible to students because they have full-time jobs outside of the college and generally do not have an office on campus. But Carroll (2003) has argued against this point, citing that adjuncts

do make time for their students and that contractual status has little to do with the level of commitment on the part of the instructor. According to Carroll, a part-time contract does not necessarily translate into part-time availability to students. Carroll lists a number of points to support her argument.

First, the argument that full-time faculty are more available to students due to a lighter teaching load is problematic. It is a blanket assertion that fails to account for the fact that full-time loads are bigger than adjunct loads at some large state systems and in community colleges (Carroll, 2003). Second, there is a fundamental difference in the job descriptions of full-time and part-time faculty members. Aside from teaching, full-time faculty "serve on committees, help with fund raising, manage departments, perform other sorts of administrative work...and of course they are expected to publish and do research" (Carroll, p. C4). This in turn often leaves them with little time for students at the end of the day (Carroll). Finally, giving time and attention to students (or for that matter, anyone else in our lives) ultimately comes down to the level of commitment on the part of the individual (Carroll). Thus it could be argued that you can find faculty who are committed to students and those who are not committed to students among both full- and part-timers. Carroll argues that adjuncts "have to be committed to students, or else we (adjuncts) wouldn't keep doing this work for the paltry pay we receive" (p. C4).

In 2004, Wallin acknowledged the major contribution of adjunct faculty to community and technical colleges. Wallin states that adjunct faculty are "often regarded by administrators and full-time faculty alike as 'second-class citizens,' not fully appreciated for the contributions they bring to the colleges and to the students they serve" (p. 373). But part-time faculty play a huge role in the success of community colleges, for

they "bring industry expertise, professional know-how, and workplace experience to the classroom" (Wallin, p. 373). Adjuncts also "provide an economic benefit to the institutional bottom line" (Wallin, p. 373). Because of the significant service they provide to community colleges, Wallin believes that adjunct faculty "should be recognized and valued as professional colleagues working in collaboration with full-time faculty and administrators to achieve the teaching mission of America's community colleges" (p. 373).

Illia and Rubin (2004) have cited the benefits of employing adjunct faculty in the educational fields of engineering and construction. The practice has become virtually necessary due to increasing enrollments in these areas of study coupled with massive budget cuts. Overall, it enables engineering and construction programs to "still encourage research and teach courses while generating some money at the department level" (Illia & Rubin, p.31). It also allows for the filling of gaps in certain specialty areas, since it is particularly difficult to match faculty to all courses in these fields (Illia & Rubin). The adjuncts themselves benefit a great deal as well, since creating and teaching new courses allows them to fulfill state continuing education requirements (Illia & Rubin). But perhaps most importantly, the practice of hiring adjuncts in engineering and construction programs means that "engineering and construction students aren't having to wait until their first job to have a one-on-one relationship with an industry practitioner" (Illia and Rubin, p. 31). This almost certainly gives them a jumpstart on their career and an immediate contact for future employment.

According to Pedersen (2005), it may be full-time faculty themselves who are serving as the catalyst for growth in the numbers of adjunct faculty. Pedersen

acknowledges that those who go so far as to defend the trend of hiring adjuncts have built many persuasive arguments. First, with the constant changes in employer requirements mandating the creation of new courses, "Adjunct faculty with the required skill sets to teach newly added courses...can be readily hired" (Pedersen, p. 4). Second, since burdensome procedures for dismissal are not in place for adjuncts as they are for tenured, full-time faculty, "Adjunct faculty can be dismissed with little more than a courtesy phone call" (Pedersen, p. 4). Third, employing large numbers of adjuncts gives institutions enormous flexibility in shifting resources, and they are "thereby not burdened with an underutilized full-time faculty in the humanities and social sciences" (Pedersen, p.4). Finally, "It must be acknowledged that some campus leaders directly benefit from a largely adjunct faculty; deans and division heads, in particular, enjoy far more discretion in the selection, employment, and retention of adjunct faculty than is the case with regular faculty" (Pedersen, p.4).

Pedersen (2005) goes on to state that while cost is an important (perhaps even the most important) factor in the growing numbers of adjunct faculty nationwide, full-time faculty themselves have undoubtedly contributed to this phenomenon. It is widely accepted that university faculty have three components to their mission: teaching, research, and service. But according to Pedersen, "While most university faculty have shown little or no interest in measuring the effectiveness of their teaching, they have very complex mechanisms for measuring and communicating their contributions to research and community service to state legislatures, policy makers, and nongovernmental organization funders" (p. 5). By accentuating their roles of research and service, full-time faculty effectively diminish their role as teachers. Thus Pedersen suggests that full-time

faculty "begin the process of first integrating the key functions of engaging students in their learning, meaningfully measuring the effectiveness of that engagement, and then holding themselves accountable- possibly through a process comparable to university tenure- for fostering predetermined levels of student growth" (p. 5). Only then might university administrators be provided with a "sound basis for employing full-time faculty in lieu of adjuncts" (Pedersen, p. 5).

A number of authors have discussed the benefits that adjuncts can provide their respective institutions if given the proper level of resources and support. First, Allen (2006) cites the importance of effective communication, that ideally "The message should tie the role the professor plays in student learning to the institution's higher standards for outcomes" (p. 3). This is because "The very definition of adjunct leads to dislocation and disconnectedness" (Allen, p. 3). Thus it is the role of the dean or department chair to link adjuncts to the institution, since the students' learning depends on it (Allen).

Next, Santovec (2004) likens the process of recruiting, hiring, and developing adjunct faculty to the sequence of steps one takes in climbing the rungs on a ladder. In order to be successful, "Each step of the process-recruitment, screening, hiring, training, course preparation, support, mentoring, and evaluation-must include a commitment to educational quality and adjunct retention" (Santovec, p. 5). If the institution fails to hold adjuncts to the same educational, professional, and scholarly requirements as full-time faculty, then its accreditation could be put at risk (Santovec). After interviewing, screening, and ultimately hiring new adjunct faculty, Santovec strongly recommends an orientation program that will accomplish two objectives: acquainting adjuncts with the

institution and assimilating them into the faculty. Santovec also suggests building a "teaching community," since "creating collaborative opportunities for interaction and professional exchange between adjuncts is one way of facilitating their development" (p. 7).

Finally, Fagan-Wilen, Springer, Ambrosino, and White (2006) call the support of adjunct faculty "an academic imperative." Focusing mainly on schools of social work, they cite that "the number of non-tenured faculty...has increased three-fold in the past 15 years, resulting in the almost equal use of non-tenure track and tenure-track faculty" (Fagan-Wilen et al., p. 39). In reviewing past literature, they also cite that studies have revealed equivocal results in examining the instructional quality of adjunct faculty (Fagan-Wilen et al.). But ultimately, the quality of adjunct faculty may be determined by the level of training and support they receive after being hired. That is why Fagan-Wilen et al. recommend specific support and training which includes the following: "curriculum development, tiered decision making for long-time adjuncts; formation of adjunct instructor committees; well-equipped offices and supplies; inclusion in departmental social events; having an 'Adjunct Appreciation Day'; and the concept of 'preferred adjunct' status for long-time adjuncts providing increased employment stability and benefits" (p. 43). Support could be further enhanced by hosting informal brown bag lunches for adjuncts, giving adjuncts direct access to the dean and associate dean from time to time, encouraging adjuncts to sit on faculty committees, assigning adjuncts a faculty mentor, establishing a teaching excellence award exclusively for adjunct faculty, and holding faculty symposia where adjuncts are invited to discuss important issues (Fagan-Wilen et al.).

The Cons of Relying on Adjunct Faculty

Although there are clearly a number of benefits associated with the reliance upon adjunct faculty, the literature identifies many drawbacks as well. Mize (1998) discerns at least seven clear disadvantages in the hiring of part-time faculty, any of which may impact the individuals, their students, and the institution. First, it is widely accepted that core courses should be taught by full-time instructors. Thus the assignment of part-time faculty to core courses is a clear disadvantage (Mize). Second is "the continued employment of part-time faculty for identical classes over many years with no contract, tenure, or other secure commitment on the part of the college or district' (Mize, p. 9). Third, part-time faculty are generally hired without any benefits either for them or for their families. Fourth, "The lack of office hours for most part-time faculty makes their job difficult for both the faculty member and for the student needing to speak with an instructor" (Mize, p. 9). Fifth, adjunct faculty are all too often excluded from participation in academic decision making. Typically, they are not involved in "hiring, curriculum planning, and program evaluation, which are central to shared campus participation and involvement' (Mize, p. 9). Sixth, "part-time instructors seldom participate in faculty seminars, team-teach with colleagues, collaborate on research, write grant proposals or engage in other elements which contribute positively to collegiate life and strengthen both the instructor and the program in which he/she is employed" (Mize, p. 9). Finally, "When too many part-time instructors are employed in a department or college, the burdens of advising students, curriculum planning and governance must be handled by the remaining full-time instructors" (Mize, p. 9).

Banachowski (1996) identifies at least three major disadvantages to employing a large number of part-time faculty. First, "Critics argue that increased use of part-time faculty harms full-time faculty by taking away full-time positions and extra pay for course overloads" (Banachowski, p. 52). Second, it is argued that adjuncts themselves suffer as a result of the over-reliance on part-time faculty for classroom teaching (Banachowski). Adjuncts experience major role ambiguity, and this level of ambiguity is supposedly associated with lower levels of role performance (Banachowski). Other researchers have also found that workers in ambiguous roles are generally less satisfied with their jobs, less committed to the organization, and more likely to resign their positions (Banachowski). Finally, Banachowski states that employing a large number of part-time faculty members is a major concern because it can possibly undermine the integrity of the teaching profession. This has to do with the majority of participants being in the teaching field only part of the time, which results in "the transformation of full-time posts into part-time labor" (Banachowski, p. 53).

In 1986, Jackson carried out a comparative study to determine the effectiveness of adjunct faculty in the Business Division at Fayetteville Technical Institute. The study was done to compare the effectiveness of full-time and part-time faculty in four distinct areas: evaluations from department chairs, student evaluations, grades assigned, and class attrition. Overall, the study was based on evaluation results, grades, and attrition rates for 37 full-time faculty and 47 part-time faculty teaching in the Business Division. Jackson's study yielded four interesting findings. First, "Students gave full-time instructors higher ratings than part-time instructors, with significant differences emerging with respect to knowledge of subject area, formal classroom presentation of material, knowledge of

teaching methods, and starting classes on time" (Jackson, p. 1). Second, department chairs rated full-time faculty a little bit better overall than part-timers, and a significantly higher percentage of part-timers were rated as not meeting their job requirements (Jackson). Third, adjunct faculty gave slightly higher grades than full-time faculty on the average (Jackson). Finally, full-time faculty were able to retain a higher percentage of students than part-time faculty (Jackson). Thus full-time faculty were rated as more effective than part-time faculty in each of these four areas.

Another study by Klein and Weisman (1996) explored the use of adjunct faculty in eight social work programs. In this study, Klein and Weisman analyzed the results of questionnaires that were returned from six deans/directors, 43 adjunct faculty, and 175 students at eight higher education institutions in the United States offering BSW and/or MSW programs. While the results of the questionnaires returned by the deans/directors gave clear indication that they valued their adjunct faculty (mostly for the contemporary practice they brought into the classroom), students clearly rated adjuncts less favorably than full-time faculty. Students evaluated faculty in three different areas: course quality, availability to students outside the classroom, and teaching skill. A 5-point Likert-type scale was used in the questionnaires to rate the faculty. Overall, "The mean differences between the full-time and adjunct faculty were .76 for overall course quality, .79 for availability, and .63 for teaching skill" (Klein & Weisman, p. 257). These differences were all statistically significant, giving clear indication that the students valued their experiences with full-time faculty more than their experiences with part-time faculty.

It has been argued that part-time faculty "depress salaries, discourage talented people from entering academia, and reduce the quality of education for undergraduates"

(Holden, 1997). In a joint statement issued by 10 learned societies, excessive reliance on part-time faculty was said to "degrade the academic environment" (Holden, p. 2063). While acknowledging that adjuncts make for "added flexibility and big cost savings," the statement also warns "that too many part-timers lead to fewer job opportunities and lower salaries for new full-time, tenure-track faculty, thereby diminishing the quality of recruits" (Holden, p. 2063). The way that part-time faculty are treated by the institutions that hire them not only hurts adjuncts, but everybody in academia (Holden). The "disparate personnel policies have created a multi-tier faculty...and a growing caste of untouchable workers whose careers are going nowhere" (Holden, p. 2063). Annalisa Crannell, an assistant professor of math at Franklin and Marshall College in Lancaster, Pennsylvania, has stated that while the problem is indeed worse in the humanities than in the sciences, it still exists to some degree in all academic disciplines (Holden).

Hickman (1998) has conceded that adjunct faculty are surprisingly prolific in publishing research articles and frequently better teachers than their full-time counterparts. He bases his theory on the fact that adjuncts do not have to worry as much about curriculum planning, research, and governance, and thus have more time to focus on their teaching. But Hickman also states that "the fact that adjunct faculty members have no time for their own intellectual development hurts the students in the long run because those faculty members end up falling behind in their fields—which inevitably affects what they teach" (p. 15). Adjuncts also "receive less institutional support—e-mail accounts, secretarial and computer services, peer review—than their full-time colleagues do" (Hickman, p. 15). Without such resources, Hickman contends that even the most talented of teachers are at a disadvantage. Finally, Hickman outlines how adjuncts are

seriously overworked, grossly underpaid, and are forced to worry about being reappointed from term to term. The lack of job security especially can cause adjuncts to develop a fear of teaching creatively, straying from the syllabus, teaching controversial works, or assigning low grades (Hickman). Good teachers need to take risks once in a while, but for adjuncts, such a venture is hardly feasible (Hickman).

According to Schneider (1999), the lack of job security for adjuncts often means that academic freedom is nothing more than a myth. Academic freedom violations of adjuncts are virtually impossible to track because so many lose their jobs on a spur of the moment and without any advance warning (Schneider). As the number of adjunct faculty grows to approximately half of all faculty appointments, this means that half of the professoriate is teaching without the protection guaranteed by academic freedom (Schneider). According to Schneider, "Adjuncts are getting dumped for things tenure-track scholars do with impunity—teaching controversial material" (p. A18). Schneider details three specific cases—one in which a part-timer was dropped for discussing pornography in an ethics course, another in which an adjunct was fired for deconstructing racist words in a communications course, and yet another in which an adjunct was fired for harassment after he mentioned anal sex and tampons in a pathology course. Although one of these three sued the institution and won his case, Schneider notes that "more adjuncts are losing when it comes to academic freedom—a worrisome trend now that they make up nearly 50 percent of the professoriate" (p. A18).

Another problem associated with the growing trend in the use of adjunct faculty is that of grade inflation. Although grade inflation is hardly a new problem, Sonner (2000) believes that it might be getting worse as colleges and universities rely more and more on

part-time instructors. Because adjuncts are easily replaced, Sonner argues that they face more pressure than full-timers to glean favorable evaluations from students. How do they accomplish this task? Sonner hypothesizes that adjuncts earn good evaluations by giving higher, potentially inflated grades. In order to test this hypothesis, Sonner conducted a study in which average class grades assigned by adjuncts were compared with average class grades assigned by full-timers over a 2-year period at a small public university. In the sample used by Sonner, 37% of the classes were taught by full-time faculty while 63% were taught by adjunct faculty. In all, a total of 7,610 grades were awarded during the 2-year period. A preliminary analysis of the data showed that the average grade in classes taught by adjuncts was indeed higher than the average grade in classes taught by full-time faculty (Sonner). While full-time faculty assigned an average grade of 2.6, adjunct faculty assigned an average grade of 2.8 (Sonner). Although the difference of .2 seems minimal, it is certainly enough to be statistically significant ($F = 16.41$, $p < .000$). Sonner controlled for numerous variables, including class size, instructor credentials, subject/discipline, and course level. Thus Sonner concludes that there are but three potential explanations for the statistically significant difference in average grades: (a) adjuncts teach better students; (b) adjuncts are better teachers and thus facilitate student learning, resulting in better grades; or (c) adjuncts merely assign higher grades for comparable work than do full-time faculty. Sonner is quick to dismiss the first two explanations, citing the size and diversity of the sample as well as the fact that they were taken from one student population. Thus the conclusion is drawn that the heavy reliance on adjunct faculty does potentially exacerbate the problem of grade inflation (Sonner).

A study by Schuetz (2002) comparing the instructional practices of full- and part-time faculty revealed that while the average time spent by full- and part-time faculty in most classroom practices is basically equivalent, other distinctions have been discovered. Schuetz was interested in whether the trend toward the increasing dependence on part-time faculty undermines or contributes to teaching effectiveness and student learning. Schuetz's analysis was based on the 2000 Center for the Study of Community Colleges (CSCC) survey of more than 1,500 faculty from over 100 community colleges nationwide. Seventy-one percent of the survey respondents were full-time faculty, while 29% were adjuncts. Schuetz notes that although full-time faculty were overrepresented in this sample, "the proportion of part-time and full-time faculty in the sample is similar to national norms on the proportion of instructional hours each group teaches" (p. 40).

The survey covered both teaching methods inside of the classroom and instructional practices outside of the classroom. For teaching methods, respondents were asked to estimate the percentage of class time spent on various instructional activities, such as the faculty member's own lectures, guest lectures, students' verbal presentations, class discussions, and so forth. For instructional practices outside of the classroom, respondents were asked questions such as how often they revise their syllabus, how often they revise their teaching objectives, whether they have prepared a multimedia instructional program for use in their course, and so forth. Analysis of survey results showed that while "average time spent in various classroom instructional practices was found to be essentially the same, other distinctions between part-time and full-time faculty instructional practices have emerged" (Schuetz, 2002, p. 44).

Schuetz (2002) found that "statistically significant differences in results describing the distribution of instructional practices, faculty availability to students, and connection with colleagues and the institution were identified by employment status" (p. 44). While conceding that "part time faculty are generally well-qualified to perform their duties, and...many colleges are working to orient and integrate them more fully into the college infrastructure, it can be argued that part-timers are more weakly linked to their students, colleagues, and responding institutions than full-timers" (Schuetz, p. 44). Schuetz's analysis "confirmed that part-timers tend to have less total teaching experience, teach fewer hours per week at the responding institution, use less innovative or collaborative teaching methods, and interact less with their students, peers, and institutions" (p. 44). Part-timers also "tend to be less familiar with availability of campus services (such as tutoring and counseling) and express less knowledge of students' need for or use of support services" (Schuetz, p. 44). According to Schuetz, "Part-timers also are less likely to sustain the kind of extracurricular student-faculty interaction that has been linked to enhanced student learning" (p. 44). Ultimately, Schuetz concludes "that students are unlikely to receive the same quality of instruction from these more tenuously linked faculty" (p. 44).

In addressing the problem of declining faculty availability to students, Benjamin (1998) is quick to point the finger at the growing numbers of part-time faculty. Refusing to accept the explanation that full-time, tenured faculty are the source of the problem (growing less productive as they attain tenure status), Benjamin "challenges the argument that tenure fosters indifference to student learning" (p. 716). Using Department of

Education data to support his argument, Benjamin states that "inadequate faculty involvement with students primarily reflects the declining numbers of tenure track faculty relative to the increasing numbers of students" (p. 716). In at least three distinct areas, the data clearly show that "full-time tenure-track faculty are more productive—that is, spend more time with students and contribute more to student success than their less expensive part-time or non-tenure track replacements" (Benjamin, p. 716).

First, Benjamin (1998) shows how the ratio of students to faculty members has almost doubled over the last forty years. The number of students per faculty member has increased overall from 11:1 to 17:1 (Benjamin). The data also show that the ratio of students to full-time faculty is 26:1, and 52:1 at community colleges (Benjamin). Second, Benjamin points out that tenure track faculty have become less accessible to students simply because they compose a small minority of faculty at community colleges and large public universities, which combined account for 80% of the national college student population. Benjamin argues that part-time faculty contribute less to their students per hour taught, mainly because part-time faculty are paid by course hour. Full-time faculty devote more than 2 hours of out-of-class instruction for every hour in class, while part-time faculty only devote one hour out of class for every hour inside the classroom (Benjamin). Finally, Benjamin reports data showing how the public financial support of higher education has declined over the last 30 years. This has forced institutions to cut full-time faculty lines and save money by relying much more heavily on part-time faculty (Benjamin). The over-reliance on part-time faculty has, in turn, led to a decline in faculty availability to students (Benjamin).

While acknowledging the cost savings that adjuncts bring to the institution, Louziotis (2000) has pointed out another cost that many adjuncts perhaps fail to take into account: opportunity costs. Time is the main cost for adjuncts, "or the opportunity cost associated with the time needed to prepare for and teach a class" (Louziotis, p. 50). For those practitioners who teach, time is a constrained resource because the time spent teaching is essentially time taken away from their regular job (Louziotis). Louziotis also points out that "for those who teach to try to advance their professional careers, there is the additional risk that the payoff never comes, or at least is not as great as was hoped" (p. 50).

Aside from the opportunity costs experienced by adjunct faculty themselves, Louziotis (2000) also identifies a number of additional potential "costs" to the institutions that rely heavily on adjuncts. The first major concern is that adjuncts may indeed lower the quality of instruction (Louziotis). While conceding that the findings from various research studies have been mixed, Louziotis states that "at a minimum there is a good probability that the variance in quality is much higher with part-timers" (p. 50). Ultimately, it is how the institution manages the use of adjuncts that will determine the quality of instruction and help minimize the variation therein (Louziotis).

A second concern has to do with the contributions of adjuncts to academic programs outside of teaching (Louziotis, 2000). According to Louziotis, "Full-timers often feel they must carry a disproportionate share of administrative duties, such as dealing with students outside of normal class parameters" (p. 50). This in turn reduces the overall benefits of the program since part-time faculty have less informal contact with their students (Louziotis). A third concern has to do with the lack of continuity in

instruction (Louziotis). Having a large number of adjuncts makes it more difficult to ensure that students in various course sections are receiving similar course content. This can be a major factor when students need to pass a comprehensive exam in order to graduate, or a standardized test (e.g., CPA exam, Praxis exam for teaching certification, etc.) in order to get licensed for a particular occupation. Finally, Louziotis cites that adjuncts are generally not as involved in the program as full-timers, the result being that "new and less prepared students are put at a greater disadvantage" (p. 50).

In 2002, Gappa and Leslie conducted a study using data from the Center for the Study of Community Colleges (CSCC) and the National Study of Postsecondary Faculty (NSOPF). The study yielded a picture of part-time faculty which, on the whole, was fairly consistent with those of previous studies (Gappa & Leslie). Gappa and Leslie note that part-time faculty look a lot more like full-time faculty than is sometimes assumed, for "their interests, attitudes, and motives are relatively similar" (p. 65). Part-time faculty tend to be experienced, stable individuals who enjoy teaching, and "contrary to popular images, only a small fraction of part-timers are eagerly seeking full-time positions and subsisting on starvation wages while holding multiple part-time jobs—the prevalent stereotype so often profiled in the popular media" (Gappa & Leslie, p. 65). Still, the study also showed a number of differences which may reinforce the idea that overall quality in an academic program is diminished by the overuse of adjuncts.

First, the research by Gappa and Leslie (2002) shows that part-time faculty "appear to be more comfortable with conventional teaching practices and less likely to have won outstanding teaching awards" (p. 65). This seems to indicate that part-timers are "less-seasoned than full-time faculty, and perhaps less secure about breaking the

mold" (Gappa & Leslie, p. 66). Second, although part-timers generally feel that they receive an appropriate level of support from the institutions where they teach, "the relative strength of these feelings leaves room for improvement" (Gappa & Leslie, p. 66). While part-timers are satisfied overall and are able to perform the work they are asked to do, there still exists a "less than ringing affirmation of their preparation and the conditions under which they work" (Gappa & Leslie, p. 66). In terms of credentials, part-timers are less likely than their full-time counterparts to have earned graduate degrees, and the percentage of full-timers with earned doctorates is nearly twice that of adjunct faculty (Gappa & Leslie). Finally, part-timers are less experienced teachers than full-time faculty and clearly are more tied to the use of conventional instructional methods (Gappa & Leslie). To remedy some of this, Gappa & Leslie suggest "that their professional development needs to cover both substantive disciplinary preparation and preparation to teach" (p. 66).

