

THE CONTRADICTORY FACULTY:  
PART-TIME FACULTY AT COMMUNITY COLLEGES

by

Richard Lee Wagoner

---

A Dissertation Submitted to the Faculty of the  
CENTER FOR THE STUDY OF HIGHER EDUCATION

In Partial Fulfillment of the requirements  
For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College

THE UNIVERSITY OF ARIZONA

2004

UMI Number: 3132265

### INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

**UMI<sup>®</sup>**

---

UMI Microform 3132265

Copyright 2004 by ProQuest Information and Learning Company.

All rights reserved. This microform edition is protected against unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company  
300 North Zeeb Road  
P.O. Box 1346  
Ann Arbor, MI 48106-1346

The University of Arizona ®  
Graduate College

As members of the Final Examination Committee, we certify that we have read the  
dissertation prepared by RICHARD LEE WAGONER

entitled THE CONTRADICTIONARY FACULTY: PART-TIME FACULTY AT  
COMMUNITY COLLEGES

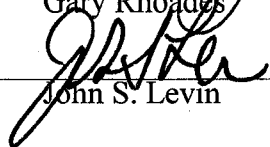
and recommend that it be accepted as fulfilling the dissertation requirement for the  
Degree of Doctor of Philosophy

  
John J. Cheslock

4/19/04  
date

  
Gary Rhoades

4/19/04  
date

  
John S. Levin

April 29/04  
date

\_\_\_\_\_

\_\_\_\_\_

date

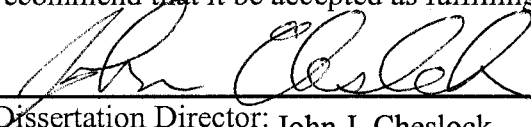
\_\_\_\_\_

\_\_\_\_\_

date

Final approval and acceptance of this dissertation is contingent upon the  
candidate's submission of the final copies of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and  
recommend that it be accepted as fulfilling the dissertation requirement.

  
Dissertation Director: John J. Cheslock

4/20/04  
date

## STATEMENT BY AUTHOR

This dissertation has been submitted in partial fulfillment of requirements for an advanced degree at The University of Arizona and is deposited in the University Library to be made available to borrowers under rules of the Library.

Brief quotations from this dissertation are allowable without special permission, provided that accurate acknowledgment of source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by the head of the major department or the Dean of the Graduate College when in his or her judgment the proposed use of the material is in the interests of scholarship. In all other instances, however, permission must be obtained from the author.

SIGNED: Richard L. Wagoner

## TABLE OF CONTENTS

	Page
List of Tables.....	8
Abstract.....	9
1. Introduction.....	11
<i>Statement of the Problem</i> .....	11
<i>Assumptions Underlying the Study</i> .....	12
<i>General Research Questions</i> .....	14
<i>Significance of the Study</i> .....	15
2. Literature: Context, Theoretical and Conceptual Frameworks.....	18
<i>Contradictions</i> .....	18
<i>The Use of Part-time Faculty at Community Colleges</i> .....	19
<i>Part-time Faculty Taxonomies</i> .....	21
<i>Bifurcation</i> .....	25
<i>Labor Market for Part-time Faculty</i> .....	26
<i>Globalizing the Community College</i> .....	29
<i>The New Economy</i> .....	31
<i>Conclusion</i> .....	43
3. Literature: Previous Empirical Studies.....	44
<i>Demographics</i> .....	44
<i>Labor Market Conditions</i> .....	49
<i>Faculty Satisfaction</i> .....	55