In the fall of 2003, the journal *New Directions for Higher Education* published an entire edition on adjunct faculty, titled "Exploring the Role of Contingent Instructional Staff in Undergraduate Learning." It was edited by Benjamin, and contained eight separate articles about the role of part-time faculty in educating undergraduate students. The majority of these articles presented evidence that the overall effect of adjuncts on the quality of instruction is more negative than positive. First, Schuster (2003) points out that although "contingent faculty members spend a greater proportion of their overall time teaching...the preliminary evidence suggests that these appointees are less accessible to students, bring less scholarly authority to their jobs, and are less integrated into the campus culture" (p. 15). The argument is made that "these factors presumably detract

from the students' learning experiences" (Schuster, p. 21). Schuster also expresses concern that "it is not yet possible to assess with confidence the effects of contingency appointments on faculty careers" (p. 21). Schuster wonders whether there will be a "revolving door" phenomenon, "perhaps especially when labor market conditions make 'churning' an alternative" (p. 21). Finally, Schuster considers what impact the growing number of part-time faculty will have "on the ability of the academic profession to attract individuals of suitably high quality to academic careers" (p. 21). He believes that "over time, the awareness by career choosers of the changing odds may dissuade many talented men and women—undergraduates and graduates with considerable career mobility—from pursuing academic careers" (Schuster, p. 21). In the end, 'The consequences will not be measurable, but the losers will be future generations of students, and indeed, society itself" (Schuster, p. 21).

In commenting on a report by the Coalition on the Academic Workforce (CAW), Townsend (2003) notes that "although administrators describe the use of adjunct faculty as allowing their institutions to teach more for less, it has instead become a way to earn more in tuition revenue while providing less in education" (p. 23). The report was based on a survey of the numbers, salaries, and benefits of both full- and part-time faculty in 10 different academic disciplines (anthropology, cinema studies, composition, folklore, history, linguistics, English, foreign languages, philosophy, and philology). Townsend states that "even for those of us who had been tracking the issue for some years, the results were shocking" (p. 24). Overall, full-time faculty barely constituted a majority of all faculty, comprising just over 51% of all faculty appointments (Townsend). What Townsend also found to be particularly disturbing was that full-time faculty taught far

more upper-level courses than introductory level courses. The disparity "suggests that the increased use of part-time and adjunct faculty has made it acceptable for established tenure-track faculty to eschew their responsibilities to students who do not major in their field" (Townsend, p. 26).

Townsend (2003) goes on to highlight survey results indicating major differences in terms and conditions of employment between full- and part-time faculty. The CAW data definitely showed "sharp disparities in the treatment of those (full- and part-time) faculty on salaries, benefits, and basic support for teaching and research" (Townsend, pp. 26-27). While full-time faculty receive salaries sufficient to devote most of their time to instructional responsibilities, "part-time faculty, particularly those paid on a per-course basis, receive so little compensation that they simply must take multiple jobs to maintain even a modest standard of living" (Townsend, p. 27). Regarding benefits, almost all full-time faculty have access to at least some form of health insurance that is partially paid by the institution, and the CAW data showed that between 68 and 84% had access to a retirement plan as well as life insurance (Townsend). But in 9 out of the 10 academic disciplines where the survey was conducted, well over 60% of all departments offered absolutely no benefits to part-time faculty who were paid by the course (Townsend). Finally, just as with salary and benefits, full-time faculty received far more support for professional scholarship than part-timers (Townsend). Full-time faculty receive far more in the way of support for travel to professional meetings, access to research grants, and workshops for faculty (Townsend). The same can be said when it comes to basic support for teaching work. Unlike full-time faculty, part-time faculty generally do not have a private office or a personal computer, and if they do have a computer, it is usually a

"discard from a recent upgrade for a full-time faculty member" (Townsend, p. 30). Part-time faculty are further marginalized by being excluded from department meetings and often being denied access to any type of grievance procedure (Townsend).

Townsend (2003) concludes his article by stating that "it is not difficult to see how this changing social and economic system may have a direct effect on students" (p. 31). Because of the "low wages and marginal benefits of part-time faculty, they are clearly subject to other pressures and other time commitments" (Townsend, p. 31). The other jobs they hold, the other classes they teach at other institutions, the time spent traveling from job to job—all of this cuts into "the time available to prepare for classes, grade papers, and provide personalized attention to individual students" (Townsend, p. 31). Given these pressures, "it seems clear that the exploitation of part-time faculty means exploitation of students and parents as well" (Townsend, p. 31).

In the article "Part-Time Faculty: Why Should We Care?," Nutting (2003) points out that "as institutions depend less on tenured full-time faculty and more on part-timers, other problems surface" (p. 38). Part-timers may help with the overall instructional load, but "only full-timers are available and expected to do program reviews, participate in accreditation exercises, serve on hiring committees, and provide oversight to curricular reforms" (Nutting, p. 38). Community colleges that continue to replace their full-time faculty with part-timers are often left with just one or two full-time instructors in any discipline (Nutting). Since this leaves "fewer experts to explain a field to those in other fields, those in one discipline can develop false impressions of what is done in another and use these misperceptions to make poor staffing and curricular decisions about that discipline" (Nutting, p. 38). Once "full-time faculty members in one discipline

require that part-timers in another discipline adhere to practices inconsistent with the discipline, courses suffer and students do not learn what they need to learn in these courses" (Nutting, p. 38). The problem is exacerbated "when accrediting agencies pay little attention to ensuring discipline standards and instead focus on general learning objectives, college mission statements, accounting practices, and institutional progress on matters identified during previous accreditation visits" (Nutting, p. 38). The problems with part-timers then grow unchecked and the overall quality of instruction suffers (Nutting).

In presenting the notion of a "strativersity," Thompson (2003) outlines a pattern of reasoning for how relying too much on part-time faculty leads to inadequate faculty accessibility for students, which in turn leads to inadequate student advising. Undergraduate students are more likely to be in introductory and core classes taught by part-time faculty, and are usually the students most in need of academic advisement (Thompson). This is the best time to reach these students, but part-time faculty are not as familiar with the range of academic programs, requirements, and possibilities that are available to all students (Thompson). In addition, part-timers are not paid to advise or become mentors to their students beyond the classroom in the way that full-time faculty are (Thompson). This leaves a huge void and makes it especially difficult for lower division undergraduates to navigate their way through their course of study.

While accessibility and advising are at risk outside the classroom, Thompson (2003) argues that part-timers cause students to be shortchanged in the classroom as well. In order for students not to be shortchanged, Thompson believes that they "need courses taught by faculty who know ahead of time that they are teaching, what they are teaching,

and when they are teaching" (p. 42). Adjuncts often do not receive "advance notice of reappointment," which means it is more likely that their courses will not be very well planned and well organized (Thompson). As previously noted, part-time faculty themselves are shortchanged when it comes to professional development and often excluded from collegial involvement (Thompson). The lack of decent pay and benefits, academic freedom, and due process protections also cause adjuncts to not be as daring or committed as their full-time counterparts (Thompson).

In his article "Reappraisal and Implications for Policy and Research," Benjamin (2003) argues that "we need to recognize and to convince policy makers that excessive dependence on contingent appointments is detrimental to undergraduate learning, and especially so for the 'at-risk' students, unable to attend the few selective institutions that still staff their core programs with full-time, fully supported faculty" (p. 79). According to Benjamin, adjuncts fall short in at least three areas: qualifications, contribution to student learning, and a third category which he calls "larger effects." This last category includes such issues as cost benefits, causes and consequences of multi-tiered instructional staffing, and faculty attitudes.

Benjamin (2003) begins discussing qualifications of part-time faculty by expressing disagreement with Gappa and Leslie's assessment that "part-time faculty are, for the most part, superbly qualified for their teaching assignments" (Gappa & Leslie, 1993, p. 6). According to Benjamin, there are three basic reasons why part-time faculty cannot be considered nearly as qualified as full-time tenure-track faculty. First, part-time faculty do not have to endure the same rigorous selection process that candidates go through in order to be hired full-time. The recruitment of adjuncts "is based on formally

or informally required 'minimum qualifications'" (Benjamin, p. 80). There are no national selection and peer interview procedures, and adjuncts usually do not even have to give teaching presentations to faculty and/or students in order to be hired (Benjamin). Benjamin concludes his argument here with an observation from Gappa and Leslie: "Recruitment for part-time faculty is usually informal and left up to department chairs to handle as they see fit" (Gappa & Leslie, 1993, p. 47). Second, Benjamin shows that full-time faculty are far more credentialed than part-timers, as the percentage of full-time faculty with doctoral degrees far exceeds the percentage of part-time faculty with doctoral degrees at all types of higher education institutions. Although there are those who will argue that the Ph.D. is a research degree and unnecessary for primary undergraduate instruction, "this argument neglects the fact that doctoral education includes not only a dissertation but at least 2 years of coursework and preparation for comprehensive exams in addition to the requirements for the master's degree" (Benjamin, pp. 81-82). The time "spent on this coursework and study not only increases knowledge of the field but also provides opportunities for observing advanced instruction and engaging in instruction as a graduate assistant" (Benjamin, p. 82). Finally, Benjamin cites a comprehensive study of the use of part-time faculty by community colleges which seems to indicate that "overall, part-time faculty are not carefully recruited or evaluated" (p. 84). While the routine use of student course evaluations does help department chairs in identifying problem instructors, there is a definitive lack of systematic or peer evaluation that normally takes place with full-time tenure-track faculty (Benjamin). To summarize, "because contingent faculty are less carefully selected, less likely to have advanced training in their fields, less experienced, and less carefully evaluated than

tenure-track faculty, it seems reasonable to conclude that they are, on average, less qualified than tenure-track faculty" (Benjamin, p. 85).

According to Benjamin (2003), adjuncts also contribute less to student learning than do full-time faculty. His reasoning here is based on "a substantial body of literature that suggests that student involvement in learning with faculty is a significant factor in student outcomes" (Benjamin, p. 85). Since part-time faculty are paid based on their time in class, they devote less time to involvement in student learning (Benjamin). In fact, according to Benjamin's calculations, "full-time faculty spend almost 50 percent to 100 percent more time on instruction per credit hour than do part-time faculty" (p. 86). Other constraints faced by part-timers include jobs outside the institution and lack of adequate office space and facilities to hold office hours. All of these combined constraints "detract from the quantity and quality of their involvement with student learning" (Benjamin, p. 91).

Other areas in which Benjamin (2003) believes adjuncts to fall short are cost benefits, the causes and consequences of multi-tiered instructional staffing, and faculty attitudes. First, while administrators often have tunnel vision for the institutional bottom line, the significant opportunity cost associated with part-time appointments goes undetected (Benjamin). Such positions could "be used to appoint and support more highly regarded faculty members—especially at institutions that routinely deny tenure to probationary faculty who are better qualified than the contingent appointees who gradually replace them" (Benjamin, p. 93). Second, Benjamin feels that the specialization achieved with multi-tiered instructional staffing, while lowering expenditures, "compromises faculty quality, diminishes faculty involvement in student learning, and

fosters a dual labor market" (pp. 94-95). It is the separating of teacher from scholar that "divides the faculty, impedes collegial cooperation, and institutionalizes a hierarchy that rewards research and penalizes teaching" (Benjamin, p. 95). Finally, Benjamin finds it worrisome that "part-time faculty express relatively high satisfaction with the time they have available for class preparation and to advise students, despite reporting less instructional time per credit hour and fewer (and often nonexistent) office hours" (p. 99). Also, "Contingent faculty are relatively well-satisfied with the time they have to keep current in their fields despite receiving lesser support, and having less involvement in scholarship" (Benjamin, p. 99). For Benjamin, such attitudes "suggest an erosion in professionalism or sense of professional responsibility" (p. 99). Though probably resulting from less than adequate terms and conditions of employment, Benjamin claims to speak for most tenure-track faculty when he states that this unprofessional attitude is not consistent with the academic values that should ultimately prevail.

Various other scholarly articles published in 2005 attest to the negative consequences of employing adjunct faculty. In West Virginia, a report was published stating that adjuncts comprise 40% of faculty teaching at West Virginia's public colleges and universities and 68% of the faculty at community and technical colleges (West Virginia Report). Robert Morgenstern (2005), the director of higher education for the American Federation of Teachers-West Virginia, does not question so much the quality of the adjuncts as he does their ability to fulfill the mission of the university. According to Morgenstern, adjuncts "must hold other jobs and are not as visible or available to students who have to find other advisers" (p. 14). This in turn "increases the workload for full-time faculty and reduces faculty-student contact" (West Virginia Report, p. 14).

Fischer (2005) states that "colleges' growing reliance on adjunct faculty members can have a detrimental effect on the educational experience of undergraduates" (p. A13). According to research presented in November of 2005 at a conference of senior administrators and policy makers in higher education, "The increased use of instructors who are not on the tenure track correlates with declining graduation rates, particularly at public comprehensive institutions" (Fischer, p. A13). It was also stated that the growing dependence on part-time faculty could obstruct the pipeline for graduate study, since "students who are not encouraged to do research by faculty members who are actively engaged in their own studies may be less likely to pursue doctorates" (Fischer, p. A13).

Finally, a statistical analysis by Kezim, Pariseau, and Quinn (2005) showed that grade inflation may indeed be tied to faculty status. These researchers "performed a statistical analysis to investigate whether grade inflation existed in the business school at a small private college in the northeast region of the United States" (Kezim et al., p. 358). The results of the study "showed that grade inflation existed and exhibited a linear trend over a 20-year period" (Kezim et al., p. 358). Once they confirmed that grade inflation existed at the business school, the researchers were then successful in determining that it was directly tied to faculty status. For the purposes of the study, faculty were divided into three groups: full-time tenured, full-time non-tenured, and adjunct. The results yielded statistically significant differences between adjunct faculty and full-time tenured faculty in both (a) mean grade point averages of the students they taught, and (b) average grades assigned to students (Kezim et al.). The same differences were observed between adjunct faculty and full-time non-tenured faculty. Both "overall and for the majority of years, the mean GPAs of students taught by adjunct faculty were higher than those taught by either

the tenured or non-tenured faculty" (Kezim et al., p. 360). The researchers "also found that average grades given by adjunct faculty were higher than those of either tenured or non-tenured faculty" (Kezim et al., p. 358). Thus, the conclusion is drawn that "the increased use of adjunct faculty exacerbates grade inflation in higher education" (Kezim et al., p. 358).

The Use of Adjunct Faculty in Graduate Education Programs

There are some scholarly articles that discuss the use of adjunct faculty specifically in graduate programs in education. According to Fisher and Edmonson (2003), part-time faculty play a very important role in the success of educational leadership programs. Fisher and Edmonson seem to believe that quality will not suffer with adjuncts, as long as certain policies and practices are adopted. First, it is imperative to match the courses taught by adjunct faculty with their respective areas of expertise (Fisher & Edmonson). Second, the dean or director should provide services for adjuncts throughout the semester, including formal orientation programs and professional development (Fisher & Edmonson). Third, adjuncts should be treated as colleagues, not as subordinates or second-class citizens (Fisher & Edmonson). Fourth, administrators and full-time faculty need to encourage and support the work of their adjunct faculty (Fisher & Edmonson). Finally, Fisher and Edmonson believe it is crucial to communicate the expectations of learner outcomes to adjunct faculty.

Schneider (2003) points out that many departments of educational administration might be operating what he refers to as "disjointed master's degree programs." While full-time faculty generally teach foundation courses and research theory, adjuncts are

hired to teach the practical courses in educational administration (Schneider). Adjuncts usually work in isolation from the full-time faculty, and even in isolation from each other (Schneider). These conclusions were based on an informal study conducted by the American Association of School Administrators, in which 295 school superintendents responded to surveys that had been sent out to them. It was also found that superintendents who teach as adjunct faculty often teach core courses, such as school finance, school law, educational leadership, and school administration (Schneider). They usually develop their own syllabi, without any guidance from their university colleagues (Schneider). They are more likely to interact with other superintendents than with full-time faculty, and because they are paid well as superintendents, they are not bothered by the low salaries they receive as adjuncts (Schneider). It is not the money that attracts them to teaching, but rather personal growth, the chance to pass on their own professional knowledge, and the hope of improving upon the current training of new educational leaders (Schneider). Although there seems to be little communication overall between full- and part-time faculty, adjunct faculty members are comfortable with the situation because of a well-developed sense of who they are (Schneider).

A study by West and Wollert (2000) revealed some interesting findings on adjunct faculty in graduate education programs. This study focused on student course evaluations of classes within the College of Education at East Tennessee State University. The evaluations were examined to discern differences in instructional quality between full- and part-time faculty, both in undergraduate and graduate level courses. The data used for this study consisted of evaluations from 1,736 undergraduate students and 1,025 graduate students who attended classes between 1992 and 1997. Overall, the

ratings for adjunct faculty were actually similar to those of full professors (West & Wollert). But as indicated in chapter 1 of this dissertation, the findings did reveal that there was one department within the College of Education where full-time faculty were consistently rated significantly higher than adjuncts. That department was Educational Leadership/Policy Analysis (ELPA), where just about all of the courses offered were on the graduate level. It is interesting that adjuncts were rated favorably compared with full-timers on the undergraduate level, but not nearly as favorably on the graduate level. This finding is especially important in light of the fact that adjuncts play a major role in graduate education programs (e.g., educational leadership) and raises the question of whether graduate education programs should continue to rely as heavily as they do on adjunct faculty.

The Validity of Student Course Evaluations

Before even considering carrying out a study such as the one the researcher has conducted, one must ask the question, "Are student course evaluations a valid measurement of instructional quality?" The literature is once again divided on this question, with some scholars saying "yes" and others saying "no."

Hellman (1998) conducted an analysis of the validity of the faculty evaluation instrument used in courses at Tulsa Community College. The analysis even included a comparison of the evaluations of both adjunct instructors and full-time faculty members. Ultimately, Hellman's analysis resulted in three important findings. First, there existed a single dimension construct among the evaluations for both adjuncts and full-time faculty. Second, item-level comparisons failed to yield any statistically significant differences

between evaluations for adjuncts and full-time faculty. Finally, the overall results of Hellman's study supported the statistical validity of the evaluation instrument, meaning that it was an effective method for measuring instructional quality of both adjunct and full-time faculty.

Ory (2001) also sets forth arguments for the validity of student course evaluations. Ory uses research to show that teachers who are better entertainers do not necessarily receive higher ratings on course evaluations. Rather, those teachers who exhibit "hardness of head and softness of heart" are the ones who consistently receive high ratings. This basically means that instructors need to know what they are talking about in the classroom and must show their students that they really do care about them. Ory also dispels myths that other factors such as class size, gender, and student characteristics have a significant impact on the results of student evaluations of teachers. The facts, according to Ory, are that faculty cannot manipulate their student ratings as well as they think they can and that student ratings are reliable, valid measures of teaching effectiveness. In directly addressing the validity of student ratings, Ory quotes Greenwald: "The validity of student rating measures of instructional quality was severely questioned in the 1970s. By the early 1980s, however, most expert opinion viewed student ratings as valid and as worthy of widespread use" (Ory, p.8).

Hobson and Talbot (2001), while acknowledging that questions about the accuracy of student evaluations of teaching effectiveness (SETEs) are not at all uncommon, point out "that there seems to be a discrepancy between anecdotal beliefs and empirical data" (p. 28). First, "The research on SETEs has provided strong support for their reliability, and there has been little dispute about it" (Hobson & Talbot, p. 28). Data

indicate that there is not only a generally acceptable degree of consistency regarding SETEs, but that the ratings are stable over time and highly generalizable across both courses and students (Hobson & Talbot). Second, many researchers, including Cashin, Centra, Feldman, and Marsh have conducted studies which indicate the validity of SETEs (Hobson & Talbot). Those who have attempted to find evidence of bias in SETEs have been unable to do so on a consistent basis, and thus universities have tended to adopt student evaluations and to assume that they have an appropriate level of validity (Hobson & Talbot). In conclusion, Hobson and Talbot argue that student evaluations report honest student perceptions. Although perceptions may not always be accurate representations of objective facts, "They nevertheless constitute, for a variety of important factors, the entirety of the student end of the teaching process" (Hobson & Talbot, p.30). Therefore, "Their importance in the teaching-learning interchange should be obvious" (Hobson & Talbot, p. 30).

Centra (2003) analyzed the results of student evaluations from over 50,000 college courses whose teachers used the Student Instructional Report II. The analysis sought to determine whether teachers will receive more favorable student evaluations if they give higher grades and less course work. Faculty certainly seem to believe that this is true, as Centra cited a survey from a major research university where the majority believe that course difficulty (72%), grading leniency (68%), and reported course workload (60%) would bias student evaluations. Yet, the results of Centra's analysis show that this is not the case. Centra found that "the average expected grade instructors had given in their courses had little effect on the student evaluations of those courses" (p. 514). The findings for difficulty/workload, while more complex, also failed to produce a

statistically significant correlation. Thus Centra concluded that teachers were not at all likely to receive more favorable evaluations from their students by giving higher grades and assigning less course work.

Rice, Stewart, and Hujber (2000) point out that "student evaluations of college-level courses are valuable tools for assessing and improving classroom teaching" (p. 253.) Numerical student evaluations of instruction are used in almost 80% of postsecondary institutions (Rice et al., 2000). Research has shown that relationships exist between student evaluations and learning, achievement, and instructor attributes (Rice et al., 2000). According to Rice et al., "Student evaluations of instruction can help a teacher target areas for self-improvement; they can be used for administrative decisions (but they must be used judiciously); and they can be used as information for students in their selection of courses" (p. 253). If done effectively, "the process of creating, administering, evaluating, and using instruments for evaluation of teaching opens up within an institution a dialogue that can clarify the mission and goals of the institution (Rice et al., p. 253). Although acknowledging that student evaluations of instruction do not fulfill all of an institution's needs for consistent evaluation, Rice et al. are quick to point out that "current students are and should remain the most important stakeholders to institutions of higher education (p. 254).

But not all of the literature views student evaluations of teaching in a favorable light. Yunker and Yunker (2003) examined the relationship between student achievement and student evaluations in business core classes at Western Illinois University. For the purposes of their study, student achievement was measured by the grade which the student earned in Intermediate Accounting I, while student evaluations were measured by

the mean class evaluation of the student's instructor in Introductory Accounting II. Yunker and Yunker even controlled for student ability using three variables: student grade in Introductory Accounting II, student cumulative grade point average, and student ACT score. After conducting their analysis, Yunker and Yunker found a statistically significant negative relationship between student achievement and student evaluations. Essentially, "Students in Intermediate Accounting I who have been in Introductory Accounting II courses in which the teacher has been rated more highly tend to do worse than students who have been in Introductory Accounting II courses in which the teacher has been rated less highly" (Yunker & Yunker, p. 316). Therefore, Yunker and Yunker conclude that "this research points toward potential invalidity of student evaluations of teaching in accounting education and suggests that they be applied cautiously in faculty performance evaluation" (p. 316).

Eiszler (2002) carried out a very comprehensive study to investigate the question of whether the use of student evaluations of instruction has been a contributing factor to a trend of grade inflation. Although focused on a mid-sized, public university in the upper Midwest, the study aggregated data for 983,491 student evaluations of more than 37,000 course sections. Eiszler "examined the trends in the percentage of students expecting the grades of A or A- and students' composite ratings of teacher effectiveness in courses offered between 1980 and 1999" (p. 483). Ultimately, the results of the analysis revealed statistically significant correlations over 40 semesters between the percentage of A/A- grades and students' ratings of teacher effectiveness (Eiszler). More specifically, "The percentage of students expecting A/A- grades increased steadily by a total of more than 10 percentage points during the 1990s after remaining stable during the 1980s" (Eiszler,

p. 483). As this occurred, "student ratings of teaching gradually, but steadily, increased by more than one-tenth of a point after remaining relatively stable during the first half of the 1980s" (Eiszler, p. 483). The correlation was statistically significant even after Eiszler controlled for variables related to alternative explanations, such as prior academic achievement, course attractiveness, and instructor attractiveness. In conclusion, Eiszler states that "although generally valid as measures of teaching effectiveness, college students' ratings of instruction may be used in ways that raise questions of consequential validity, specifically by encouraging grade inflation" (p. 483).

Feeley (2002) conducted an experiment to see if "halo effects" existed in student evaluations of instruction for 128 students in three separate undergraduate communication courses at a small liberal arts college. Feeley defines the halo effect as a "construct reserved to explain individual rater's failure to discriminate among conceptually distinct aspects of a stimulus person's behavior" (p. 225). The evaluation forms used in Feeley's study contained items measuring nonverbal immediacy, teaching effectiveness, and attitudes toward course content. Feeley also asked students to rate instructors on two items that are considered irrelevant to teaching effectiveness (vocal clarity and physical attractiveness). Statistically significant inter-correlations were discovered among all five measures in the evaluation, thus indicating the presence of a halo effect (Feeley). Feeley also found that "relationships between the two irrelevant measures and nonverbal immediacy, teaching effectiveness, and course affect were somewhat stronger when the two irrelevant items were placed at the end of the survey" (p. 225). Though stopping short of calling student evaluations of instruction inherently flawed and invalid, Feeley argues that they are haloed for sure.

Martinson (2000) argues that student evaluations of teachers are given disproportionate weight in evaluating teachers for purposes of tenure, promotion, and salary increases. While acknowledging that there is "a certain amount of short-term validity in the procedure," Martinson believes that "research into the impact of student evaluations on teaching too often focuses on short term factors" (p. 79). What is now needed is for researchers "to consider the cultural and long-term impact of this now almost universal practice" (Martinson, p. 82). For example, Martinson would like to see more focus on student evaluations of teaching as they relate to the mission of the institution, the question of what students are entitled to in the context of a college education, and the philosophical and psychological messages which students and faculty receive from this practice. According to Martinson, it is difficult to maintain academic integrity in a culture where students believe that they are entitled to certain grades and professors yield to their demands for the purpose of garnering a better evaluation. If teachers are to effectively serve their students, then it is imperative to address "the potentially dysfunctional impact that has resulted from an over reliance on student evaluations as a measure of good teaching" (Martinson, p. 82).

Best and Addison (2000) conducted a preliminary study which "examined the association between perceived warmth of instructor and students' course evaluations on both affective and summative items" (p. 60). The participants in the study were students taking a cognitive psychology course in three consecutive academic terms: summer, fall, and spring. The number of students in each of these classes ranged from 26 to 48, with approximately 70% of them completing the evaluation form (Best & Addison). The instrument contained 19 positively worded statements, with each one followed by a

Likert-type scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*). Best and Addison identified 4 of the 19 items they perceived as being most related to the affective component of teaching and calculated mean scores for each of them. They used a modified A-B-A design to investigate whether there exists a "relation between certain behaviors or statements made in the classroom and the evaluation of the professor's warmth" (p. 60). The findings showed that "student evaluations on affective items were more favorable in those classes in which the professor exhibited a full array of warmth-inducing behaviors" (Best & Addison, p. 60). Thus there exists a relation between warmth-inducing behavior and favorable results on student evaluations. Best and Addison conclude that "unless and until the professoriate succeeds in parsing such relations at both the theoretical and empirical levels, proponents of the value of student evaluations will be forever vulnerable to attacks" (p. 62).

Finally, Kolitch and Dean (1999) refer to student evaluations of instruction (SEI) as the "de facto 'gold standard' of retention, tenure, and promotion decisions" (p. 27). But should they be considered as such? Kolitch and Dean conducted an in-depth analysis of SEIs and found that they were based on six underlying false assumptions. First, SEIs are based on the premise that "the instructor is at the center of the classroom and is seen as the principal actor and source of learning, whereas the student is invisible or on the periphery of the educational process" (Kolitch & Dean, p. 38). With a growing shift toward student-centered learning and activities in higher education, this calls the results of SEIs into question. Second, "Education is not viewed as a complex interaction between students, course, and the instructor" (Kolitch & Dean, p. 38). Instead, it is viewed as something far more simplistic than it really is. Third, it is assumed that "the

instructor has sole authority with respect to curriculum and evaluation" (Kolitch & Dean, p. 38). In actuality, this is rarely, if ever, the case. Fourth, SEIs are predicated on the belief that "it is possible to identify measurable student behaviors (outcomes) in all subject areas" (Kolitch & Dean, p. 38). Thus SEIs do not account for the differences across various subject areas (e.g., mathematics vs. art). Fifth, SEIs assume that there exists a "tight, well-articulated alignment between instruction and evaluation" (Kolitch & Dean, p. 38). But the fact is that some elements of instruction cannot be quantified and thus cannot be evaluated. Finally, "A caring rapport between instructor and student is encouraged but the relationship portrayed is minimal and procedural" (Kolitch & Dean, p. 38). In conclusion, Kolitch and Dean believe the survey items on SEIs to "present a particular model of teaching that is tied to a purpose and a politics" (p. 39). Thus they question their neutrality, believing it is impossible for any document "to transcend diverse disciplines, epistemologies, teaching methods, and institutional use" (Kolitch & Dean, p. 39).

Summary and Conclusions

The book, *The Invisible Faculty*, by Gappa and Leslie (1993) certainly heightened the awareness of numerous issues related to the growing reliance on part-time faculty by higher education institutions in the United States. Gappa and Leslie covered each and every topic related to the environment for part-time faculty as well as how to enhance education through the use of part-time faculty. Ultimately, they conclude that part-time faculty are a valuable resource, but they need to be treated fairly and used properly by the

institutions that they serve. There is some other scholarly literature that emphasizes the positive attributes of employing part-time faculty, but unfortunately it seems as though the biggest positive may be the cost savings enjoyed by the institutions that rely heavily on adjuncts. This still leaves the question of whether the financial boon results in another cost to the institution: the cost of academic quality.

Without question, there is much more literature emphasizing the negative aspects of relying on adjuncts than there is literature emphasizing the positive. Formal studies have met with conflicting results, but there is definitely enough to seriously question whether adjuncts decrease the level of academic quality in a program. Despite the many positive claims made about part-timers in *The Invisible Faculty*, Leslie (1993) admitted that the question of whether there truly was a difference in instructional quality between full- and part-timers was one which he and Gappa (1993) were unable to answer. I personally feel that Benjamin (2003) said it best when analyzing the evidence comparing full- and part-time faculty. Though there may not be enough out there to prove that adjuncts are doing substantial damage to academic quality, there is enough evidence to "shift the burden of proof to those who have heretofore defended the instructional effectiveness of contingent appointees based on anecdotal observations about their teaching commitment or derisive comments about the teaching commitment of tenure-track faculty" (Benjamin, p. 108).

Though there is a body of literature criticizing the use of student evaluations of teaching and perhaps even questioning their long-term validity, it seems as though the evidence justifying their use is quite solid. The belief that student evaluations of teaching are both reliable and valid is one that is generally accepted in the field of higher

education. Even if the point about student evaluations of teaching lacking long-term validity is true, then Rice et al. (2000) have already come up with the solution. They recommend the use of an "alumni teaching effectiveness survey" to garner feedback from those who have graduated and are presumably employed full-time in their field. The reliance on multiple perspectives offered by a variety of institutional stakeholders when evaluating instruction is clearly the best approach.

Finally, there is some extant literature discussing the importance of adjunct faculty in graduate education programs. It seems to be a common practice to hire superintendents, principals, or school business administrators to teach core courses in school law, school finance, educational leadership, and school administration. This may be critical because a study by West and Wollert (2000) found that full-time faculty were rated significantly better than adjuncts in the Educational Leadership/Policy Analysis (ELPA) department at East Tennessee State University over a 5-year period. If this is the case, what does that say about the national trend to rely more heavily on adjunct faculty in graduate education programs? Is this the direction we should be heading? It is clear that more research is needed on this topic in order to draw a more definitive conclusion.

Chapter 3

Methodology

Introduction

The purpose of this study is to determine if there are statistically significant differences in instructional quality between full- and part-time faculty as perceived by students in the Graduate Education Program at a private college in New Jersey. The researcher will analyze data collected through faculty course evaluations over a 2-year period (2004-2006). The aggregate data will be used to determine if there is an interaction between the influence of faculty type (i.e., full-time, long-term adjunct, or short-term adjunct) on student ratings of instructional quality and the influence of the academic year in which the ratings were recorded. Also, the data from one academic term (summer 2006) will be used to determine if there is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables. This chapter will consist of the following sections: research design, instrumentation, population, data collection procedures, data analysis, and research hypotheses.

Research Design

As stated above, the researcher in this study will analyze data collected through faculty course evaluations over a 2-year period (2004-2006). The data collected on perceived instructional quality of part-time faculty will be separated into two distinct groups: long-term adjuncts and temporary adjuncts. For the purposes of this study, a

long-term adjunct is defined as any part-time faculty member who has been teaching consecutively for at least the last 5 years in the Graduate Education Program. Any part-time faculty member who has not been teaching consecutively for the last 5 years will be categorized as a short-term or "temporary" adjunct. This distinction is important because there are a number of part-time faculty in the Graduate Education Program at this private college who have been teaching there for many years. Thus I believe it is necessary to separate them from the temporary adjuncts, who are clearly not on the same level as long-term adjuncts when it comes to experience in the classroom. The 5-year benchmark was chosen because it splits the part-time faculty neatly into two groups of comparable size.

Aggregate data on instructional quality for full-time faculty will be compared with aggregate data on instructional quality for part-time faculty to see if any statistically significant differences exist. Since the part-time faculty have been split into two groups, data for each group will be compared with data for full-time faculty. The following statistical tests will be administered: a one-way analysis of variance (ANOVA) for the data from academic year 2004-05, a one-way ANOVA for the data from academic year 2005-06, a one-way ANOVA for the aggregate data from both academic years, and a two-way ANOVA for the aggregate data from both academic years.

Faculty course evaluations at this private college are designed to measure the following components of instructional quality: (a) clarity of learning objectives; (b) relating activities to course objectives; (c) clarity of grading criteria; (d) preparation level of the instructor; (e) instructor's tolerance for diverse points of view; (f) whether the course is challenging enough; (g) availability of the instructor outside of class; (h)

whether the instructor generally cares about students; (i) appropriate choice of readings; (j) grading and returning work in a timely, constructive manner; (k) whether grades reflect a fair evaluation by the instructor; (l) effective use of e-mail; (m) effective use of films/videos/DVDs; (n) effective use of slides, PowerPoint, transparencies and/or overheads; and (o) effective use of Blackboard. Students rate their instructors on each of these criteria using a 5-point Likert scale. Mean scores for aggregate data on each of these 15 variables will be calculated for full-time faculty, long-term adjuncts, and short-term adjuncts. The means for full-time faculty will then be compared with the means for both long-term adjuncts and short-term adjuncts in order to determine if there are statistically significant differences. Again this will be done for each academic year as well as aggregately (both academic years combined) using a one-way ANOVA. A two-way ANOVA will also be performed on the aggregate data to determine if there is an interaction between the influence of faculty type (i.e., full-time, long-term adjunct, or short-term adjunct) on student ratings of instructional quality and the academic year in which the ratings were recorded.

Finally, the researcher will attempt to discover whether there is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables. Currently, graduate faculty course evaluations at this private college do not attempt to glean data on student characteristics. But for the purposes of this study, the researcher will construct an addendum for the summer 2006 faculty course evaluations that will provide data on the following student characteristics: (a) number of credits previously completed; (b) whether the course the student is taking counts toward the degree foundation, degree concentration, electives, or

non-degree certification program; (c) the number of hours the student spends on outside work for the class; (d) the grade which the student expects to receive in the class; and (e) the student's cumulative GPA. Thus it will be feasible to determine if there is an interaction between the influence of faculty type (i.e., full-time, long-term adjunct, or short-term adjunct) on student ratings of instructional quality and the influence of these five student demographic variables.

Instrumentation

The "Student Opinion on Teaching Questionnaire" will be the primary instrument on which data collection in this study is based. This questionnaire is administered in the final class meeting of every course offered at the private college in New Jersey where the study is being carried out. As stated previously, students rate their instructor on a 5-point Likert scale for each of the 15 variables in this study. Students are presented with a statement, and are then asked to respond by assigning it a value of 1 (*strongly agree*), 2 (*agree*), 3 (*mixed*), 4 (*disagree*), 5 (*strongly disagree*), or 6 (*not applicable*). For example, one statement reads, "The learning objectives of this course have been made clear." Students are then given the chance to express whether they strongly agree, agree, disagree, strongly disagree, or have mixed feelings about that statement as it relates to their instructor. They also have the opportunity to express that this particular statement is not applicable to the instructor being evaluated.

As stated earlier, these questionnaires do not seek demographic data from graduate students. But for the 2006 summer courses, the researcher has constructed an

addendum that contains five demographic questions for graduate students. The questions are as follows:

1. How many credits have you previously completed in the graduate education program? A) 0 B) 3 C) 6-12 D) more than 12

2. This course counts toward my: A) degree foundation B) degree concentration C) electives D) non-degree certification

3. For this course, I feel I need to spend this many hours of work per week outside of class on average: A) 1-3 B) 4-6 C) 7-9 D) 10-12 E) 13-15 F) more than 15

4. For this class, I expect to receive a grade of: A) A B) A- C) B+ D) B E) B- F) C+ G) C H) D+ I) D J) F

5. What is your cumulative GPA to date in the graduate education program? A) 3.5-4.0 B) 3.0-3.49 C) 2.5-2.99 D) 2.0-2.49 E) less than 2.0 F) not applicable (taking first course now)

These questions enabled the researcher to determine if the influence of faculty type (i.e., full-time, long-term adjunct, or short-term adjunct) on student ratings of instructional quality interacts with the influence of these student demographic variables.

Population

The target population for this study consisted of students who completed faculty course evaluations in the Graduate Education Program at a certain private college in New Jersey during the past 2 years. Data were collected from faculty course evaluations for

the 2004 fall term, 2005 spring, summer, and fall terms, and the 2006 spring and summer terms.

Procedures for Data Collection

The procedure for collecting the data in this study consisted of a double-blind experiment design. The Chairman of the Education Department at this private college, who ordinarily has access to the results of faculty course evaluations, sorted the evaluations by term and then separated the evaluations for each term into three piles: one pile of full-time faculty evaluations, one pile of long-term adjunct faculty evaluations, and one pile of short-term adjunct evaluations. Thus there were three piles of data for each academic term. The results of the evaluations were then re-typed and presented to the researcher without the faculty names and course numbers. Thus the researcher received data that were anonymous and did not compromise the confidentiality of the evaluation results. The researcher only knew two things about each set of data: what term it was collected in and whether the data were for a full-time faculty member, long-term adjunct faculty member, or short-term adjunct faculty member. Faculty evaluations for summer 2006 were also coded along with the attached surveys in order for the researcher to match them up after receiving them.

Data Analysis

Once all of the data were collected, they were then analyzed in a couple of different ways. First, the data from the faculty course evaluations provided Likert scale rankings for each of 15 different variables being measured in this study. The numerical

values assigned to each ranking were +2 (*strongly agree*), +1 (*agree*), 0 (*mixed*), -1 (*disagree*), and -2 (*strongly disagree*). Three sets of data for each academic year were compiled: one for full-time faculty, one for long-term adjuncts, and one for short-term adjuncts. Once the sets of data were complete, a mean score was calculated for each variable, resulting in 15 mean scores for full-time faculty, 15 mean scores for long-term adjuncts, and 15 mean scores for short-term adjuncts. The mean scores for full-time faculty were then compared with the mean scores for both long-term adjuncts and short-term adjuncts using a one-way analysis of variance (ANOVA). The results of the ANOVA indicated whether there are statistically significant differences in instructional quality between full- and part-time faculty in each academic year as well as aggregately. As an added bonus of sorts, the results of the ANOVA demonstrated whether there are statistically significant differences in instructional quality between long-term adjuncts and short-term adjuncts as well. After the one-way ANOVA tests were conducted, the researcher also used a two-way ANOVA to determine if there is any interaction between faculty type and academic year on any of the 15 components of instructional quality.

Finally, the researcher determined if there is an interaction between the influence of faculty type (i.e., full-time, long-term adjunct, or short-term adjunct) on student ratings of instructional quality and the influence of various student demographic variables. These data were only available from the summer 2006 faculty course evaluations, so this is the only set of data that may be used for this portion of the study. Once again, the two-way ANOVA was used to determine if there is any interaction between the influence of

faculty type and the influence of any of the student demographic variables on any of the 15 components of instructional quality examined in this study.

Research Hypotheses

The null hypotheses for this research study are:

Research Null Hypothesis RQ1: There are no significant differences in instructional quality between full-time and adjunct faculty teaching in the Graduate Education Program at this private college in New Jersey as measured by students between the fall of 2004 and the summer of 2006.

Research Null Hypothesis RQs 1a-1o: There are no significant differences between full-time and adjunct faculty in the ratings for any of these 15 components of instructional quality.

Research Null Hypothesis RQ2: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the academic year in which the ratings were recorded.

Research Null Hypothesis RQ3: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables.

Research Null Hypothesis RQ 3a: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the student's matriculation status.

Research Null Hypothesis RQ 3b: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of

whether the students doing the rating are taking a course which counts toward their degree foundation, degree concentration, or some other area (e.g., electives or non-degree certification).

Research Null Hypothesis RQ 3c: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of how many hours per week the students spend on outside work for the course (1-3, 4-6, 7 or more).

Research Null Hypothesis RQ 3d: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the grade which the student expects to receive in the class (either an A or a grade less than A)?

Research Null Hypothesis RQ 3e: There is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the students' cumulative GPA in the program (3.5-4.0, 2.5-3.49, or not applicable due to being a new student).

Summary

The purpose of this chapter was to discuss the methodology being used in this research study. It outlined the research design, instrumentation, population, procedures for data collection, data analysis, and research hypotheses. The following chapter will discuss the research findings and present a detailed analysis of those findings.

Chapter 4

Data Findings and Analysis

Introduction

The purpose of this study was to answer the following questions. First, the researcher aimed to determine if there are significant differences in instructional quality between full-time and part-time faculty teaching in a graduate education program as perceived by the students in the program. This was done using data from the 2004-05 and 2005-06 academic years. Second, the researcher used the aggregate data to determine if there is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of the academic year in which the ratings were recorded. Finally, the researcher used data from the 2006 summer courses to determine if there is an interaction between the influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables. This chapter will consist of the following sections: overview of the samples for the 2004-05 and 2005-06 data, sub-hypotheses and research findings for hypotheses 1 and 2, overview of the sample for the 2006 summer data, sub-hypotheses and research findings for hypothesis 3, and data analysis based on all of the research findings.

Overview of the Sample for 2004-05 and 2005-06 Data

The data for this first portion of the study came from the faculty course evaluations used in a graduate education program during academic years 2004-05 and 2005-06. In 2004-05, there were 89 courses taught in the graduate education program. Of

those 89 courses, 16 were taught by full-time faculty, 35 were taught by long-term adjuncts, and 38 were taught by short-term adjuncts. In 2005-06, there were 83 courses taught in the Graduate Education Program. Of those 83 courses, 20 were taught by full-time faculty, 30 were taught by long-term adjuncts, and 33 were taught by short-term adjuncts. For both years overall, there were 172 total courses, with 36 being taught by full-time faculty, 65 by long-term adjuncts, and 71 by short-term adjuncts. Table 3 illustrates these numbers:

Table 3

Samples for 2004-05 and 2005-06 Data

	2004-05	2005-06	Both years
Number of courses taught by full-time faculty	16	20	36
Number of courses taught by long-term adjuncts	35	30	65
Number of courses taught by short-term adjuncts	38	33	71
Overall totals	89	83	172

Sub-Hypotheses and Research Findings for Hypotheses 1 and 2

Research Null Hypothesis 1 stated that there would be no significant differences in instructional quality between full-time and part-time faculty as measured by students in the Graduate Education Program. This null hypothesis consisted of 15 sub-hypotheses, which correlate with 15 components of instructional quality measured on the faculty course evaluations. Listed below is each hypothesis and the statistical results of the one-way ANOVA associated with it. First the results of the one-way ANOVA on the 2004-05 data are listed, followed by the results of the one-way ANOVA on the 2005-06 data, and finally the results of the one-way ANOVA on the overall data (2004-05 and 2005-06). Due to these results, Research Null Hypothesis 1 is rejected.

Research Null Hypothesis RQ 1a

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in terms of the clarity of the learning objectives in the courses they teach. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 4 and 5. No significant differences were found in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained. However, it is important to point out that the post-hoc comparisons on the 2005-06 data showed significant differences at the .026 level between full-time faculty and long-term adjunct faculty.

Table 4

ANOVA Results on Clarity of Learning Objectives

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.004	2	.002	.016	.984
Within groups	10.649	86	.124		
Total	10.653	88			
2005-06					
Between groups	.574	2	.287	2.612	.080
Within groups	8.793	80	.110		
Total	9.367	82			
Overall					
Between groups	.307	2	.153	1.301	.275
Within groups	19.929	169	.118		
Total	20.236	171			

Table 5

Means and Standard Deviations for Clarity of Learning Objectives

	M	*SD*
2004-05		
Full-time faculty	1.5869	.45160
Long-term adjuncts	1.6037	.36814
Short-term adjuncts	1.5921	.28387
2005-06		
Full-time faculty	1.5440	.36658
Long-term adjuncts	1.7613	.37079
Short-term adjuncts	1.6552	.26531
Overall		
Full-time faculty	1.5631	.40103
Long-term adjuncts	1.6765	.37492
Short-term adjuncts	1.6214	.27527

Research Null Hypothesis RQ 1b

This hypothesis stated that there would be no significant differences between full-time faculty and part-time faculty in terms of their ability to relate course activities to the learning objectives. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 6 and 7 below. No significant differences were found in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the

overall data for both academic years. Thus this hypothesis is retained. However, it is important to point out that the post-hoc comparisons on the 2005-06 data showed significant differences at the .031 level between full-time faculty and long-term adjunct faculty.

Table 6

ANOVA Results on Relating Course Activities to Learning Objectives

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.073	2	.037	.301	.741
Within groups	10.489	86	.122		
Total	10.562	88			
2005-06					
Between groups	.558	2	.279	2.474	.091
Within groups	9.019	80	.113		
Total	9.576	82			
Overall					
Between groups	.375	2	.188	1.587	.208
Within groups	19.974	169	.118		
Total	20.349	171			

Table 7

Means and Standard Deviations for Relating Course Activities to Learning Objectives

	M	*SD*
2004-05		
Full-time faculty	1.6069	.44143
Long-term adjuncts	1.6217	.33894
Short-term adjuncts	1.5600	.31451
2005-06		
Full-time faculty	1.5465	.39070
Long-term adjuncts	1.7590	.33932
Short-term adjuncts	1.6458	.29470
Overall		
Full-time faculty	1.5733	.40903
Long-term adjuncts	1.6851	.34345
Short-term adjuncts	1.5999	.30634

Research Null Hypothesis RQ 1c

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in terms of the clarity of grading criteria in the courses they teach. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 8 and 9 below. There were no significant differences discovered in the ANOVA

on the 2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained.

Table 8

ANOVA Results on Clarity of Grading Criteria

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.042	2	.021	.170	.844
Within groups	10.650	86	.124		
Total	10.693	88			
2005-06					
Between groups	.168	2	.084	.578	.563
Within groups	11.650	80	.146		
Total	11.818	82			
Overall					
Between groups	.049	2	.025	.185	.831
Within groups	22.559	169	.133		
Total	22.608	171			

Table 9

Means and Standard Deviations for Clarity of Grading Criteria

	M	*SD*
2004-05		
Full-time faculty	1.5256	.50035
Long-term adjuncts	1.5009	.37401
Short-term adjuncts	1.5489	.24045
2005-06		
Full-time faculty	1.5080	.38918
Long-term adjuncts	1.6253	.42639
Short-term adjuncts	1.5658	.33072
Overall		
Full-time faculty	1.5158	.43542
Long-term adjuncts	1.5583	.40076
Short-term adjuncts	1.5568	.28396

Research Null Hypothesis RQ 1d

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in the level of preparedness for their courses, specifically in their ability to organize material and present it in a logical sequence. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 10 and 11 below. No significant differences were found in the ANOVA on the

2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained. However, it is important to point out that the post-hoc comparisons on the 2005-06 data showed significant differences at the .035 level between long-term adjunct faculty and short-term adjunct faculty.

Table 10

ANOVA Results on Level of Preparedness for Class

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.032	2	.016	.173	.841
Within groups	7.847	86	.091		
Total	7.878	88			
2005-06					
Between groups	.422	2	.211	2.806	.066
Within groups	6.021	80	.075		
Total	6.443	82			
Overall					
Between groups	.265	2	.133	1.590	.207
Within groups	14.105	169	.083		
Total	14.370	171			

Table 11

Means and Standard Deviations for Level of Preparedness for Class

	M	*SD*
2004-05		
Full-time faculty	1.7088	.36066
Long-term adjuncts	1.6963	.26036
Short-term adjuncts	1.6632	.31152
2005-06		
Full-time faculty	1.6645	.23422
Long-term adjuncts	1.8130	.23284
Short-term adjuncts	1.6645	.32626
Overall		
Full-time faculty	1.6842	.29330
Long-term adjuncts	1.7502	.25302
Short-term adjuncts	1.6638	.31616

Research Null Hypothesis RQ 1e

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in terms of their ability to create a learning environment in which diverse points of view are respected and can be freely expressed. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 12 and 13 below. There were no significant differences discovered in the ANOVA on the 2004-

05 data, the ANOVA on the 2005-06 data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained.

Table 12

ANOVA Results on Ability to Create a Learning Environment in Which Diverse Points of View Can Be Freely Expressed

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.080	2	.040	.414	.663
Within groups	8.358	86	.097		
Total	8.438	88			
2005-06					
Between groups	.131	2	.066	1.387	.256
Within groups	3.786	80	.047		
Total	3.918	82			
Overall					
Between groups	.099	2	.049	.639	.529
Within groups	13.032	169	.077		
Total	13.130	171			

Table 13

Means and Standard Deviations for Ability to Create a Learning Environment in Which Diverse Points of View Can Be Freely Expressed

	M	*SD*
2004-05		
Full-time faculty	1.6781	.33717
Long-term adjuncts	1.6386	.32831
Short-term adjuncts	1.5971	.28416
2005-06		
Full-time faculty	1.7155	.24117
Long-term adjuncts	1.8130	.18705
Short-term adjuncts	1.7445	.22821
Overall		
Full-time faculty	1.6989	.28399
Long-term adjuncts	1.7191	.28425
Short-term adjuncts	1.6656	.26828

Research Null Hypothesis RQ 1f

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in terms of the level of difficulty in the courses they teach (i.e., are the courses challenging enough?). ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 14 and 15 below. There were no significant differences discovered in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06

data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained.

Table 14

ANOVA Results on the Difficulty Level of Courses

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.020	2	.010	.075	.928
Within groups	11.585	86	.135		
Total	11.605	88			
2005-06					
Between groups	.404	2	.202	1.679	.193
Within groups	9.620	80	.120		
Total	10.024	82			
Overall					
Between groups	.247	2	.124	.975	.379
Within groups	21.421	169	.127		
Total	21.668	171			

Table 15

Means and Standard Deviations for Difficulty Level of Courses

	M	*SD*
2004-05		
Full-time faculty	1.4138	.52671
Long-term adjuncts	1.4206	.36975
Short-term adjuncts	1.3884	.27387
2005-06		
Full-time faculty	1.3475	.32394
Long-term adjuncts	1.5227	.37530
Short-term adjuncts	1.4103	.33269
Overall		
Full-time faculty	1.3769	.42069
Long-term adjuncts	1.4677	.37294
Short-term adjuncts	1.3986	.30061

Research Null Hypothesis RQ 1g

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in terms of their availability to students outside the classroom. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 16 and 17 below. There were no significant differences discovered in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained.

Table 16

ANOVA Results on the Availability of Faculty Outside the Classroom

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.015	2	.008	.106	.900
Within groups	6.266	86	.073		
Total	6.281	88			
2005-06					
Between groups	.037	2	.018	.370	.692
Within groups	3.971	80	.050		
Total	4.008	82			
Overall					
Between groups	.063	2	.032	.511	.601
Within groups	10.447	169	.062		
Total	10.510	171			

Table 17

Means and Standard Deviations for Availability of Faculty Outside the Classroom

	M	*SD*
2004-05		
Full-time faculty	1.6256	.27213
Long-term adjuncts	1.6123	.30179
Short-term adjuncts	1.5916	.23587
2005-06		
Full-time faculty	1.7110	.15576
Long-term adjuncts	1.6780	.26926
Short-term adjuncts	1.6567	.20976
Overall		
Full-time faculty	1.6731	.21624
Long-term adjuncts	1.6426	.28692
Short-term adjuncts	1.6218	.22492

Research Null Hypothesis RQ 1h

This hypothesis stated that there would be no differences between full-time and part-time faculty in terms of the level to which they care about their students. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 18 and 19 below. There were no significant differences discovered in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained.

Table 18

ANOVA Results on the Level to Which Faculty Care About Students

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.001	2	.001	.008	.992
Within groups	6.069	85	.071		
Total	6.070	87			
2005-06					
Between groups	.020	2	.010	.261	.771
Within groups	3.017	80	.038		
Total	3.037	82			
Overall					
Between groups	.003	2	.001	.024	.976
Within groups	9.547	168	.057		
Total	9.550	170			

Table 19

Means and Standard Deviations for Level to Which Faculty Care About Students

	M	*SD*
2004-05		
Full-time faculty	1.6788	.31807
Long-term adjuncts	1.6700	.28531

Table 19 (continued).

	M	*SD*
Short-term adjuncts	1.6765	.22258
2005-06		
Full-time faculty	1.7605	.25446
Long-term adjuncts	1.7963	.15852
Short-term adjuncts	1.7673	.18187
Overall		
Full-time faculty	1.7242	.28321
Long-term adjuncts	1.7283	.24219
Short-term adjuncts	1.7193	.20802

Research Null Hypothesis RQ 1i

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in the level of appropriateness of their choice of readings for the courses they teach. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 20 and 21 below. There were no significant differences discovered in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the overall data for both academic years. Thus this hypothesis is retained.

Table 20

ANOVA Results on the Level of Appropriateness of Course Readings

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.032	2	.016	.154	.857
Within groups	8.935	85	.105		
Total	8.967	87			
2005-06					
Between groups	.303	2	.152	1.766	.178
Within groups	6.865	80	.086		
Total	7.168	82			
Overall					
Between groups	.229	2	.115	1.186	.308
Within groups	16.247	168	.097		
Total	16.476	170			

Table 21

Means and Standard Deviations for Level of Appropriateness of Course Readings

	M	*SD*
2004-05		
Full-time faculty	1.5400	.41150
Long-term adjuncts	1.5943	.30047

Table 21 (continued).

	M	*SD*
Short-term adjuncts	1.5784	.30391
2005-06		
Full-time faculty	1.5735	.39129
Long-term adjuncts	1.7323	.24336
Short-term adjuncts	1.6645	.26448
Overall		
Full-time faculty	1.5586	.39493
Long-term adjuncts	1.6580	.28215
Short-term adjuncts	1.6190	.28724

Research Null Hypothesis RQ 1j

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in terms of whether work is returned to students in a timely, constructive manner. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 22 and 23 below. There were no significant differences discovered in the ANOVA on the 2004-05 data. However, there were significant differences discovered in both the ANOVA on the 2005-06 data and the ANOVA on the overall data for both academic years. In the ANOVA on the 2005-06 data, significant differences occurred at the .023 level. In the ANOVA on the overall data for both

academic years, significant differences occurred at the .05 level. Thus this hypothesis is rejected.

Table 22

ANOVA Results on Whether Work is Returned in a Timely, Constructive Manner

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.171	2	.085	.831	.439
Within groups	8.824	86	.103		
Total	8.994	88			
2005-06					
Between groups	1.110	2	.555	3.979	.023
Within groups	11.160	80	.139		
Total	12.270	82			
Overall					
Between groups	.745	2	.372	3.053	.050
Within groups	20.607	169	.122		
Total	21.352	171			

Table 23

Means and Standard Deviations for Whether Work is Returned in a Timely, Constructive Manner

	M	*SD*
2004-05		
Full-time faculty	1.6519	.29508
Long-term adjuncts	1.6449	.24604
Short-term adjuncts	1.5587	.38412
2005-06		
Full-time faculty	1.5050	.57182
Long-term adjuncts	1.7973	.20055
Short-term adjuncts	1.6152	.34374
Overall		
Full-time faculty	1.5703	.46936
Long-term adjuncts	1.7152	.23718
Short-term adjuncts	1.5849	.36443

Research Null Hypothesis RQ 1k

This hypothesis stated that there would be no significant differences between full-time and part-time faculty in terms of whether student grades reflect a fair evaluation by the professor. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 24 and 25 below. No significant differences were found in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06 data, or the ANOVA on the

overall data for both academic years. Thus this hypothesis is retained. However, it is important to point out that the post-hoc comparisons on the overall data from both academic years showed significant differences at the .024 level between long-term adjunct faculty and short-term adjunct faculty.

Table 24

ANOVA Results on Whether Grades Reflect a Fair Evaluation by the Professor

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	.880	2	.440	2.585	.081
Within groups	14.641	86	.170		
Total	15.521	88			
2005-06					
Between groups	.248	2	.124	1.317	.274
Within groups	7.542	80	.094		
Total	7.790	82			
Overall					
Between groups	.785	2	.393	2.797	.064
Within groups	23.724	169	.140		
Total	24.510	171			

Table 25

Means and Standard Deviations for Whether Grades Reflect a Fair Evaluation by the Professor

	M	*SD*
2004-05		
Full-time faculty	1.6581	.29851
Long-term adjuncts	1.6111	.27759
Short-term adjuncts	1.4276	.53737
2005-06		
Full-time faculty	1.6555	.42762
Long-term adjuncts	1.7803	.21996
Short-term adjuncts	1.6748	.28854
Overall		
Full-time faculty	1.6567	.37075
Long-term adjuncts	1.6892	.26474
Short-term adjuncts	1.5425	.45400

Research Null Hypothesis RQ 1l

This hypothesis stated that there would be no significant differences between full-time and part-time faculty regarding the effective use of e-mail in their courses. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 26 and 27 below. Significant differences were found in the ANOVA on the 2004-05 data, the ANOVA on the 2005-06 data, and the ANOVA on the overall data from both academic

years. In the ANOVA on the 2004-05 data, significant differences occurred at the .001 level. In the ANOVA on the 2005-06 data, significant differences occurred at the .043 level. The ANOVA on the overall data from both academic years showed significant differences at the .000 level. Thus this hypothesis is rejected.

Table 26

ANOVA Results on the Effective Use of E-Mail

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	5.104	2	2.552	7.396	.001
Within groups	29.679	86	.345		
Total	34.783	88			
2005-06					
Between groups	2.219	2	1.110	3.262	.043
Within groups	27.216	80	.340		
Total	29.435	82			
Overall					
Between groups	7.025	2	3.512	10.359	.000
Within groups	57.302	169	.339		
Total	64.327	171			

Table 27

Means and Standard Deviations for Effective Use of E-mail

	M	*SD*
2004-05		
Full-time faculty	1.6144	.25685
Long-term adjuncts	.9346	.71369
Short-term adjuncts	1.1850	.55437
2005-06		
Full-time faculty	1.4575	.40881
Long-term adjuncts	1.0297	.69030
Short-term adjuncts	1.2345	.56517
Overall		
Full-time faculty	1.5272	.35391
Long-term adjuncts	.9785	.69914
Short-term adjuncts	1.2080	.55595

Research Null Hypothesis RQ 1m

This hypothesis stated that there would be no significant differences between full-time and part-time faculty regarding the effective use of films, videos, and DVDs in their courses. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 28 and 29 below. Significant differences were found in the ANOVA on the 2004-05 data and the ANOVA on the overall data from both academic years. The

ANOVA on the 2005-06 data showed no significant differences. In the ANOVA on the 2004-05 data, significant differences occurred at the .001 level. The ANOVA on the overall data from both academic years showed significant differences at the .001 level. Thus this hypothesis is rejected.

Table 28

ANOVA Results on the Effective Use of Films, Videos, and DVDs

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	8.217	2	4.108	7.034	.001
Within groups	50.229	86	.584		
Total	58.446	88			
2005-06					
Between groups	2.169	2	1.085	1.629	.202
Within groups	53.252	80	.666		
Total	55.421	82			
Overall					
Between groups	9.256	2	4.628	7.437	.001
Within groups	105.166	169	.622		
Total	114.422	171			

Table 29

Means and Standard Deviations for Effective Use of Films, Videos, and DVDs

	M	*SD*
2004-05		
Full-time faculty	1.5506	.49170
Long-term adjuncts	.7103	.78506
Short-term adjuncts	.8282	.83258
2005-06		
Full-time faculty	1.2795	.61348
Long-term adjuncts	.8543	.86465
Short-term adjuncts	1.0267	.87357
Overall		
Full-time faculty	1.4000	.57148
Long-term adjuncts	.7768	.81941
Short-term adjuncts	.9204	.85158

Research Null Hypothesis RQ 1n

This hypothesis stated that there would be no significant differences between full-time and part-time faculty regarding the effective use of slides, PowerPoint, transparencies and/or overheads in their courses. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 30 and 31 below. Significant differences were found in the ANOVA on the 2004-05 data, the ANOVA on

the 2005-06 data, and the ANOVA on the overall data from both academic years. In the ANOVA on the 2004-05 data, significant differences occurred at the .001 level. In the ANOVA on the 2005-06 data, significant differences occurred at the .015 level. The ANOVA on the overall data from both academic years showed significant differences at the .000 level. Thus this hypothesis is rejected.

Table 30

ANOVA Results on the Effective Use of Slides, PowerPoint, Transparencies and/or Overheads

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	9.027	2	4.514	7.058	.001
Within groups	54.997	86	.639		
Total	64.024	88			
2005-06					
Between groups	5.340	2	2.670	4.409	.015
Within groups	48.447	80	.606		
Total	53.787	82			
Overall					
Between groups	14.426	2	7.213	11.637	.000
Within groups	104.754	169	.620		
Total	119.180	171			

Table 31

Means and Standard Deviations for Effective Use of Slides, PowerPoint, Transparencies and/or Overheads

	M	*SD*
2004-05		
Full-time faculty	1.5406	.48786
Long-term adjuncts	.6340	.92919
Short-term adjuncts	.9100	.77235
2005-06		
Full-time faculty	1.5380	.40063
Long-term adjuncts	.9043	.83513
Short-term adjuncts	.9958	.88691
Overall		
Full-time faculty	1.5392	.43489
Long-term adjuncts	.7588	.89059
Short-term adjuncts	.9499	.82265

Research Null Hypothesis RQ 1o

This hypothesis stated that there would be no significant differences between full-time and part-time faculty regarding the effective use of the computer program "Blackboard" in their courses. ANOVA was used to test this hypothesis, as full-time faculty were compared with both long-term adjunct faculty and short-term adjunct faculty. The results are presented in Tables 32 and 33 below. There were no significant differences found in the ANOVA on the 2004-05 data or the ANOVA on the 2005-06

data. The ANOVA on the overall data from both academic years showed significant differences at the .035 level. Thus this hypothesis is rejected.

Table 32

ANOVA Results on the Effective Use of Blackboard

	Sum of squares	*df*	*MS*	*F*	Sig.
2004-05					
Between groups	1.255	2	.628	2.173	.120
Within groups	24.835	86	.289		
Total	26.090	88			
2005-06					
Between groups	.758	2	.379	2.054	.135
Within groups	14.751	80	.184		
Total	15.509	82			
Overall					
Between groups	1.616	2	.808	3.412	.035
Within groups	40.025	169	.237		
Total	41.641	171			

Table 33

Means and Standard Deviations for Effective Use of Blackboard

	M	*SD*
2004-05		
Full-time faculty	1.6656	.41270
Long-term adjuncts	1.3446	.66274
Short-term adjuncts	1.3700	.44560
2005-06		
Full-time faculty	1.5655	.40014
Long-term adjuncts	1.4863	.39526
Short-term adjuncts	1.3327	.47363
Overall		
Full-time faculty	1.6100	.40306
Long-term adjuncts	1.4100	.55606
Short-term adjuncts	1.3527	.45591

Research Null Hypothesis RQ2

This hypothesis stated that there is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the academic year in which the ratings were recorded. A two-way ANOVA on the aggregate data for both academic years was used to test this hypothesis. The results showed no interaction between the influence of faculty type and the influence of the academic year in which the ratings were recorded for any of the 15 components of instructional quality used in this

study. Thus this hypothesis is retained. However, it is important to point out that there were significant differences in a number of variables when the effects of faculty type and academic year were observed separately. First, it was discovered that five dependent variables showed significant differences in the mean by faculty type only. These were variable 10 (whether work is returned in a timely, constructive manner), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .046 level for variable 10, the .000 level for variable 12, the .001 level for variable 13, the .000 level for variable 14, and the .032 level for variable 15. The results are presented in Table 34 below.

Table 34

Two-Way ANOVA Results Showing Mean Differences by Faculty Type Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
10	.756	2	.378	3.140	.046
12	7.075	2	3.537	10.321	.000
13	9.444	2	4.722	7.575	.001
14	13.936	2	6.968	11.182	.000
15	1.675	2	.837	3.511	.032

Second, it was discovered that three dependent variables showed significant differences in the mean by academic year only. These were variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 8 (whether the instructor generally cares about students), and variable 11 (whether grades reflect a fair evaluation by the instructor). The differences were significant at the .006 level for variable 5, the .009 level for variable 8, and the .02 level for variable 11. The results are presented in Table 35 below.

Table 35

Two-Way ANOVA Results Showing Mean Differences by Academic Year Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
5	.559	1	.559	7.636	.006
8	.385	1	.385	7.000	.009
11	.741	1	.741	5.546	.020

Overview of Sample for Summer 2006 Data

The final aspect of this study focused on the data collected during the summer of 2006. For this part of the study, a survey was attached to each faculty course evaluation sheet administered at the end of each course. The survey contained five questions and aimed to collect demographic data on each student filling out a faculty course evaluation. A copy of the survey can be viewed in Appendix A. The results of the survey are listed in Table 36 below. The table lists the possible answers to each question (i.e., a, b, c, d) and

the number of respondents who selected that particular answer. So for example, if you look at Survey Question 1 for the courses taught by full-time faculty, you will see that 10 students chose (a) as their answer, 9 students selected (b), 26 answered (c), and 42 answered (d). The overall totals for each survey question are listed in the last column.

Table 36

Results of Student Demographics Survey (Summer 2006)

	Courses taught by full-time faculty	Courses taught by long-term adjuncts	Courses taught by short-term adjuncts	Overall totals
Survey question	10(a)	23(a)	21(a)	54(a)
1	9(b)	7(b)	5(b)	21(b)
	26(c)	52(c)	16(c)	94(c)
	42(d)	132(d)	65(d)	239(d)
Survey question	16(a)	72(a)	35(a)	123(a)
2	36(b)	118(b)	60(b)	214(b)
	13(c)	11(c)	6(c)	30(c)
	22(d)	13(d)	6(d)	41(d)
Survey question	25(a)	81(a)	44(a)	150(a)
3	37(b)	78(b)	39(b)	154(b)
	16(c)	39(c)	15(c)	70(c)
	7(d)	11(d)	7(d)	25(d)
	1(e)	4(e)	1(e)	6(e)
	1(f)	1(f)	1(f)	3(f)

Table 36 (continued).

	Courses taught by full-time faculty	Courses taught by long-term adjuncts	Courses taught by short-term adjuncts	Overall totals
Survey question	64(a)	163(a)	80(a)	307(a)
4	14(b)	34(b)	17(b)	65(b)
	6(c)	13(c)	9(c)	28(c)
	2(d)	4(d)	1(d)	7(d)
	1(f)			1(f)
Survey question	69(a)	182(a)	82(a)	333(a)
5	9(b)	8(b)	7(b)	24(b)
	2(c)		1(c)	3(c)
	7(f)	24(f)	17(f)	48(f)

Due to various imbalances in the results of the survey, much of the data were recoded before running the two-way ANOVA tests. The process of recoding will be explained in each individual section below.

Research Null Hypothesis RQ3

This hypothesis stated that there is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables. A number of two-way ANOVA tests on the summer 2006 data were used to test this hypothesis. The results showed a definitive interaction between the

influence of faculty type on student ratings of instructional quality and the influence of various student demographic variables. Thus this hypothesis is rejected. Listed below are the five sub-hypotheses for Research Null Hypothesis 3, complete with the results of the two-way ANOVA for each one.

Research Null Hypothesis RQ 3a

This hypothesis stated that there is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the student's matriculation status. A two-way ANOVA on the summer 2006 data was used to test this hypothesis. In order to run the two-way ANOVA, the data were recoded. The original question asked how many credits the students had previously completed in the graduate program. The choices were (a) 0, (b) 3, (c) 6-12, and (d) more than 12. Due to an imbalance in the responses, the data were recoded so that choices a, b, and c were combined into one group. This created two groups of students: those with 12 credits or less (non-matriculated) and those with more than 12 credits (matriculated). The results of the two-way ANOVA showed no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the student's matriculation status. Thus this hypothesis is retained. However, it is important to point out that there were significant differences in a number of variables when the effects of faculty type and matriculation status were observed separately. First, it was discovered that seven dependent variables showed significant differences in the mean by faculty type only. These were variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades

reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .014 level for variable 2, the .000 level for variable 10, the .001 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000 level for variable 15. The results are presented in Tables 37 and 38 below.

Table 37

Two-Way ANOVA Results Showing Mean Differences by Faculty Type Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
2	2.056	2	1.028	4.298	.014
10	6.550	2	3.275	13.296	.000
11	2.736	2	1.368	6.988	.001
12	34.920	2	17.460	21.885	.000
13	45.296	2	22.648	21.790	.000
14	54.036	2	27.018	29.380	.000
15	13.674	2	6.837	14.227	.000

Table 38

Means and Standard Deviations for Faculty Type Only

Variable	*M* full-time faculty	*SD* full-time faculty	*M* long-term adjuncts	*SD* long-term adjuncts	*M* short-term adjuncts	*SD* short-term adjuncts
2	1.6667	.60361	1.8271	.40306	1.6636	.54848
10	1.7586	.45662	1.8411	.37902	1.5327	.69115
11	1.7816	.41555	1.8318	.37494	1.6168	.57699
12	1.6437	.57013	.8832	.88832	1.2056	1.09664
13	1.2989	.80860	.5234	.96751	1.0935	1.24030
14	1.6207	.65132	.7009	.91636	1.1215	1.21088
15	1.7931	.40743	1.3458	.75187	1.5140	.75691

Next, it was discovered that six dependent variables showed significant differences in the mean by matriculation status only. These were variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 6 (whether the course is challenging enough), variable 8 (whether the instructor generally cares about students), and variable 9 (appropriateness of course readings). The differences were significant at the .014 level for variable 1, the .04 level for variable 2, the .05 level for variable 5, the .046 level for variable 6, the .002

level for variable 8, and the .017 level for variable 9. The results are presented in Tables 39 and 40 below.

Table 39

Two-Way ANOVA Results Showing Mean Differences by Matriculation Status Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	1.512	1	1.512	6.140	.014
2	1.017	1	1.017	4.252	.040
5	.624	1	.624	3.811	.052
6	2.316	1	2.316	4.015	.046
8	1.547	1	1.547	9.740	.002
9	1.470	1	1.470	5.717	.017

Table 40

Means and Standard Deviations for Matriculation Status Only

Variable	*M* matriculated students	*SD* matriculated students	*M* non-matriculated students	*SD* non-matriculated students
1	1.8117	.44215	1.6627	.56577
2	1.8033	.46633	1.6746	.52949
5	1.8661	.37638	1.7633	.44005

Table 40 (continued).

Variable	*M* matriculated students	*SD* matriculated students	*M* non-matriculated students	*SD* non-matriculated students
6	1.5314	.76563	1.3432	.74839
8	1.8787	.35195	1.7278	.45955
9	1.7699	.45069	1.6331	.57349

Research Null Hypothesis RQ 3b

This hypothesis stated that there is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of whether the students are taking a course which counts toward their degree foundation, degree concentration, or some other area (e.g., electives or non-degree certification). A two-way ANOVA on the summer 2006 data was used to test this hypothesis. In order to run the two-way ANOVA, the data were recoded. The original question asked the students what the course was counting toward for them. The choices were (a) degree foundation, (b) degree concentration, (c) electives, and (d) non-degree certification. Due to an imbalance in the responses, the data were recoded so that choices c and d were combined into one group. This created three groups of students: those who were taking a course counting toward their degree foundation, those who were taking a course counting toward their degree concentration, and those who were taking a course that counted toward neither the

degree foundation nor degree concentration. The results of the two-way ANOVA showed a definitive interaction between the influence of faculty type and the influence of the purpose for which the student is taking the course on two dependent variables: variable 1 (clarity of learning objectives) and variable 10 (whether work is returned in a timely, constructive manner). The interaction of the two independent variables was significant at the .012 level for variable 1 and at the .047 level for variable 10. Thus this hypothesis is rejected. The results of the ANOVA are presented in Table 41 below.

Table 41

Two-Way ANOVA Results Showing Interaction between Faculty Type and Purpose for Which the Student is Taking the Course

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	3.199	4	.800	3.278	.012
10	2.347	4	.587	2.430	.047

The profile plots for these interaction effects are shown in Figure 1 and Figure 2 below. For faculty type, 1 = full-time faculty, 2 = long-term adjuncts, and 3 = short-term adjuncts. On the horizontal axis, 1 = students who took the course toward their degree foundation, 2 = students who took the course toward their degree concentration, and 3 = students who neither took the course toward their degree foundation nor degree concentration (i.e., as an elective).

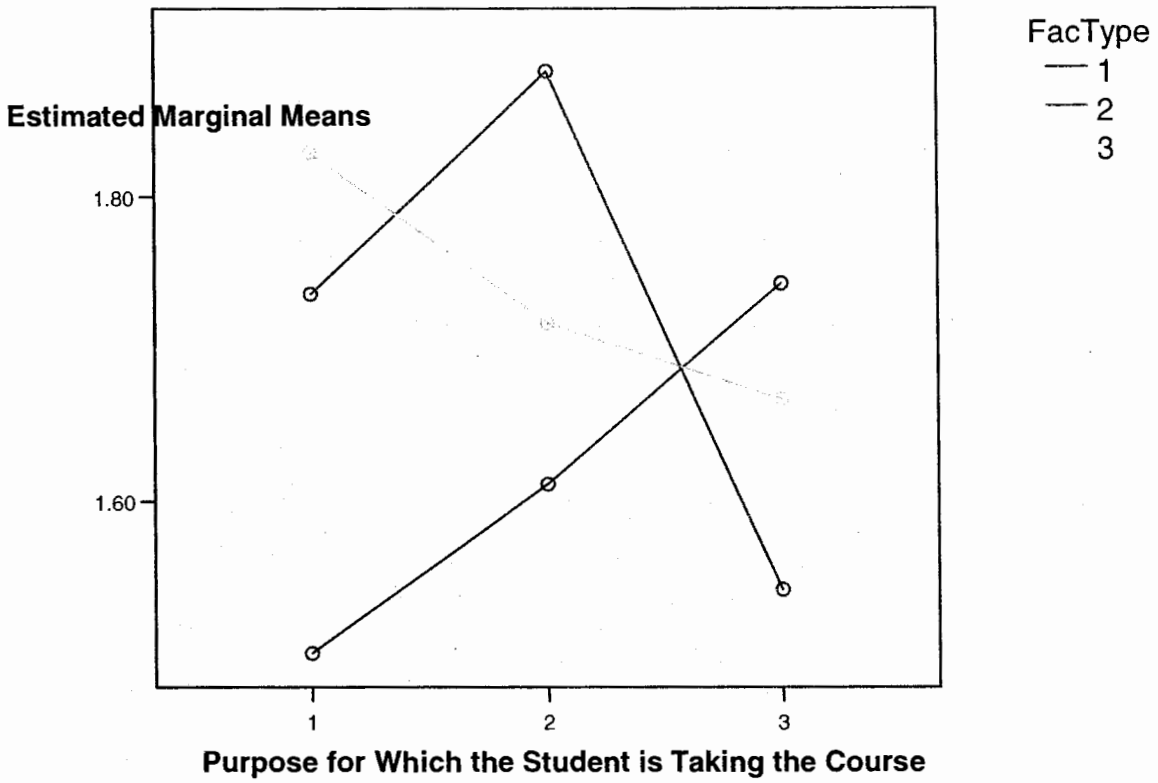

Figure 1. **Estimated marginal means for clarity of learning objectives (interaction between faculty type and the purpose for which the student is taking the course).**

These estimated marginal means have a disordinal relationship. Students who took the course toward their degree foundation ranked short-term adjuncts the highest, followed by long-term adjuncts and full-time faculty. Students who took the course toward their degree concentration ranked long-term adjuncts the highest, followed by short-term adjuncts and full-time faculty. However, students who took the course as an elective (i.e., neither toward their degree foundation nor degree concentration) ranked full-time faculty the highest, followed by short-term adjuncts and long-term adjuncts.

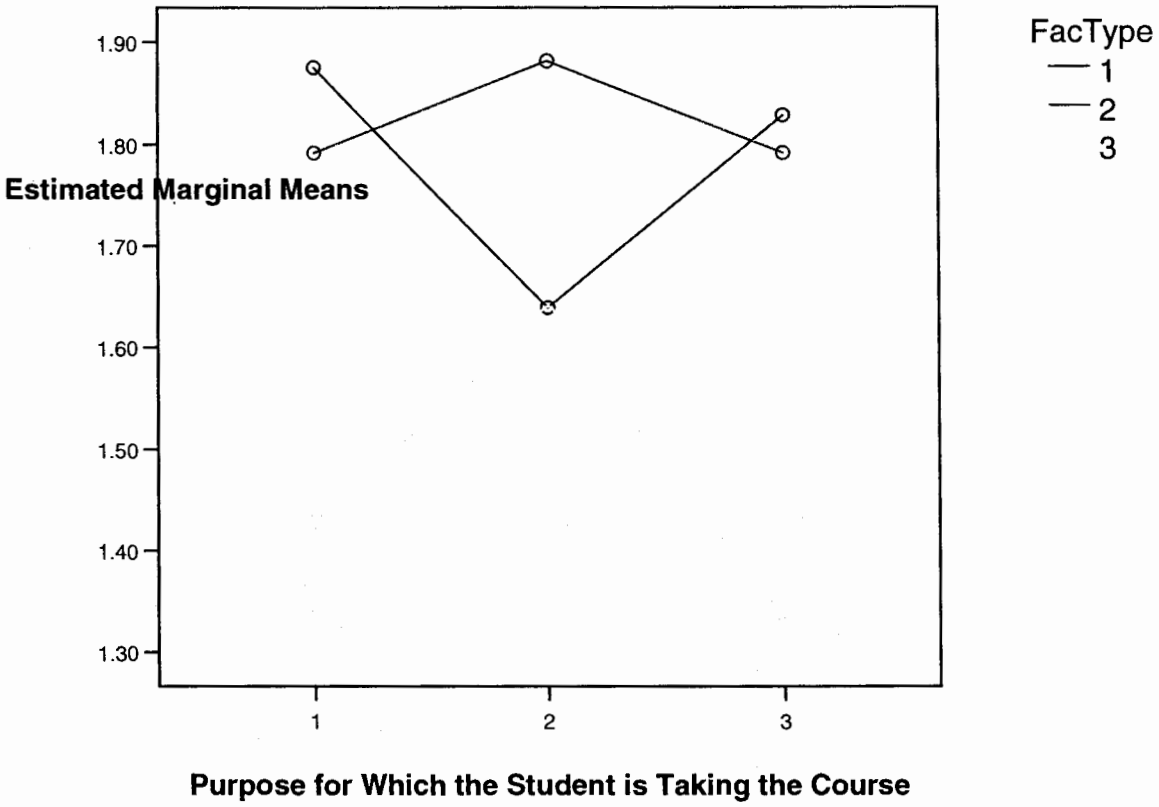

Figure 2. **Estimated marginal means for whether work is returned in a timely, constructive manner (interaction between faculty type and the purpose for which the student is taking the course).**

There exists an ordinal relationship between the marginal means for long-term and short-term adjuncts with regard to whether work is returned in a timely, constructive manner for Survey Question 2. All three groups of students rated long-term adjuncts consistently higher than short-term adjuncts. However, there is a disordinal relationship between both groups of adjuncts and full-time faculty. Students who took the course toward their degree foundation rated full-time faculty the highest, followed by long-term adjuncts and short-term adjuncts. Students who took the course toward their degree concentration rated long-term adjuncts higher than full-time faculty, who in turn were rated slightly higher than short-term adjuncts. Students who took the course as an elective (i.e., neither toward their degree foundation nor degree concentration) rated full-time faculty slightly higher than long-term adjuncts, while both groups of faculty were rated higher than short-term adjuncts.

It is also important to point out that there were significant differences in a number of dependent variables when the effect of faculty type was observed separately. In all, it was discovered that six dependent variables showed significant differences in the mean by faculty type only. These were variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .000 level for variable 10, the .005 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000 level for variable 15. The results are presented in Tables 42 and 43 below.

Table 42

Two-Way ANOVA Results Showing Mean Differences by Faculty Type Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
10	6.275	2	3.138	12.990	.000
11	2.140	2	1.070	5.379	.005
12	23.422	2	11.711	14.632	.000
13	28.824	2	14.412	13.890	.000
14	35.334	2	17.667	19.378	.000
15	10.266	2	5.133	10.510	.000

Table 43

Means and Standard Deviations for Faculty Type Only

Variable	*M* Full-time faculty	*SD* Full-time faculty	*M* Long-term adjuncts	*SD* Long-term adjuncts	*M* Short-term adjuncts	*SD* Short-term adjuncts
10	1.7586	.45662	1.8411	.37902	1.5327	.69115
11	1.7816	.41555	1.8318	.37494	1.6168	.57699
12	1.6437	.57013	.8832	.88832	1.2056	1.09664

Table 43 (continued).

Variable	*M* Full-time faculty	*SD* Full-time faculty	*M* Long-term adjuncts	*SD* Long-term adjuncts	*M* Short-term adjuncts	*SD* Short-term adjuncts
13	1.2989	.80860	.5234	.96751	1.0935	1.24030
14	1.6207	.65132	.7009	.91636	1.1215	1.21088
15	1.7931	.40743	1.3458	.75187	1.5140	.75691

Research Null Hypothesis RQ 3c

This hypothesis stated that there is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of how many hours per week the student spends on outside work for the course. A two-way ANOVA on the summer 2006 data was used to test this hypothesis. In order to run the two-way ANOVA, the data were recoded. The original question asked the students how many hours of work per week they spend outside of class on average. The choices were (a) 1-3, (b) 4-6, (c) 7-9, (d) 10-12, (e) 13-15, and (f) more than 15. Due to an imbalance in the responses, the data were recoded so that choices c, d, e, and f were combined into one group. This created three groups of students: those who spend 1 to 3 hours per week on outside work for the course, those who spend 4 to 6 hours per week on outside work for the course, and those who spend 7 hours or more per week on outside work for the course. The results of the two-way ANOVA showed a definitive interaction between the

influence of faculty type and the influence of the number of hours spent per week on outside work for the course on three dependent variables: variable 1 (clarity of learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), and variable 8 (whether the instructor generally cares about students). The interaction of the two independent variables was significant at the .037 level for variable 1, the .027 level for variable 5, and at the .017 level for variable 8. Thus this hypothesis is rejected. The results are presented in Table 44 below.

Table 44

Two-Way ANOVA Results Showing Interaction between Faculty Type and Hours Spent Per Week on Outside Work for the Course

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	2.520	4	.630	2.573	.037
5	1.796	4	.449	2.765	.027
8	1.934	4	.483	3.047	.017

The profile plots for these interaction effects are shown in Figure 3, Figure 4, and Figure 5 below. For faculty type, 1 = full-time faculty, 2 = long-term adjuncts, and 3 = short-term adjuncts. On the horizontal axis, 1 = students who spent 1 to 3 hours per week on outside work for the course, 2 = students who spent 4 to 6 hours per week, and 3 = students who spent 7 hours or more per week on outside work for the course.

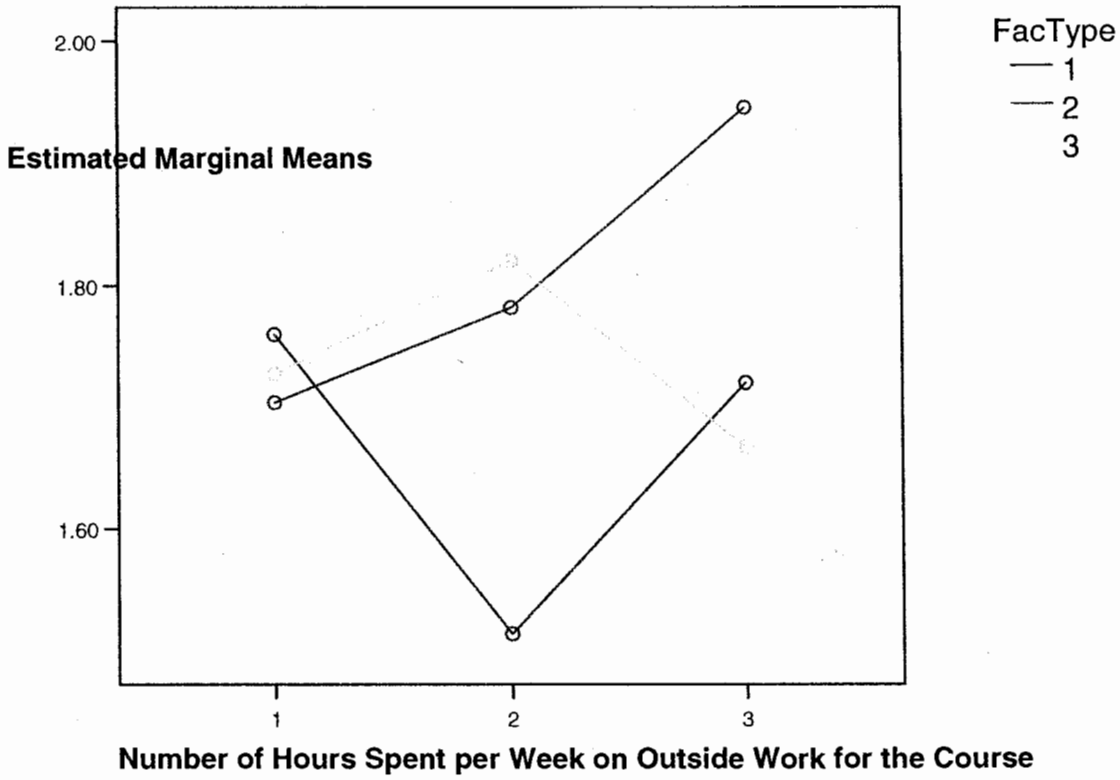

Figure 3. **Estimated marginal means for clarity of learning objectives (interaction between faculty type and number of hours spent per week on outside work for the course).**

There exists a disordinal relationship among these marginal means with regard to clarity of learning objectives for Survey Question 3. Students who spent 1 to 3 hours per week on outside work ranked full-time faculty higher than short-term adjuncts, who in turn were rated higher than long-term adjuncts. Students who spent 4 to 6 hours per week on outside work rated short-term adjuncts the highest, followed by long-term adjuncts and then full-time faculty. Finally, students who spent 7 or more hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and then short-term adjuncts.

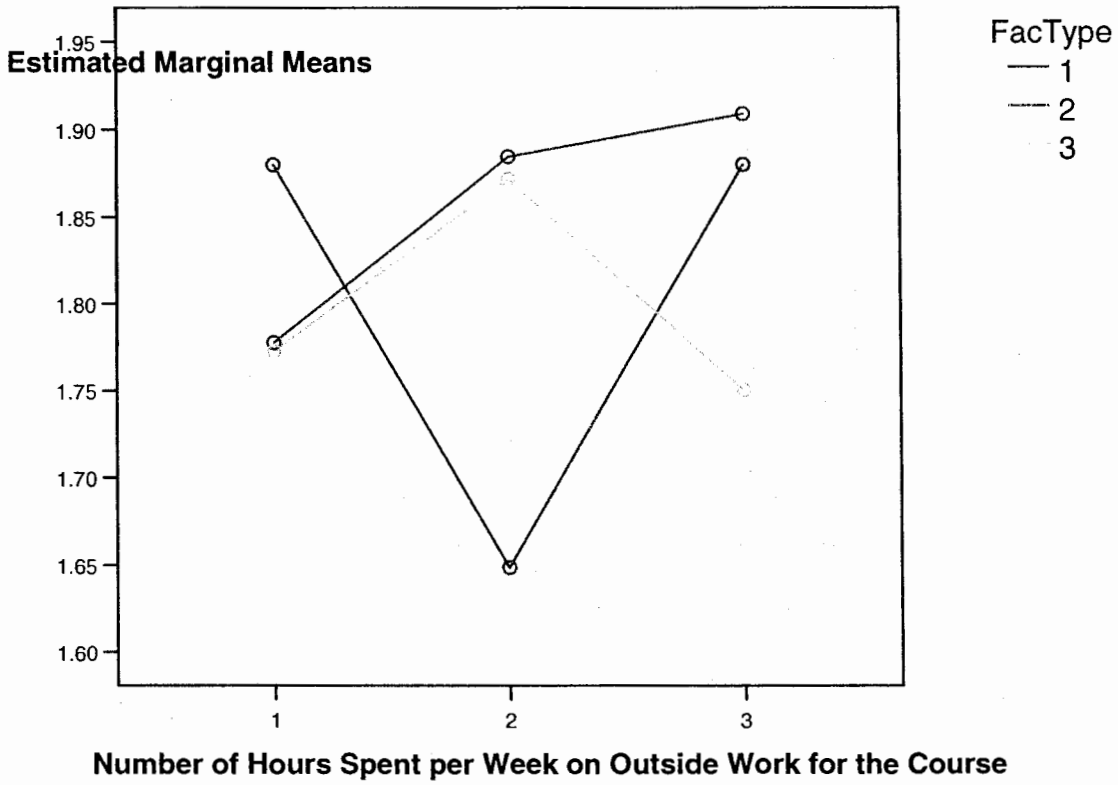

Figure 4. **Estimated marginal means for instructor's ability to create a learning environment in which diverse points of view are respected (interaction between faculty type and number of hours spent per week on outside work for the course).**

There exists an ordinal relationship between the marginal means for short-term and long-term adjuncts with regard to the instructor's ability to create a learning environment in which diverse points of view are respected for Survey Question 3. Students who spent 1 to 3 hours per week on outside work ranked long-term adjuncts slightly higher than short-term adjuncts. Students who spent 4 to 6 hours per week or 7 or more hours per week on outside work also ranked long-term adjuncts higher than short-term adjuncts. However, there is a disordinal relationship between the marginal means for full-time faculty and the marginal means for both long-term and short-term adjuncts. Students who spent 1 to 3 hours per week on outside work ranked full-time faculty the highest among the three groups of faculty, while students who spent 4 to 6 hours per week on outside work ranked full-time faculty the lowest among the three groups. Students who spent 7 or more hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and then short-term adjuncts.

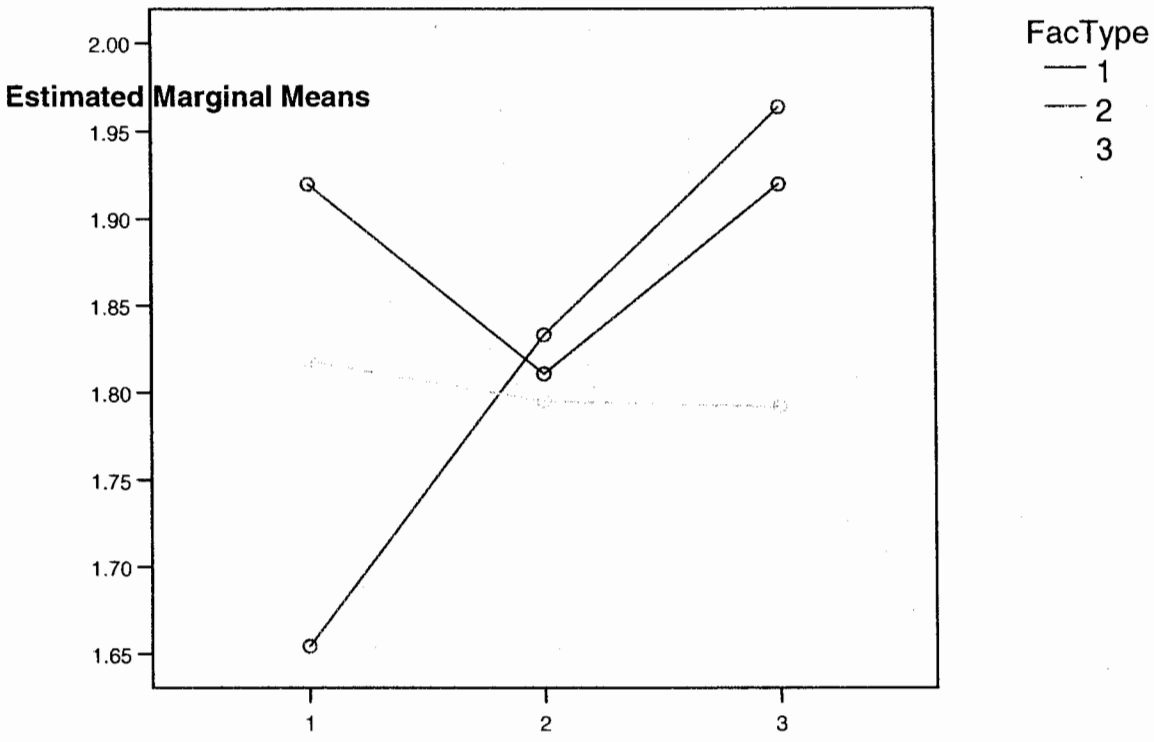

Figure 5. **Estimated marginal means for whether the instructor generally cares about students (interaction between faculty type and number of hours spent per week on outside work for the course).**

There exists an ordinal relationship between full-time faculty and short-term adjuncts with regard to whether the instructor generally cares about students for Survey Question 3. Full-time faculty were rated higher than short-term adjuncts among all three groups of students. However, there is a disordinal relationship between long-term adjuncts and the other two groups of faculty. Those students who spent 1 to 3 hours per week on outside work ranked full-time faculty the highest, followed by short-term adjuncts and then long-term adjuncts. Students who spent 4 to 6 hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and short-term adjuncts. Finally, students who spent 7 or more hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and then short-term adjuncts.

It is also important to point out that there were significant differences in a number of dependent variables when the effects of faculty type and the number of hours spent per week on outside work for the course were observed separately. First, it was discovered that seven dependent variables showed significant differences in the mean by faculty type only. These were variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .003 level for variable 2, the .000

level for variable 10, the .001 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000 level for variable 15. The results are presented in Tables 45 and 46 below.

Table 45

Two-Way ANOVA Results Showing Mean Differences by Faculty Type Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
2	2.797	2	1.398	5.837	.003
10	6.289	2	3.144	12.835	.000
11	3.066	2	1.533	7.706	.001
12	33.487	2	16.744	20.990	.000
13	43.052	2	21.526	20.840	.000
14	52.535	2	26.268	28.689	.000
15	11.575	2	5.787	11.979	.000

Table 46

Means and Standard Deviations for Faculty Type Only

Variable	*M* Full-time faculty	*SD* Full-time faculty	*M* Long-term adjuncts	*SD* Long-term adjuncts	*M* Short-term adjuncts	*SD* Short-term adjuncts
2	1.6667	.60361	1.8271	.40306	1.6636	.54848

Table 46 (continued).

Variable	*M* Full-time faculty	*SD* Full-time faculty	*M* Long-term adjuncts	*SD* Long-term adjuncts	*M* Short-term adjuncts	*SD* Short-term adjuncts
10	1.7586	.45662	1.8411	.37902	1.5327	.69115
11	1.7816	.41555	1.8318	.37494	1.6168	.57699
12	1.6437	.57013	.8832	.88832	1.2056	1.09664
13	1.2989	.80860	.5234	.96751	1.0935	1.24030
14	1.6207	.65132	.7009	.91636	1.1215	1.21088
15	1.7931	.40743	1.3458	.75187	1.5140	.75691

Next, it was discovered that two dependent variables showed significant differences in the mean when the number of hours spent per week on outside work for the course was the lone independent variable. These were variable 4 (instructor's level of preparedness for class) and variable 6 (whether the course is challenging enough). The differences were significant at the .047 level for variable 4 and the .000 level for variable 6. The results are presented in Tables 47 and 48 below.

Table 47

Two-Way ANOVA Results Showing Mean Differences by Hours Spent Per Week on Outside Work for the Course only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
4	1.586	2	.793	3.072	.047
6	9.420	2	4.710	8.428	.000

Table 48

Means and Standard Deviations for Hours Spent Per Week on Outside Work for the Course only

Variable	*M* Students who spent 1 to 3 hours	*SD* Students who spent 1 to 3 hours	*M* Students who spent 4 to 6 hours	*SD* Students who spent 4 to 6 hours	*M* Students who spent 7 or more hours	*SD* Students who spent 7 or more hours
4	1.6933	.54276	1.7597	.56076	1.8558	.35302
6	1.2667	.89493	1.4675	.70636	1.7019	.53752

Research Null Hypothesis RQ 3d

This hypothesis stated that there is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the grade which the student expects to receive in the course . A two-way ANOVA on the summer

2006 data was used to test this hypothesis. In order to run the two-way ANOVA, the data were recoded. The original question asked the students what grade they expected to receive in the course. The choices were (a) A, (b) A-, (c) B+, (d) B, (e) B-, (f) C+, (g) C, (h) D+, (i) D, and (j) F. Due to an imbalance in the responses, the data were recoded so that choices b, c, d, and f were combined into one group (no students who were surveyed selected choices e, g, h, i, or j). This action created two groups of students: those who expected to receive a grade of A in the course and those who did not. The results of the two-way ANOVA showed no interaction between the influence of faculty type and the influence of the grade which the student expects to receive on any of the dependent variables. Thus this hypothesis is retained. However, it is important to point out that there were significant differences in a number of variables when the effects of faculty type and the grade which the student expected to receive were observed separately. First, it was discovered that eight dependent variables showed significant differences in the mean by faculty type only. These were variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .023 level for variable 1, the .022 level for variable 2, the .000 level for variable 10, the .001 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000 level for variable 15. The results are presented in Tables 49 and 50 below.

Table 49

Two-Way ANOVA Results Showing Mean Differences by Faculty Type Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	1.854	2	.927	3.792	.023
2	1.856	2	.928	3.830	.022
10	5.338	2	2.669	11.082	.000
11	2.698	2	1.349	6.955	.001
12	22.859	2	11.429	14.268	.000
13	31.984	2	15.992	15.407	.000
14	34.404	2	17.202	18.722	.000
15	9.544	2	4.772	9.833	.000

Table 50

Means and Standard Deviations for Faculty Type Only

Variable	*M* Full-time faculty	*SD* Full-time faculty	*M* Long-term adjuncts	*SD* Long-term adjuncts	*M* Short-term adjuncts	*SD* Short-term adjuncts
1	1.6437	.59017	1.7944	.47940	1.7477	.45750
2	1.6667	.60361	1.8271	.40306	1.6636	.54848
10	1.7586	.45662	1.8411	.37902	1.5327	.69115
11	1.7816	.41555	1.8318	.37494	1.6168	.57699

Table 50 (continued).

Variable	*M* Full-time faculty	*SD* Full-time faculty	*M* Long-term adjuncts	*SD* Long-term adjuncts	*M* Short-term adjuncts	*SD* Short-term adjuncts
12	1.6437	.57013	.8832	.88832	1.2056	1.09664
13	1.2989	.80860	.5234	.96751	1.0935	1.24030
14	1.6207	.65132	.7009	.91636	1.1215	1.21088
15	1.7931	.40743	1.3458	.75187	1.5140	.75691

Next, it was discovered that eight dependent variables showed significant differences in the mean when the grade which the student expected to receive was the lone independent variable. These were variable 1 (clarity of learning objectives), variable 3 (clarity of grading criteria), variable 4 (instructor's level of preparedness for class), variable 6 (whether the course is challenging enough), variable 8 (whether the instructor generally cares about students), variable 9 (appropriateness of course readings), variable 10 (whether work is returned in a timely, constructive manner), and variable 11 (whether grades reflect a fair evaluation by the instructor). The differences were significant at the .003 level for variable 1, the .003 level for variable 3, the .014 level for variable 4, the .023 level for variable 6, the .004 level for variable 8, the .017 level for variable 9, the .002 level for variable 10, and the .002 level for variable 11. The results are presented in Tables 51 and 52 below.

Table 51

Two-Way ANOVA Results Showing Mean Differences by Grade Which the Student Expects to Receive Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	2.201	1	2.201	9.004	.003
3	3.402	1	3.402	8.974	.003
4	1.557	1	1.557	6.054	.014
6	3.008	1	3.008	5.215	.023
8	1.384	1	1.384	8.552	.004
9	1.468	1	1.468	5.710	.017
10	2.305	1	2.305	9.572	.002
11	1.964	1	1.964	10.124	.002

Table 52

Means and Standard Deviations for Grade Which the Student Expects to Receive Only

Variable	*M* Students expecting to receive an A	*SD* Students expecting to receive an A	*M* Students not expecting to receive an A	*SD* Students not expecting to receive an A
1	1.7915	.45251	1.6238	.61403
3	1.6840	.57835	1.4455	.71380
4	1.7948	.45759	1.6535	.63931

Table 52 (continued).

Variable	*M* Students expecting to receive an A	*SD* Students expecting to receive an A	*M* Students not expecting to receive an A	*SD* Students not expecting to receive an A
6	1.4951	.76428	1.3267	.74979
8	1.8534	.36337	1.7030	.50089
9	1.7492	.49072	1.6040	.54917
10	1.7850	.47764	1.6139	.58259
11	1.8013	.43114	1.6535	.49871

Research Null Hypothesis RQ 3e

This hypothesis stated that there is no interaction between the influence of faculty type on student ratings of instructional quality and the influence of the student's cumulative grade point average. A two-way ANOVA on the summer 2006 data was used to test this hypothesis. In order to run the two-way ANOVA, the data were recoded. The original question asked the students what their cumulative grade point average was to date in the Graduate Education Program. The choices were (a) 3.5-4.0, (b) 3.0-3.49, (c) 2.5-2.99, (d) 2.0-2.49, (e) less than 2.0, and (f) not applicable (taking first course now). Due to an imbalance in the responses, the data were recoded so that choices b and c were combined into one group (no students who were surveyed selected choices d or e). This action created three groups of students: those with a cumulative grade point average between 3.5 and 4.0, those with a cumulative grade point average between 2.5

and 3.49, and those for whom the question was not applicable since they were taking their first course. The results of the two-way ANOVA showed a definitive interaction between the influence of faculty type and the influence of the student's cumulative grade point average on four dependent variables: variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 3 (clarity of grading criteria), and variable 4 (instructor's level of preparedness for class). The interaction of the two independent variables was significant at the .022 level for variable 1, the .029 level for variable 2, the .05 level for variable 3, and the .05 level for variable 4. Thus this hypothesis is rejected. The results are presented in Table 53 below.

Table 53

Two-Way ANOVA Results Showing Interaction Between Faculty Type and Student's Cumulative Grade Point Average

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	2.802	4	.700	2.899	.022
2	2.550	4	.638	2.718	.029
3	3.628	4	.907	2.380	.051
4	2.384	4	.596	2.348	.054

The profile plots for these interaction effects are shown below in Figure 6, Figure 7, Figure 8, and Figure 9. For faculty type, 1 = full-time faculty, 2 = long-term adjuncts, and 3 = short-term adjuncts. On the horizontal axis, 1 = students with a cumulative GPA between 3.5 and 4.0, 2 = students with a cumulative GPA between 2.5 and 3.49, and 3 =

students for whom the question was not applicable because they were taking their first courses in the Graduate Education Program.

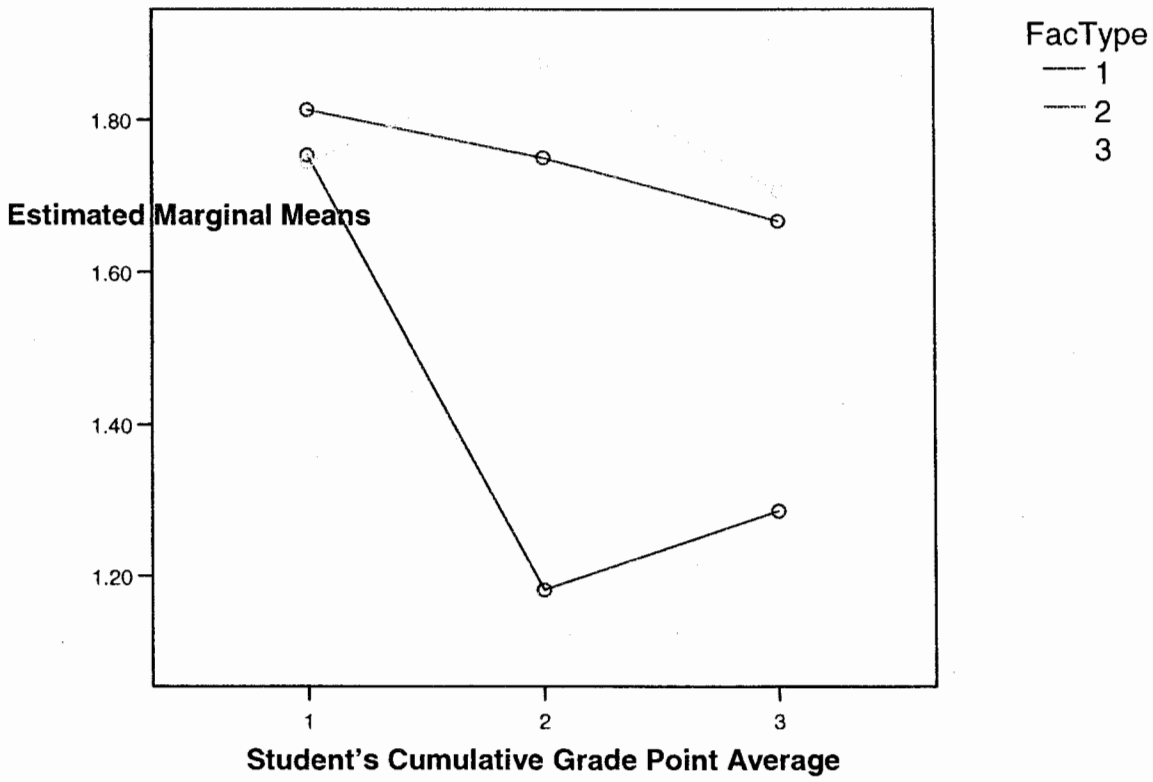

Figure 6. **Estimated marginal means for clarity of learning objectives (interaction between faculty type and student's cumulative grade point average).**

There is an ordinal relationship between the marginal means for full-time faculty and long-term adjuncts with regard to clarity of learning objectives for Survey Question 5. Long-term adjuncts rated higher across the board than full-time faculty for all three groups of students. However, there is a disordinal relationship between short-term adjuncts and the other two groups of faculty. Short-term adjuncts were rated lower than full-time faculty by students with a GPA between 3.5 and 4.0, but higher than full-time faculty for those students in the other two categories. Short-term adjuncts were also rated lower than long-term adjuncts by students with a GPA between 3.5 and 4.0, but students in both other categories rated short-term adjuncts higher than long-term adjuncts.

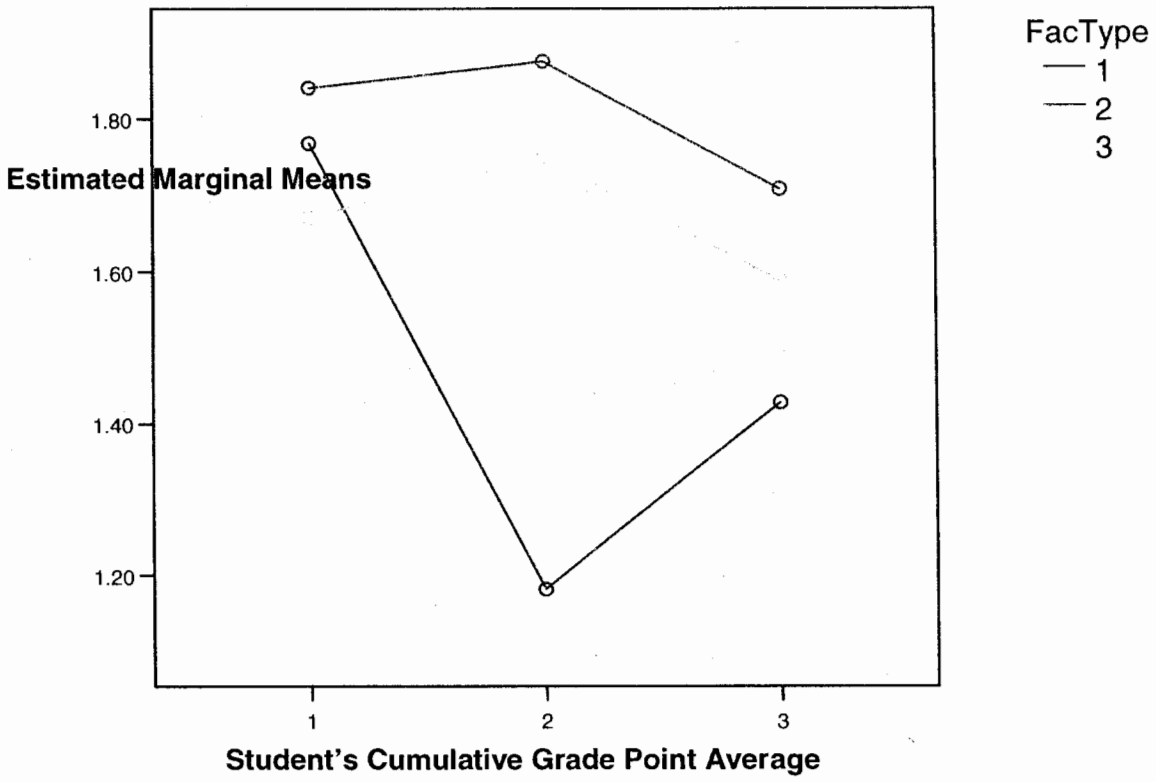

Figure 7. **Estimated marginal means for relating course activities to learning objectives (interaction between faculty type and student's cumulative grade point average).**

With regard to the relation of course activities to learning objectives for Survey Question 5, there are ordinal relationships between the marginal means of long-term adjuncts and marginal means of short-term adjuncts, as well as the marginal means of long-term adjuncts and the marginal means of full-time faculty. Long-term adjuncts consistently ranked higher than both full-time faculty and short-term adjuncts among all three groups of students. There exists a disordinal relationship between the marginal means for full-time faculty and the marginal means for short-term adjuncts. Students with a GPA between 3.5 and 4.0 ranked full-time faculty higher than short-term adjuncts, while students in the other two categories ranked short-term adjuncts higher than full-time faculty.

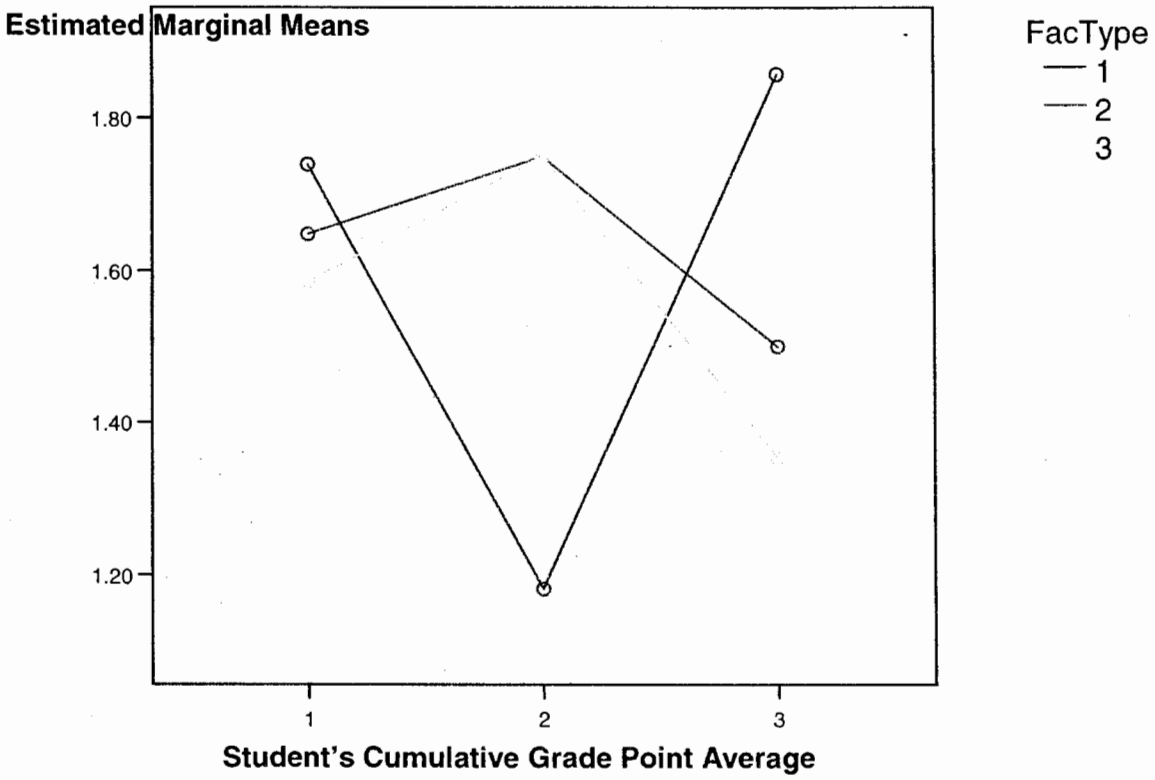

Figure 8. **Estimated marginal means for clarity of grading criteria (interaction between faculty type and student's cumulative grade point average).**

There is a disordinal relationship among the three groups of faculty with regard to clarity of grading criteria for Survey Question 5. Students with a GPA between 3.5 and 4.0 ranked full-time faculty the highest, followed by long-term adjuncts and short-term adjuncts. Students with a GPA between 2.5 and 3.49 ranked long-term adjuncts and short-term adjuncts exactly the same ($M = 1.75$), but both groups of adjuncts were ranked higher than full-time faculty. New students for whom this question was not applicable ranked full-time faculty the highest, followed by long-term adjuncts and short-term adjuncts.

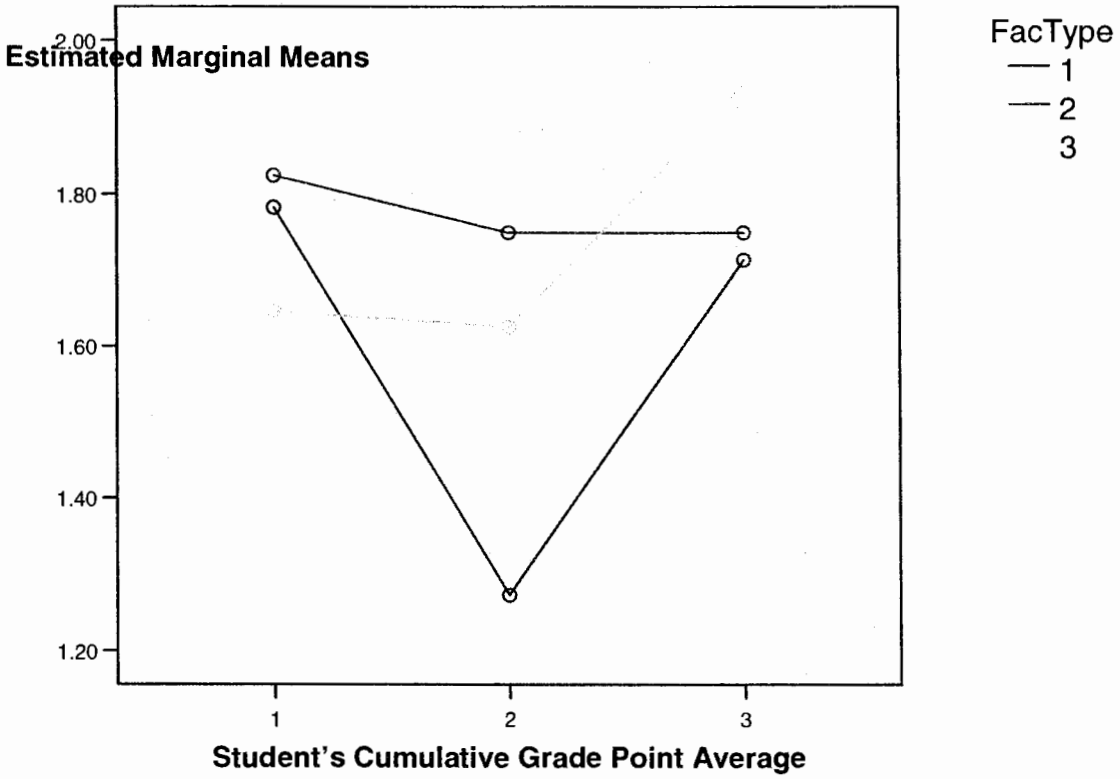

Figure 9. **Estimated marginal means for instructor's level of preparedness for class (interaction between faculty type and student's cumulative grade point average).**

There is an ordinal relationship between long-term adjuncts and full-time faculty with regard to the instructor's level of preparedness for class for Survey Question 5. Students across the board ranked long-term adjuncts higher than full-time faculty. There is a disordinal relationship, however, between short-term adjuncts and the other two groups of faculty. Students with a GPA between 3.5 and 4.0 ranked short-term adjuncts lower than long-term adjuncts and full-time faculty. Students with a GPA between 2.5 and 3.49 ranked long-term adjuncts the highest, followed by short-term adjuncts and then full-time faculty. New students for whom this question was not applicable ranked short-term adjuncts the highest, followed by long-term adjuncts and full-time faculty.

It is also important to point out that there were significant differences in a number of variables when the effects of faculty type and the student's cumulative grade point average were observed separately. First, it was discovered that six dependent variables showed significant differences in the mean by faculty type only. These were variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). The differences were significant at the .001 level for variable 1, the .004 level for variable 2, the .013 level for variable 10, the .013 level for variable 12, the .002 level for variable 13, and the .019 level for variable 14. The results are presented in Tables 54 and 55 below.

Table 54

Two-Way ANOVA Results Showing Mean Differences by Faculty Type Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	3.287	2	1.644	6.804	.001
2	2.600	2	1.300	5.544	.004
10	2.120	2	1.060	4.362	.013
12	7.033	2	3.516	4.376	.013
13	12.742	2	6.371	6.122	.002
14	7.215	2	3.608	4.002	.019

Table 55

Means and Standard Deviations for Faculty Type Only

Variable	*M* Full-time faculty	*SD* Full-time faculty	*M* Long-term adjuncts	*SD* Long-term adjuncts	*M* Short-term adjuncts	*SD* Short-term adjuncts
1	1.6437	.59017	1.7944	.47940	1.7477	.45750
2	1.6667	.60361	1.8271	.40306	1.6636	.54848
10	1.7586	.45662	1.8411	.37902	1.5327	.69115
12	1.6437	.57013	.8832	.88832	1.2056	1.09664
13	1.2989	.80860	.5234	.96751	1.0935	1.24030
14	1.6207	.65132	.7009	.91636	1.1215	1.21088

Next, it was discovered that five dependent variables showed significant differences in the mean when the student's cumulative grade point average was the lone independent variable. These were variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 8 (whether the instructor generally cares about students), and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). The differences were significant at the .015 level for variable 1, the .036 level for variable 2, the .034 level for variable 5, the .006 level for variable 8, and the .031 level for variable 14. The results are presented in Tables 56 and 57.

Table 56

Two-Way ANOVA Results Showing Mean Differences by Student's Cumulative Grade Point Average Only

Variable	Sum of squares	*df*	*MS*	*F*	Sig.
1	2.040	2	1.020	4.223	.015
2	1.566	2	.783	3.338	.036
5	1.094	2	.547	3.414	.034
8	1.658	2	.829	5.155	.006
14	6.321	2	3.161	3.506	.031

Table 57

Means and Standard Deviations for Student's Cumulative Grade Point Average Only

Variable	*M* Students with 3.5-4.0 GPA	*SD* Students with 3.5-4.0 GPA	*M* Students with 2.5-3.49 GPA	*SD* Students with 2.5-3.49 GPA	*M* Students to whom question did not apply	*SD* Students to whom question did not apply
1	1.7838	.47349	1.5556	.57735	1.6250	.60582
2	1.7838	.46709	1.5556	.57735	1.6250	.60582
5	1.8559	.37658	1.6667	.48038	1.6875	.51183
8	1.8438	.37976	1.8148	.39585	1.6250	.53096
14	1.0270	1.03079	1.3333	.67937	.6875	1.05500

Data Analysis

The results of this research study have produced some very interesting findings. In this section, I will focus on each of the statistical tests that were performed and analyze the results yielded by each one.

ANOVA on 2004-05 Data

The ANOVA on the 2004-05 data showed significant differences between full-time and part-time faculty in 3 of the 15 variables that were tested. These variables were variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs),

and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). Full-time faculty rated significantly higher than both long-term adjunct faculty and short-term adjunct faculty on each of these three variables. On all three variables, the differences were significant at the .001 level. Essentially, this means that students rated full-time faculty as significantly better than long-term adjunct faculty and short-term adjunct faculty in the effective use of e-mail, films, videos, DVDs, slides, PowerPoint, transparencies, and /or overheads in their courses.

ANOVA on 2005-06 data

The ANOVA on the 2005-06 data showed significant differences between full-time and part-time faculty in 3 of the 15 variables that were tested. These variables were variable 10 (whether work is returned in a timely, constructive manner), variable 12 (effective use of e-mail), and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). Again, full-time faculty were rated significantly higher than both long-term adjunct faculty and short-term faculty on the effective use of e-mail and the effective use of slides/PowerPoint/transparencies and/or overheads. The differences were significant at the .043 level for effective use of e-mail and the .015 level for the effective use of slides/PowerPoint/transparencies and/or overheads. However, for the first time in this study, the results of the ANOVA showed that long-term adjunct faculty rated significantly higher than both full-time faculty and short-term adjunct faculty on one of the variables. This variable was variable 10 (whether work is returned in a timely, constructive manner). The differences here were significant

at the .023 level. Thus the following conclusions can be drawn based on the 2005-06 data. First, students rated full-time faculty significantly higher than both long-term adjunct faculty and short-term adjunct faculty in the effective use of e-mail, slides, PowerPoint, transparencies, and/or overheads in their courses. Second, students rated long-term adjunct faculty significantly higher than both full-time faculty and short-term adjunct faculty in returning work in a timely, constructive manner.

In addition to the findings analyzed above, the ANOVA on the 2005-06 data also showed significant differences in three variables using the least significant difference (LSD) method in post-hoc comparisons. First, significant differences were discovered between full-time faculty and long-term adjunct faculty in variable 1 (clarity of learning objectives) at the .026 level. The mean score for full-time faculty on clarity of learning objectives was 1.54, while the mean score for long-term adjunct faculty was 1.76. Thus it can be said that students rated long-term adjunct faculty significantly higher than full-time faculty in terms of the clarity of their learning objectives, but long-term adjunct faculty were not rated significantly higher than short-term adjunct faculty.

Second, significant differences were discovered between full-time faculty and long-term adjunct faculty in variable 2 (relation of course activities to learning objectives) at the .031 level. The mean score for full-time faculty on the relation of course activities to learning objectives was 1.55, while the mean score for long-term adjunct faculty was 1.76. Thus it can be said that students rated long-term adjunct faculty significantly higher than full-time faculty in terms of relating course activities to learning objectives, but long-term adjunct faculty were not rated significantly higher than short-term adjunct faculty.

Finally, significant differences were discovered between long-term adjunct faculty and short-term adjunct faculty in variable 4 (level of preparedness for class) at the .035 level. The mean score for long-term adjunct faculty on the level of preparedness for class was 1.81, while the mean score for short-term adjunct faculty was 1.66. Thus it can be said that students rated long-term adjunct faculty significantly higher than short-term adjunct faculty in their level of preparedness for class, but long-term adjunct faculty were not rated significantly higher than full-time faculty.

ANOVA on Overall Data for Both Academic Years

The ANOVA on the overall data for both academic years (2004-05 and 2005-06) showed significant differences between full-time and part-time faculty in 5 of the 15 variables that were tested. These variables were variable 10 (whether work is returned in a timely, constructive manner), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). Overall, full-time faculty were rated significantly higher than both long-term adjunct faculty and short-term adjunct faculty on the effective use of e-mail, films, videos, DVDs, slides, PowerPoint, transparencies and/or overheads, and Blackboard in their courses. The differences were significant at the .000 level for effective use of e-mail, the .001 level for effective use of films/videos/DVDs, the .000 level for effective use of slides/PowerPoint/transparencies and/or overheads, and the .035 level for effective use of Blackboard. However, long-term adjunct faculty were rated significantly higher

than both full-time faculty and short-term adjunct faculty on whether work is returned in a timely, constructive manner. The difference was significant at the .05 level. Thus the following conclusions can be drawn based on the overall data from both academic years (2004-05 and 2005-06). First, students rated full-time faculty significantly higher than both long-term adjunct faculty and short-term adjunct faculty in the effective use of e-mail, films, videos, DVDs, slides, PowerPoint, transparencies and/or overheads, and Blackboard in their courses. Second, students rated long-term adjunct faculty significantly higher than both full-time faculty and short-term adjunct faculty in returning work in a timely, constructive manner.

In addition to the findings analyzed above, the ANOVA on the overall data from both academic years (2004-05 and 2005-06) also showed significant differences in one other variable using the least significant difference (LSD) method in post-hoc comparisons. Significant differences were discovered between long-term adjunct faculty and short-term adjunct faculty in variable 11 (whether grades reflect a fair evaluation by the instructor) at the .024 level. The mean score for long-term adjunct faculty on whether grades reflect a fair evaluation by the instructor was 1.69, while the mean score for short-term adjunct faculty was 1.54. Thus it can be said that students rated long-term adjunct faculty significantly higher than short-term adjunct faculty in terms of whether grades reflect a fair evaluation by the instructor, but long-term adjunct faculty were not rated significantly higher than full-time faculty.

Two-way ANOVA Tests on Aggregate Data

The two-way ANOVA tests on the overall data from both academic years (2004-05 and 2005-06) showed no interaction between the influence of faculty type and the influence of academic year for any of the 15 components of instructional quality. However, significant differences were discovered in certain variables when the effects of faculty type and academic year were observed separately. Specifically, significant differences were discovered in variables 5, 8, and 11 by academic year only, while significant differences were discovered in variables 10, 12, 13, 14, and 15 by faculty type only.

In the two-way ANOVA tests, significant differences were discovered by academic year only in variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 8 (whether the instructor generally cares about students), and variable 11 (whether grades reflect a fair evaluation by the instructor). The differences were significant at the .006 level in variable 5, the .009 level in variable 8, and the .020 level in variable 11. In all three instances, the mean scores for academic year 2005-06 were significantly higher than the mean scores for academic year 2004-05. Thus it can be said that students who took courses during the 2005-06 academic year rated faculty significantly higher on these three variables than the students who took courses during the 2004-05 academic year.

Significant differences were discovered by faculty type only in variable 10 (whether work is returned in a timely, constructive manner), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of

slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .046 level in variable 10, the .000 level in variable 12, the .001 level in variable 13, the .000 level in variable 14, and the .032 level in variable 15. In variable 10, the mean scores for long-term adjunct faculty were significantly higher than the mean scores for both full-time faculty and short-term adjunct faculty. In variables 12, 13, 14, and 15, the mean scores for full-time faculty were significantly higher than the mean scores for both long-term adjunct faculty and short-term adjunct faculty. Thus two conclusions can be drawn based on this data. First, students overall rated long-term adjunct faculty significantly higher than both full-time faculty and short-term adjunct faculty on returning their work in a timely, constructive manner. Second, students overall rated full-time faculty significantly higher than both long-term adjunct faculty and short-term adjunct faculty on the effective use of e-mail, films, videos, DVDs, slides, PowerPoint, transparencies and/or overheads, and Blackboard. These findings correlate with the findings in the one-way ANOVA on the overall data for both academic years (2004-05 and 2005-06).

Two-Way ANOVA Tests on Summer 2006 Data

Seventy-five different two-way ANOVA tests were conducted on the summer 2006 data. The tests examined the interaction between the influence of faculty type and the influence of one of five other independent variables on all 15 components of instructional quality. The five independent variables with which faculty type was tested for interaction were matriculation status, purpose of the student's course (i.e., was it

counting toward their degree foundation, degree concentration, or neither), number of hours per week spent on outside work for the course, grade which the student expected to receive in the course, and cumulative grade point average. The results of the tests for each one of these variables will be analyzed individually.

Faculty Type and Matriculation Status

These tests on the 2006 summer data showed no interaction between the influence of faculty type and the influence of matriculation status for any of the 15 components of instructional quality. However, significant differences were discovered in numerous dependent variables when the effects of faculty type and matriculation status were observed separately. Specifically, significant differences were discovered in variables 2, 10, 11, 12, 13, 14, and 15 by faculty type only and variables 1, 2, 5, 6, 8, and 9 by matriculation status only.

In the two-way ANOVA tests on the summer 2006 data, significant differences were discovered by faculty type only in variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .014 level for variable 2, the .000 level for variable 10, the .001 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000

level for variable 15. In variables 2, 10, and 11, the mean scores for long-term adjunct faculty were significantly higher than the mean scores for full-time faculty and short-term adjuncts. In variables 12, 13, 14, and 15, the mean scores for full-time faculty were significantly higher than the mean scores for long-term and short-term adjunct faculty. Thus two conclusions can be drawn based on this data. First, students who took graduate education courses during the summer of 2006 rated long-term adjunct faculty significantly higher than both full-time faculty and short-term adjunct faculty on relating course activities to learning objectives, returning their work in a timely, constructive manner, and having their grades reflect a fair evaluation by the professor. Second, students who took graduate education courses during the summer of 2006 rated full-time faculty significantly higher than both long-term adjunct faculty and short-term adjunct faculty on the effective use of e-mail, films, videos, DVDs, slides, PowerPoint, transparencies and/or overheads, and Blackboard.

Significant differences were discovered by matriculation status only in variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 6 (whether the course is challenging enough), variable 8 (whether the instructor generally cares about students), and variable 9 (appropriateness of course readings). The differences were significant at the .014 level for variable 1, the .04 level for variable 2, the .05 level for variable 5, the .046 level for variable 6, the .002 level for variable 8, and the .017 level for variable 9. In the case of all six of these dependent variables, matriculated students rated their instructor significantly

higher than non-matriculated students. Thus we can say that students taking graduate education courses during the summer of 2006 were more likely to rate their professor favorably on any of these dependent variables if they were matriculated into the program than if they were non-matriculated.

Faculty Type and Purpose of Student's Course

These tests on the 2006 summer data showed an interaction between the influence of faculty type and the influence of the purpose of the student's course (i.e., whether the student is taking the course toward their degree foundation, degree concentration, or neither) for two dependent variables: variable 1 (clarity of learning objectives) and variable 10 (whether work is returned in a timely, constructive manner). The interaction of the two independent variables was significant at the .012 level for variable 1 and at the .047 level for variable 10. Essentially, this means that the effect of faculty type on student ratings for clarity of learning objectives and whether work is returned in a timely, constructive manner is not the same as the effect of the purpose of the student taking the course. The profile plots for the interaction effects showed a disordinal relationship among the means for variable 1. Students who took the course toward their degree foundation ranked short-term adjuncts the highest, followed by long-term adjuncts and full-time faculty. Students who took the course toward their degree concentration ranked long-term adjuncts the highest, followed by short-term adjuncts and full-time faculty. But students who took the course as an elective (i.e., neither toward their degree foundation nor degree concentration) ranked full-time faculty the highest, followed by short-term adjuncts and long-term adjuncts. For variable 10, there exists an ordinal relationship

between the marginal means for long-term and short-term adjuncts. All three groups of students rated long-term adjuncts consistently higher than short-term adjuncts. However, there is a disordinal relationship between both groups of adjuncts and full-time faculty. Students who took the course toward their degree foundation rated full-time faculty the highest, followed by long-term adjuncts and short-term adjuncts. Students who took the course toward their degree concentration rated long-term adjuncts higher than full-time faculty, who in turn were rated slightly higher than short-term adjuncts. Students who took the course as an elective (i.e., neither toward their degree foundation nor degree concentration) rated full-time faculty slightly higher than long-term adjuncts, while both full-time and long-term adjunct faculty were rated higher than short-term adjuncts.

Significant differences were also discovered by faculty type only in variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .000 level for variable 10, the .005 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000 level for variable 15. In variables 10 and 11, mean scores were higher for long-term adjunct faculty than for full-time and short-term adjunct faculty. In variables 12, 13, 14, and 15, mean scores were higher for full-time faculty than for long-term adjunct and short-term adjunct faculty. Thus again it appears as if students who took courses during the summer of 2006 rated long-term adjuncts significantly higher on returning work in a timely, constructive manner and having grades reflect a fair

evaluation by the professor, while full-time faculty were rated significantly higher on integrating technology into their courses.

Faculty Type and Amount of Time Spent on Homework

These tests on the 2006 summer data showed an interaction between the influence of faculty type and the amount of time spent on outside work for the class for three dependent variables: variable 1 (clarity of learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), and variable 8 (whether the instructor generally cares about students). The interaction of the two independent variables was significant at the .037 level for variable 1, the .027 level for variable 5, and at the .017 level for variable 8. Thus it is clear that the effect of faculty type on the ratings for these three dependent variables is not the same as the effect of the amount of hours per week the student spends on outside work for the course. First, there exists a disordinal relationship among these marginal means with regard to variable 1. Students who spent 1 to 3 hours per week on outside work ranked full-time faculty higher than short-term adjuncts, who in turn were rated higher than long-term adjuncts. Students who spent 4 to 6 hours per week on outside work rated short-term adjuncts the highest, followed by long-term adjuncts and then full-time faculty. Finally, students who spent 7 or more hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and then short-term adjuncts. Second, there exists an ordinal relationship between the marginal means for short-term and long-term adjuncts with regard to variable 5. Students who spent 1 to 3 hours per week on outside work ranked long-term adjuncts slightly higher than short-term adjuncts. Students who spent 4 to 6

hours per week or 7 or more hours per week on outside work also ranked long-term adjuncts higher than short-term adjuncts. However, there is a disordinal relationship between the marginal means for full-time faculty and the marginal means for both long-term and short-term adjuncts. Students who spent 1 to 3 hours per week on outside work ranked full-time faculty the highest among the three groups of faculty, while students who spent 4 to 6 hours per week on outside work ranked full-time faculty the lowest among the three groups. Students who spent 7 or more hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and then short-term adjuncts. Finally, there exists an ordinal relationship between full-time faculty and short-term adjuncts with regard to variable 8. Full-time faculty were rated higher than short-term adjuncts among all three groups of students. However, there is a disordinal relationship between long-term adjuncts and the other two groups of faculty. Those students who spent 1 to 3 hours per week on outside work ranked full-time faculty the highest, followed by short-term adjuncts and then long-term adjuncts. Students who spent 4 to 6 hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and short-term adjuncts. Finally, students who spent 7 or more hours per week on outside work ranked long-term adjuncts the highest, followed by full-time faculty and then short-term adjuncts.

Significant differences were also discovered by faculty type only in variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies

and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .003 level for variable 2, the .000 level for variable 10, the .001 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000 level for variable 15. In variables 2, 10, and 11, the mean scores for long-term adjunct faculty were significantly higher than the mean scores for full-time faculty and short-term adjuncts. In variables 12, 13, 14, and 15, the mean scores for full-time faculty were significantly higher than the mean scores for long-term and short-term adjunct faculty. This mirrors the findings from the two-way ANOVA which used faculty type and matriculation status as the independent variables.

Finally, significant differences were discovered by amount of time spent on homework only for two dependent variables. These were variable 4 (instructor's level of preparedness for class) and variable 6 (whether the course is challenging enough). The differences were significant at the .047 level for variable 4 and the .000 level for variable 6. In both cases, the more hours the student spent on outside work for the class, the higher they rated their professor on each of these variables. Consider that students who claimed to spend 1 to 3 hours per week on homework assigned their professor an average score of 1.69 for level of preparedness and 1.26 for whether the course was challenging enough. Students who claimed to spend 4 to 6 hours per week on homework assigned their professor an average score of 1.75 for level of preparedness and 1.46 for whether the course was challenging enough. But those who claimed to spend 7 hours or more per week on homework assigned their professors an average score of 1.85 for level of preparedness and 1.70 for whether the course was challenging enough, easily the highest out of the three groups.

Faculty Type and Student's Expected Grade

These tests on the 2006 summer data showed no interaction between the influence of faculty type and the influence of the student's expected grade for any of the 15 components of instructional quality. However, significant differences were discovered in numerous dependent variables when the effects of faculty type and the student's expected grade were observed separately. Specifically, significant differences were discovered in variables 1, 2, 10, 11, 12, 13, 14, and 15 by faculty type only and variables 1, 3, 4, 6, 8, 9, 10, and 11 by the student's expected grade only.

In the two-way ANOVA tests on the summer 2006 data, significant differences were discovered by faculty type only in variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 11 (whether grades reflect a fair evaluation by the instructor), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .023 level for variable 1, the .022 level for variable 2, the .000 level for variable 10, the .001 level for variable 11, the .000 level for variable 12, the .000 level for variable 13, the .000 level for variable 14, and the .000 level for variable 15. The findings here mirror those from the previous two-way ANOVA tests using faculty type/matriculation status and faculty type/amount of time spent on homework as the independent variables in that long-term adjuncts received the highest ratings on dependent variables 2, 10, and 11 while full-time faculty received the highest ratings on dependent variables 12, 13, 14, and 15. What sets this two-way ANOVA test apart from

the others is that significant differences were also discovered in dependent variable 1 (clarity of learning objectives) for faculty type only. A closer examination using the post-hoc comparisons revealed that long-term adjunct faculty were once again rated significantly higher than full-time faculty and short-term adjunct faculty.

Significant differences were discovered by student's expected grade only in variable 1 (clarity of learning objectives), variable 3 (clarity of grading criteria), variable 4 (instructor's level of preparedness for class), variable 6 (whether the course is challenging enough), variable 8 (whether the instructor generally cares about students), variable 9 (appropriateness of course readings), variable 10 (whether work is returned in a timely, constructive manner), and variable 11 (whether grades reflect a fair evaluation by the instructor). The differences were significant at the .003 level for variable 1, the .003 level for variable 3, the .014 level for variable 4, the .023 level for variable 6, the .004 level for variable 8, the .017 level for variable 9, the .002 level for variable 10, and the .002 level for variable 11. On all eight of these dependent variables, students expecting to receive a grade of A in the course rated their professor significantly higher than those students who did not expect to receive a grade of A in the course. Thus we can say that students taking graduate education courses during the summer of 2006 were more likely to rate their professor favorably on any of these eight dependent variables if they were expecting to receive a grade of A in the course.

Faculty Type and Cumulative Grade Point Average

These tests on the 2006 summer data showed an interaction between the influence of faculty type and the influence of cumulative grade point average for four dependent

variables: variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 3 (clarity of grading criteria), and variable 4 (instructor's level of preparedness for class). The interaction of the two independent variables was significant at the .022 level for variable 1, the .029 level for variable 2, the .05 level for variable 3, and the .05 level for variable 4. Essentially, this means that the effect of faculty type on student ratings for these four dependent variables is not the same as the effect of the student's cumulative grade point average. First, there is an ordinal relationship between the marginal means for full-time faculty and long-term adjuncts with regard to variable 1. Long-term adjuncts rated higher across the board than full-time faculty for all three groups of students. However, there is a disordinal relationship between short-term adjuncts and the other two groups of faculty. Short-term adjuncts were rated lower than full-time faculty by students with a GPA between 3.5 and 4.0, but higher than full-time faculty for those students in the other two categories. Short-term adjuncts were also rated lower than long-term adjuncts by students with a GPA between 3.5 and 4.0, but students in both other categories rated short-term adjuncts higher than long-term adjuncts. Second, with regard to variable 2, there are ordinal relationships between the marginal means of long-term adjuncts and marginal means of short-term adjuncts, as well as the marginal means of long-term adjuncts and the marginal means of full-time faculty. Long-term adjuncts consistently ranked higher than both full-time faculty and short-term adjuncts among all three groups of students. There exists a disordinal relationship between the marginal means for full-time faculty and the marginal means for short-term adjuncts. Students with a GPA between 3.5 and 4.0 ranked full-time faculty higher than short-term adjuncts, while students in the other two categories ranked

short-term adjuncts higher than full-time faculty. Next, there is a disordinal relationship among the three groups of faculty with regard to variable 3. Students with a GPA between 3.5 and 4.0 ranked full-time faculty the highest, followed by long-term adjuncts and short-term adjuncts. Students with a GPA between 2.5 and 3.49 ranked long-term adjuncts and short-term adjuncts exactly the same ($M = 1.75$), but both groups of adjuncts were ranked higher than full-time faculty. New students for whom this question was not applicable ranked full-time faculty the highest, followed by long-term adjuncts and short-term adjuncts. Finally, there is an ordinal relationship between long-term adjuncts and full-time faculty with regard to variable 4. Students across the board ranked long-term adjuncts higher than full-time faculty. There is a disordinal relationship however, between short-term adjuncts and the other two groups of faculty. Students with a GPA between 3.5 and 4.0 ranked short-term adjuncts lower than long-term adjuncts and full-time faculty. Students with a GPA between 2.5 and 3.49 ranked long-term adjuncts the highest, followed by short-term adjuncts and then full-time faculty. New students for whom this question was not applicable ranked short-term adjuncts the highest, followed by long-term adjuncts and full-time faculty.

Significant differences were also discovered by faculty type only in variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 10 (whether work is returned in a timely, constructive manner), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). The differences were significant at the .001 level for variable 1, the .004 level for variable 2, the .013 level for variable 10, the .013 level for variable 12, the .002 level for variable 13,

and the .019 level for variable 14. As was the case with other two-way ANOVA tests conducted on the data for summer 2006, long-term adjunct faculty received the highest ratings for dependent variables 1, 2, and 10, while full-time faculty received the highest ratings for dependent variables 12, 13, and 14.

Finally, significant differences were discovered by cumulative grade point average only in variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 8 (whether the instructor generally cares about students), and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). The differences were significant at the .015 level for variable 1, the .036 level for variable 2, the .034 level for variable 5, the .006 level for variable 8, and the .031 level for variable 14. These research findings were not as consistent or predictable as those findings associated with other independent variables, such as matriculation status, amount of time per week spent on homework, or the grade which the student expected to receive in the course. For variables 1, 2 and 5, students with a cumulative grade point average between 3.5 and 4.0 rated faculty significantly higher than either students with a cumulative grade point average between 2.5 and 3.49 or new students with no prior grade point average. For variable 8, both groups of students with prior grade point averages, either 3.5 to 4.0 or 2.5 to 3.49, rated faculty significantly higher than new students with no prior grade point average. For variable 14, students with a cumulative grade point average between 2.5 and 3.49 actually rated faculty significantly higher than both students with a cumulative grade point average between 3.5 and 4.0 and new students with no prior grade point average.

Summary

The purpose of this chapter was to review all of the research null hypotheses for this study and present the findings associated with each one. The findings determined whether each hypothesis was retained or rejected. This chapter also provided some data analysis based on the research findings. The next chapter will draw final conclusions based on the research and provide some recommendations for administrative policy and further research on this topic.

Chapter Five

Conclusions and Recommendations for Policy and Research

Introduction

In this chapter, I will draw conclusions based on the results of the statistical tests and data analysis presented in chapter 4. I will also provide some personal recommendations for sound administrative policy and further research based on the findings of this study.

Conclusions

The first part of this study aimed to discover if there were any significant differences in instructional quality as measured by students between full-time and part-time faculty teaching in a graduate education program. Three different statistical tests were performed on data that was collected over a 2-year period. The tests performed were a one-way ANOVA on data collected during the 2004-05 academic year, a one-way ANOVA on data collected during the 2005-06 academic year, and a one-way ANOVA on the aggregate data from both academic years (2004-05 and 2005-06). The results of these tests yielded some interesting findings, all of which were presented in chapter 4. I believe that there are a number of conclusions that can be drawn based on those research findings.

The first conclusion that can be drawn (and arguably the most solid, apparent one) is that full-time faculty consistently rate higher than both long-term adjunct faculty and short-term adjunct faculty on integrating technology into the classroom. This reinforces

literature from various scholars who have argued that instructional quality suffers when programs rely more heavily on adjunct faculty than full-time faculty (Jackson, 1986; Klein & Weisman, 1996; Holden, 1997; Hickman, 1998; Louziotis, 2000; Schuetz, 2002; Schuster, 2003; Townsend, 2003; Nutting, 2003; Thompson, 2003; Benjamin, 2003; Fischer, 2005). It also validates the findings by West and Wollert (2000), who discovered that full-time faculty were rated significantly higher than adjuncts in a graduate education program at East Tennessee State University. In the one-way ANOVA on the 2004-05 data, full-time faculty were rated significantly higher than part-time faculty on the effective use of e-mail, the effective use of films/videos/DVDs, and the effective use of slides/PowerPoint/transparencies and/or overheads. In the one-way ANOVA on the 2005-06 data, full-time faculty were rated significantly higher than part-time faculty on the effective use of e-mail and the effective use of slides/PowerPoint/transparencies and/or overheads. In the one-way ANOVA on the aggregate data from both academic years, full-time faculty were rated significantly higher than part-time faculty on the effective use of e-mail, the effective use of films/videos/DVDs, the effective use of slides/PowerPoint/transparencies and/or overheads, and the effective use of Blackboard. Thus it is quite apparent that students in the Graduate Education Program during these 2 years viewed full-time faculty as being much more adept than part-time faculty at integrating technology into the classroom.

Another conclusion that can be drawn from the findings of this first part of the study is that, apart from technology, long-term adjunct faculty rate very favorably with full-time faculty. This finding reinforces literature from various scholars who have

argued that instructional quality does not suffer when programs rely more on adjunct faculty (Lyons, 1999; Fulton, 2000; Carroll, 2003; Wallin, 2004; Illia & Rubin, 2004; Fagan-Wilen, Springer, Ambrosino, & White, 2006). It also validates the research of Fisher and Edmonson (2003), who state that quality will not suffer as long as adjuncts are utilized properly. Not only did full-time faculty not rate significantly higher than long-term adjuncts on any other components of instructional quality, but there were some instances where long-term adjuncts were actually rated significantly higher than full-time faculty. This was especially the case in analyzing the data from the 2005-06 academic year. The one-way ANOVA on the 2005-06 data showed that long-term adjunct faculty were rated significantly higher than full-time faculty on three different components of instructional quality: clarity of learning objectives, relation of course activities to learning objectives, and returning students' work in a timely, constructive manner. In addition to this, long-term adjunct faculty rated significantly higher than short-term adjunct faculty on the level of preparedness for class, while full-time faculty did not rate significantly higher than short-term adjunct faculty on this variable. Finally, the one-way ANOVA on the aggregate data from both academic years indicated that long-term adjunct faculty rated significantly higher than full-time faculty on returning students' work in a timely constructive manner. It also showed that long-term adjunct faculty rated significantly higher than short-term adjunct faculty on whether grades reflect a fair evaluation by the instructor. Concerning variables 1 to 11, there was not one instance where either full-time faculty or short-term adjunct faculty rated significantly higher than long-term adjunct faculty.

The final conclusion that I would draw from this first part of the research study is that short-term adjunct faculty do not rate favorably overall with full-time faculty or long-term adjunct faculty. There was not one instance in any of the three one-way ANOVA tests where short-term adjunct faculty rated significantly higher than either full-time faculty or long-term adjunct faculty on any of the 15 components of instructional quality. This finding again serves to reinforce the conclusions of various scholars that instructional quality suffers when academic programs rely more heavily on adjunct faculty (Jackson, 1986; Klein & Weisman, 1996; Holden, 1997; Hickman, 1998; Louziotis, 2000; Schuetz, 2002; Schuster, 2003; Townsend, 2003; Nutting, 2003; Thompson, 2003; Benjamin, 2003; Fischer, 2005). It may also validate the claims of various scholars that proper preparation and orientation to the institution are vital if adjunct faculty are going to be successful (Santovec, 2004; Allen, 2006; Fagan-Wilen, Springer, Ambrosino, & White, 2006); for there were a number of instances where either full-time faculty or long-term adjunct faculty rated significantly higher than short-term adjunct faculty. As previously pointed out, full-time faculty consistently rated significantly higher than short-term adjunct faculty on integrating technology into the classroom. Also, long-term adjunct faculty rated significantly higher than short-term adjunct faculty on variables such as the level of preparedness for class (ANOVA on 2005-06 data) and whether grades reflect a fair evaluation by the instructor (ANOVA on aggregate data from both academic years).

The second research question asked if there was an interaction between the influence of faculty type and the influence of academic year on faculty ratings for any of

the 15 dependent variables examined in this study. While no interaction was found for any of the variables, the two-way ANOVA test used to decipher this fact did yield two other conclusions. First, it verified the findings of the one-way ANOVA tests in that it found significant differences in five variables by faculty type only. These were variable 10 (whether work is returned in a timely, constructive manner), variable 12 (effective use of e-mail), variable 13 (effective use of films/videos/DVDs), variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads), and variable 15 (effective use of Blackboard). The differences were significant at the .046 level for variable 10, the .000 level for variable 12, the .001 level for variable 13, the .000 level for variable 14, and the .032 level for variable 15. Just as with the one-way ANOVA tests, long-term adjunct faculty were rated the highest on variable 10, while full-time faculty were rated the highest on variables 12, 13, 14, and 15. Again, this coincided with the findings of the one-way ANOVA tests and served to reinforce the literature which proposes that instructional quality will vary by faculty type (Jackson, 1986; Klein & Weisman, 1996; Holden, 1997; Hickman, 1998; Louziotis, 2000; Schuetz, 2002; Schuster, 2003).

Another interesting conclusion which resulted from the two-way ANOVA test is that the faculty performed better overall in the eyes of the students during the 2005-06 academic year than the 2004-05 academic year. The two-way ANOVA showed that scores on three variables were significantly higher during 2005-06 than they were in 2004-05. These variables were variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 8 (whether the instructor generally cares about students), and variable 11 (whether grades reflect a fair evaluation by the instructor). There was not one component of instructional quality for

which the overall faculty rating was significantly higher in academic year 2004-05 than in academic year 2005-06. But since there were no significant differences between the 2 academic years on 12 other variables, one could argue that this conclusion verifies the findings of Hobson and Talbot (2001), who stated that faculty course evaluations demonstrated a generally accepted degree of consistency and were stable over time.

The last research question asked whether there was an interaction between the influence of faculty type and the influence of various student demographic variables on faculty ratings for any of the 15 dependent variables examined in this study. A number of two-way ANOVA tests were conducted on the summer 2006 data to test this hypothesis, and the results showed that there was an interaction between the influence of faculty type and the influence of the purpose for which the student was taking the course, the influence of the amount of time spent on outside work for the course, and the influence of cumulative grade point average for some of the dependent variables. This finding coincides with the research of Rice, Stewart, and Hujber (2000), who found that relationships exist between student evaluations and learning, achievement, and instructor attributes. The results of the two-way ANOVA showed an interaction between the influence of faculty type and the influence of the purpose for which the student was taking the course on two dependent variables: variable 1 (clarity of learning objectives) and variable 10 (whether work is returned in a timely, constructive manner). The interaction of the two independent variables was significant at the .012 level for variable 1 and at the .047 level for variable 10. The results of the two-way ANOVA also showed a definitive interaction between the influence of faculty type and the influence of the number of hours spent per week on outside work for the course on three dependent

variables: variable 1 (clarity of learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), and variable 8 (whether the instructor generally cares about students). The interaction of the two independent variables was significant at the .037 level for variable 1, the .027 level for variable 5, and at the .017 level for variable 8. Finally, the results of the two-way ANOVA showed a definitive interaction between the influence of faculty type and the influence of the student's cumulative grade point average on four dependent variables: variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 3 (clarity of grading criteria), and variable 4 (instructor's level of preparedness for class). The interaction of the two independent variables was significant at the .022 level for variable 1, the .029 level for variable 2, the .05 level for variable 3, and the .05 level for variable 4. The conclusion that can be drawn is that the effect of faculty type on each of these dependent variables is not the same as the effect of the other independent variables. However, numerous other conclusions can be drawn based on analysis of the profile plots for each of the interaction effects. First, it was determined that the more hours per week a student spent on outside work for the course, the more likely it was for the student to assign a long-term adjunct faculty member a favorable rating. For clarity of learning objectives, the mean score assigned by students spending 1 to 3 hours per week on outside work was 1.7037, while the means for the other two groups were 1.7821 (students spending 4 to 6 hours per week on outside work) and 1.9455 (students spending 7 or more hours per week on outside work). For the instructor's ability to create a learning environment in which diverse points of view are respected, the mean score assigned by students spending 1 to 3 hours on outside work

was 1.7778. The other means were 1.8846 (students spending 4 to 6 hours per week) and 1.9091 (students spending 7 or more hours per week). Finally, for whether the instructor generally cares about students, the mean score assigned by those who spent 1 to 3 hours per week on outside work for the course was 1.6543. The other means were 1.8333 (students spending 4 to 6 hours per week) and 1.9636 (students spending 7 or more hours per week).

Second, it can be said that the hours per week spent on outside work for the course did not affect student ratings of full-time faculty the way in which it affected student ratings for long-term adjuncts. For full-time faculty, the group who rated them the lowest was those students who spent 4 to 6 hours per week on outside work for the course. For clarity of learning objectives, the mean score assigned to full-timers by students spending 4 to 6 hours per week on outside work was 1.5135. The other means were 1.76 (students who spent 1 to 3 hours on outside work) and 1.72 (students who spent 7 or more hours per week on outside work). For the instructor's ability to create a learning environment in which diverse points of view are respected, the mean score assigned by students spending 4 to 6 hours on outside work for the course was 1.6486. The other means were 1.88 (students spending 1 to 3 hours per week) and 1.88 (students spending 7 or more hours per week). Finally, for whether the instructor generally cares about students, the mean score assigned by those who spent 4 to 6 hours per week on outside work for the course was 1.8108. The other means were 1.92 (students spending 1 to 3 hours per week) and 1.92 (students spending 7 or more hours per week).

The final conclusion that can be drawn from the significant interaction effects in this portion of the study is that the lower a student's overall GPA, the less likely that

student is to assign a favorable rating to a full-time faculty member. Students with a cumulative GPA between 3.5 and 4.0 ranked full-time faculty significantly higher on variables such as clarity of learning objectives, relation of course activities to learning objectives, clarity of grading criteria, and the instructor's level of preparedness for class than those students with a GPA between 2.5 and 3.49. Please refer to Table 58 for all of the mean scores and standard deviations.

Table 58

Means and Standard Deviations for Significant Interaction Effects (Faculty Type and Student's Cumulative Grade Point Average)

Variable	*M* (students with 3.5-4.0 GPA)	*M* (students with 2.5-3.49 GPA)	*SD* (students with 3.5-4.0 GPA)	*SD* (students with 2.5-3.49 GPA)
1	1.7536	1.1818	.46671	.60302
2	1.7681	1.1818	.48945	.60302
3	1.7391	1.1818	.50446	.40452
4	1.7826	1.2727	.51075	.64667

The two-way ANOVA tests on the summer 2006 data yielded some other interesting conclusions. First, many significant differences were discovered by faculty type only. When testing for an interaction between the influence of faculty type and the influence of all of the other five independent variables, significant differences were discovered by faculty type only in four dependent variables: variable 10 (whether work is

returned in a timely, constructive manner), variable 12 (effective use of e-mail), variable 13 (effective use of films, videos, DVDs), and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). When testing for an interaction between the influence of faculty type and the influence of four of the five independent variables, significant differences were discovered in variable 2 (relation of course activities to learning objectives), variable 11 (whether grades reflect a fair evaluation by the instructor), and variable 15 (effective use of Blackboard). Finally, when testing for an interaction between the influence of faculty type and two of the five independent variables, significant differences were discovered in variable 1 (clarity of learning objectives). Once again, these findings reinforce the previous literature which discovered differences in instructional quality by faculty type (Jackson, 1986; Klein & Weisman, 1996; Holden, 1997; Hickman, 1998; Louziotis, 2000; Schuetz, 2002; Schuster, 2003). The level of significance for each of the dependent variables is illustrated in Table 59.

Table 59

Significant Differences by Faculty Type Only in Two-Way ANOVA Tests (Summer 2006)

Variable	Matriculation status	Purpose for which student is taking the course	Amount of time spent on homework	Grade which the student expects to receive	Student's cumulative grade point average
1	Not significant	Not significant	Not significant	.023	.001
2	.014	Not significant	.003	.022	.004
10	.000	.000	.000	.000	.013
11	.001	.005	.001	.001	Not significant
12	.000	.000	.000	.000	.013
13	.000	.000	.000	.000	.002
14	.000	.000	.000	.000	.019
15	.000	.000	.000	.000	Not significant

In every instance illustrated in the table, long-term adjunct faculty rated highest on variables 1, 2, 10, and 11 while full-time faculty rated highest on variables 12, 13, 14, and

15. These findings coincide with the findings of the previous ANOVA tests, and merely serve to reinforce the conclusions drawn on that data already.

Finally, in what was arguably the most interesting finding of the two-way ANOVA tests on the summer 2006 data, a number of significant differences were discovered when examining the effect of the student demographic variables only (i.e., apart from faculty type). First, significant differences were discovered between matriculated and non-matriculated students in variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 6 (whether the course is challenging enough), variable 8 (whether the instructor generally cares about students), and variable 9 (appropriateness of course readings). The differences were significant at the .014 level for variable 1, the .04 level for variable 2, the .05 level for variable 5, the .046 level for variable 6, the .002 level for variable 8, and the .017 level for variable 9. In all six of these variables, matriculated students rated faculty significantly higher than non-matriculated students. Thus we can conclude that students who had matriculated (and thus taken more credits) were more likely to rate faculty higher on these six dependent variables than students who did not yet matriculate.

Second, significant differences were discovered among students depending on how much time they spent per week on outside work for the course. These were found in variable 4 (instructor's level of preparedness for class) and variable 6 (whether the course is challenging enough). The differences were significant at the .047 level for variable 4 and the .000 level for variable 6. What makes this so interesting is that the more hours per week a student spent on outside work for the course, the higher they rated their professor

on each of these dependent variables. This finding verifies the research of Centra (2003), whose study showed that faculty cannot improve their course evaluations by giving less work. But it takes things one step further by showing that those students who do more work outside of class actually rate their instructor higher than those who do not spend as much time on outside work for the course. See the mean scores in Table 60. Remember that students rate faculty on a scale of -2 to 2, with -2 being the worst possible rating and 2 being the highest possible rating.

Table 60

Mean Scores for Instructor's Level of Preparedness and Whether Course is Challenging Enough Based on Number of Hours the Student Spends Per Week on Homework

Variable	*M* Students who spend 1 to 3 hours per week on homework	*M* Students who spend 4 to 6 hours per week on homework	*M* Students who Spend 7 or more hours per week on homework
4	1.693	1.759	1.855
6	1.266	1.467	1.701

Table 60 clearly shows that the more hours per week that a student spends on outside work for a course, the higher they tend to rate the professor on the level of preparedness for teaching the course and whether the course has been made challenging enough.

Third, significant differences were discovered between students who expected to receive a grade of A in the course and those who did not expect to receive a grade of A in the course for eight dependent variables. Those variables were variable 1 (clarity of learning objectives), variable 3 (clarity of grading criteria), variable 4 (instructor's level of preparedness for class), variable 6 (whether the course is challenging enough), variable 8 (whether the instructor generally cares about students), variable 9 (appropriateness of course readings), variable 10 (whether work is returned in a timely, constructive manner), and variable 11 (whether grades reflect a fair evaluation by the instructor). The differences were significant at the .003 level for variable 1, the .003 level for variable 3, the .014 level for variable 4, the .023 level for variable 6, the .004 level for variable 8, the .017 level for variable 9, the .002 level for variable 10, and the .002 level for variable 11. The findings here were amazingly consistent in that for all eight variables, students who expected to receive a grade of A in the course rated their professor significantly higher than those students who did not expect to receive a grade of A. Thus we can conclude that students who expected to receive a grade of A were far more likely to rate their professor favorably on these eight components of instructional quality than their classmates who did not expect to receive a grade of A. Unlike the previous finding, this one directly contradicts the research of Centra (2003), whose study showed that faculty will not necessarily receive better evaluations if they assign higher grades.

Finally, significant differences were discovered among students using cumulative grade point average as the lone independent variable. Remember that there were three groups for this independent variable: students with a cumulative grade point average between 3.5 and 4.0, students with a cumulative grade point average between 2.5 and

3.49, and students who were taking their first course and thus had no prior grade point average. In all, it was discovered that five dependent variables showed significant differences in the mean when the student's cumulative grade point average was the lone independent variable. These were variable 1 (clarity of learning objectives), variable 2 (relation of course activities to learning objectives), variable 5 (instructor's ability to create a learning environment in which diverse points of view are respected), variable 8 (whether the instructor generally cares about students), and variable 14 (effective use of slides/PowerPoint/transparencies and/or overheads). The differences were significant at the .015 level for variable 1, the .036 level for variable 2, the .034 level for variable 5, the .006 level for variable 8, and the .031 level for variable 14. However, these findings were not as consistent as the findings for the previous three independent variables. First, for variables 1, 2 and 5, students with a cumulative grade point average between 3.5 and 4.0 rated faculty significantly higher than either students with a cumulative grade point average between 2.5 and 3.49 or new students with no prior grade point average. Next, for variable 8, both groups of students with prior grade point averages, either 3.5 to 4.0 or 2.5 to 3.49, rated faculty significantly higher than new students with no prior grade point average. Finally, for variable 14, students with a cumulative grade point average between 2.5 and 3.49 actually rated faculty significantly higher than both students with a cumulative grade point average between 3.5 and 4.0 and new students with no prior grade point average. Thus we cannot definitively conclude that students are more likely to rate faculty more or less favorably based on their cumulative grade point average. However, it is clear that some relationship exists between student achievement and faculty course ratings, as seen in the research of Rice, Stewart, and Hujber (2000).

Recommendations for Policy and Research

Based on the conclusions drawn in this final chapter of the dissertation, there are numerous recommendations that can be made regarding administrative policy and further research in this area. With regard to administrative policy, there are at least three recommendations that can be made. First, I would recommend that far more resources be allocated toward professional development for adjunct faculty in the area of technology. The results of the statistical tests in this study showed beyond any shadow of a doubt that students perceive adjunct faculty as being inferior to full-time faculty when it comes to integrating technology into the classroom. I believe that a major reason for this might be that workshops offered by the information technology department on such topics as using Microsoft Outlook, Microsoft PowerPoint, "smart" classrooms, and Blackboard are often given during the day and geared toward full-time faculty. Adjuncts who work full-time jobs outside of their teaching responsibilities may not have the same opportunities as full-time faculty to attend these workshops. Thus I would recommend that the college subsidize more workshops on technology and offer those workshops at times when adjuncts could attend, such as in the evening or on a Saturday.

A second recommendation that I would make regarding administrative policy is to schedule workshops where long-term adjunct faculty could share their ideas on topics such as creating learning objectives and planning course activities to meet those objectives. The statistical tests showed that long-term adjunct faculty rate very favorably with full-time faculty on all components of instructional quality except those associated with technology. They even rated more highly than full-time faculty on variables such as clarity of learning objectives, relating course activities to learning objectives, and

returning students' work in a timely, constructive manner. Thus it could well be beneficial to schedule workshops (or perhaps seminars might even be a better word) where long-term adjunct faculty could share their teaching strategies with both full-time faculty and short-term adjunct faculty. It seems as though long-term adjunct faculty have a great deal to offer in this respect, and it certainly could not hurt for the other faculty in the department to hear what they have to say. However, I would not go any further than this, given the study's limitations. A dean or program director might be tempted to interpret the research as indicating that full-time faculty lines should be cut in favor of hiring long-term adjunct faculty with at least 5 years experience. But it bears repeating that many of the long-term adjuncts in this study have 20+ years teaching experience in higher education, in addition to their many years of practical experience in the field of education. So while it is clear that long-term adjuncts have a lot to offer to both their students and their fellow faculty members, in no way should the results of this research study be used to justify replacing full-time faculty members with long-term adjuncts.

A final recommendation that I would make regarding administrative policy is to construct a formal orientation program for newly hired adjunct faculty. I concede that it is not surprising at all that short-term adjunct faculty did not rate significantly higher than either full-time faculty or long-term adjunct faculty on any of the variables in any statistical test performed in this study. This is especially true in light of the study's limitations, namely the wealth of experience among the group of long-term adjuncts. But I wonder how much of that might be attributed to the lack of a formal orientation program for newly hired adjunct faculty. In my experience, it is not uncommon for new adjunct faculty to be hired to teach a course at the last minute, sometimes just within a

couple of weeks of when the course is scheduled to begin. They rush to get ready for it, quickly getting their hands on a textbook for the course and beginning to prepare their syllabus and first few lessons. When they do not perform well (i.e., when the students do not rate them highly on the faculty course evaluations), is it really because they lack what it takes to be a quality instructor? Or is it because everything was done at the last minute, and the newly hired adjunct faculty member did not have sufficient time to prepare and get acclimated to their new role? It is certainly understandable that sometimes it may be necessary to hire someone as an adjunct at the last minute, especially if the faculty member originally slated to teach the course had to back out because of health issues or some other personal reason. But I believe that this should be avoided whenever possible, and that newly hired adjuncts should be required to undergo some type of formal orientation program. The program should cover some (if not all) of the following topics:

1. Preparing a course syllabus that meets department guidelines
2. The grading system at the college
3. Absence policy for students
4. Using your college e-mail account
5. Using "smart" classrooms
6. Using Blackboard
7. Registrar/Bursar policy regarding both faculty and students
8. Accessing attendance rosters and submitting grades on-line

In my experience, many newly hired adjunct faculty learn these policies and/or procedures "on the fly," making the transition to college teaching more difficult than it

should be and far more difficult than it has to be. This, in turn, can have a negative impact on the students they teach who may become discouraged or disinterested in the course. New students in the program who are taking their first course at the college may even drop out of the program due to such a negative initial experience. So in summary, the three recommendations that I would make regarding administrative policy based on the findings of this study are (a) allocating more resources toward professional development for adjunct faculty in terms of integrating technology into the classroom, (b) schedule workshops/seminars where long-term adjunct faculty could share their teaching strategies with other faculty in the department, and (c) developing and implementing a formal orientation program for newly hired adjunct faculty.

In addition to my recommendations on administrative policy, I would also make six recommendations for further research in this area. First, I consider the significant differences between full-time and part-time faculty in the ratings on the use of technology in the classroom to be the major finding of this study. Thus I would recommend that another study be done focusing on this specific topic. One idea might be for a researcher to check the ratings on the use of technology in the classroom between full-time and part-time faculty in an academic program for significant differences. Then, if significant differences are present (as they were in my study), the researcher could suggest implementing a professional development program to train part-time faculty on integrating technology into their classes. If the suggestion is acted upon, more research could be done after the program is implemented. Once another semester begins, faculty ratings on the use of technology can again be checked to see if the professional

development program was successful in narrowing the gap between full-time and part-time faculty.

A second recommendation that I would make for further research is taking a closer look at the differences in instructional quality between full-time and long-term adjunct faculty. In my literature review for this study, I reviewed many scholarly articles by authors who set forth numerous arguments as to why full-time faculty put forth a better quality product overall in the classroom than part-time faculty do. While the results of this study seem to indicate this to be true regarding the use of technology in the classroom, it does not seem to be the case with the other 11 components of instructional quality that were measured. In fact, long-term adjunct faculty rated significantly higher than full-time faculty on some of these variables in a few of the statistical tests that were performed. Thus I believe that it would be well worth it for another researcher to more closely examine the differences in instructional quality between full-time faculty and long-term adjunct faculty. It would be especially helpful if the researcher could conduct this study without the limitation of having a majority of long-term adjunct faculty with 20+ years experience (as was the case with this study). If more results reflecting my findings are discovered, then one could begin to build a strong argument that part-time faculty, when teaching on the college level for at least 5 years, provide a quality product in the classroom that compares very favorably with the product put forth by full-time faculty (maybe even more favorably).

A third recommendation that I would make regarding research in this area revolves around short-term adjunct faculty. As I stated earlier, I firmly believe that at

least some of the findings in this study regarding short-term adjunct faculty can be attributed to the lack of a formal orientation program geared toward them. I think it might be interesting for a researcher to analyze the ratings on course evaluations for short-term adjuncts before a formal orientation program is implemented and compare them to ratings on course evaluations for short-term adjunct faculty after such a program is fully implemented. If significant differences are discovered, then one could begin to build a case that having a formal orientation program for newly hired adjunct faculty increases the likelihood that students will rate them favorably on faculty course evaluations.

The fourth recommendation that I would make regarding further research involves the effects of matriculation status, the number of hours per week a student spends on outside work for a course, and the grade which the student expects to receive in the course on student ratings of faculty. This study showed amazing consistency when measuring the effect of these independent variables on student ratings of faculty. First, it was discovered that matriculated students are far more likely to rate faculty favorably than non-matriculated students. Second, it was discovered that the more hours per week a student spends on outside work for the course, the more likely it is for that student to rate their professor favorably. Granted, the differences were only significant for two of the components of instructional quality, but this clearly warrants further investigation. Finally, it was discovered that students who expect to receive a grade of A in a course are far more likely to rate their professor favorably than those students who do not expect to receive a grade of A. Unfortunately, all of this data was only available for one academic term in the study that I conducted (summer 2006). Thus I believe that more extensive

studies should be done in this area with data from multiple academic terms, spread out over a much longer period. Would the findings still be the same? If not, then perhaps it could be argued that the summer 2006 data used in this study was an anomaly. But if the findings are consistent with what I discovered, then I would recommend that even further research be done to understand the "why" behind this trend. Why do matriculated students tend to rate faculty higher than non-matriculated students? Is it because they have taken more courses in the program and are thus more familiar with the professors than non-matriculated students? Why do students who spend more time on outside work for a course tend to rate faculty more favorably than those students who do not spend as much time on outside work? Is it because students who spend more time on homework simply have a greater fondness for academia? Or is it just that they care more about getting higher grades? If it is the latter, then that could partly explain why students who expect to receive a grade of A in a course rate faculty more favorably than those students who do not expect to receive a grade of A. But I also wonder if those students who expect to receive an A are rating the professor more highly because of just that fact alone. Similar reasoning would suggest that students who do not expect to receive an A are rating their professor less favorably because they believe the professor either does not like them or may be out to get them. Acquiring the answers to these questions will most likely necessitate qualitative research methods, such as interviewing students or program alumni (something which the researcher was forbidden to carry out in this study). But ultimately, that is what is needed to answer the question of "why?"

The fifth recommendation that I would make for further research is taking a closer look at the interaction effect between faculty type and the number of hours per week a student spends on outside work for a course as it relates to ratings on faculty course evaluations. As stated in the previous paragraph, it was discovered that the more hours per week a student spends on outside work for the course, the more likely it is for that student to rate the professor favorably. While this was true for two of the dependent variables, there were three dependent variables (variables 1, 5, and 8) where students who spent 4 to 6 hours per week on outside work for a course rated full-time faculty lower than either students who spent 1 to 3 hours per week or students who spent 7 or more hours per week on outside work for the course. I believe this warrants further investigation in terms of why this factor is different for full-time faculty than it is for adjunct faculty, whose ratings seem to increase when being evaluated by students who spend more hours per week on outside work for their courses.

The sixth and final recommendation that I would make for further research has to do with the interaction effect between a student's cumulative grade point average and faculty type. This study showed that students with a lower cumulative grade point average (in this case, students with a GPA between 2.5 and 3.49, as opposed to students with a GPA between 3.5 and 4.0) were less likely to rate full-time faculty favorably. This happened in the case of at least four dependent variables: clarity of learning objectives, relation of course activities to learning objectives, clarity of grading criteria, and the instructor's level of preparedness for class. One has to wonder if students with a lower GPA are less likely to rate full-time faculty favorably as a sort of backlash. Full-time

faculty certainly have a reputation for being tougher graders and assigning more work than adjunct faculty, so I certainly would not be surprised if this were the case. But in order to find out, a study with a qualitative component will most likely have to be carried out. In that way, the researcher will be able to learn why students with a lower GPA may be less likely to assign full-time faculty favorable ratings on course evaluation instruments.

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Appendices

Appendix A

Survey Administered to Graduate Students during Summer 2006

Directions: Before filling out the faculty questionnaire, please answer the following five questions. You may circle your answer to each question right on this page.

1. How many credits have you previously completed in the graduate education program? A) 0 B) 3 C) 6-12 D) more than 12

2. This course counts toward my: A) degree foundation B) degree concentration C) electives D) non-degree certification

3. For this course, I feel I need to spend this many hours of work per week outside of class on average: A) 1-3 B) 4-6 C) 7-9 D) 10-12 E) 13-15 F) more than 15

4. For this class, I expect to receive a grade of: A) A B) A- C) B+ D) B E) B- F) C+ G) C H) D+ I) D J) F

5. What is your cumulative GPA to date in the graduate education program? A) 3.5-4.0 B) 3.0-3.49 C) 2.5-2.99 D) 2.0-2.49 E) less than 2.0 F) not applicable (taking first course now)