## TABLE OF CONTENTS - Continued

	<i>Conclusion</i> .....	57
4.	Methods.....	58
	<i>Research Questions</i> .....	58
	<i>Data</i> .....	60
	<i>Faculty Disaggregation</i> .....	64
	<i>Analysis</i> .....	68
5.	Data Analysis: Demographics and Educational Attainment.....	71
	<i>Gender</i> .....	71
	<i>Race and Ethnicity</i> .....	75
	<i>Citizenship</i> .....	77
	<i>Education: Highest Degree Attained</i> .....	79
	<i>Conclusion</i> .....	83
6.	Data Analysis: Labor Market Conditions.....	86
	<i>Income</i> .....	87
	<i>Professional Development Opportunities</i> .....	101
	<i>College Employment Perceptions</i> .....	103
	<i>Outside Employment</i> .....	107
	<i>Conclusion</i> .....	109
7.	Data Analysis: Satisfaction.....	111
	<i>Satisfaction Means</i> .....	111
	<i>Satisfaction Regressions</i> .....	118

## TABLE OF CONTENTS - Continued

	<i>Conclusion</i> .....	129
8.	Conclusions, Discussion, and Implications.....	130
	<i>Statement of the Problem</i> .....	130
	<i>Review of the Methodology</i> .....	131
	<i>Summary of the Results</i> .....	132
	<i>Discussion of the Results</i> .....	137
	<i>Importance of the Study and Its Relationship to Previous Research</i> .....	140
	<i>Implications and Recommendations</i> .....	142
	<i>Further Research</i> .....	144
	Appendix A: Seven Group Disaggregation.....	145
	Appendix B: NSOPF 1993 Two-year Faculty Race and Ethnicity by Percentage.....	150
	Appendix C: NSOPF 1993 Two-year Faculty Citizenship by Percentage.....	151
	Appendix D: NSOPF 1993 Two-year Faculty Highest Degree by Percentage..	152
	Appendix E: NSOPF 1999 and 1993 Income Means and Standard Deviations.	153
	Appendix F: NSOPF 1993 and 1999 Two-year Faculty Median Income.....	155
	Appendix G: NSOPF Professional Development Resources Available.....	156
	Appendix H: NSOPF 1999 Satisfaction Demands and Rewards .....	158
	Appendix I: NSOPF 1993 Satisfaction Demands and Rewards.....	159
	Appendix J: NSOPF 1999 Satisfaction Regressions All Faculty.....	160
	Appendix K: NSOPF 1993 Satisfaction Regressions All Faculty.....	162

## TABLE OF CONTENTS – Continued

Appendix L: NSOPF 1999 Satisfaction Regressions Part-time Faculty.....	164
Appendix M: NSOPF 1999 Satisfaction Regressions Full-time Faculty.....	166
Appendix N: NSOPF 1993 Satisfaction Regressions Part-time Faculty.....	168
Appendix O: NSOPF 1993 Satisfaction Regressions Full-time Faculty.....	170
References.....	172



## LIST OF TABLES

Table 4-1 NSOPF Variables Included in Study.....	63
Table 5-1 NSOPF 1993 and 1999 Two-year Faculty Gender by Percentage.....	72
Table 5-2 NSOPF 1999 Two-year Faculty Race and Ethnicity by Percentage.....	76
Table 5-3 NSOPF 1999 Two-year Faculty Citizenship by Percentage.....	78
Table 5-4 NSOPF 1999 Two-year Faculty Highest Degree by Percentage.....	80
Table 6-1 Two-year Faculty Individual Earned Income Comparisons 1999 and 1993....	89
Table 6-2 1993 and 1999 Two-year Faculty Mean Income Comparisons.....	94
Table 6-3 Two-year Faculty Professional Development Availability Comparison.....	101
Table 6-4 Two-year Part-time Faculty Perceptions of Institutional Employment by Percentage.....	105
Table 6-5 Two-year Part-time Faculty Other Employment Status and Sector by Percentage.....	108
Table 7-1 1999 Mean Satisfaction Comparisons Part-time vs. Full-time.....	112
Table 7-2 1993 Mean Satisfaction Comparisons Part-time vs. Full-time.....	116
Table 7-3 NSOPF 1999 Satisfaction Comparing Part-time to Full-time.....	120
Table 7-4 NSOPF 1999 Satisfaction Comparing Part-time to Full-time.....	122
Table 7-5 NSOPF 1993 Satisfaction Comparing Part-time to Full-time.....	125
Table 7-6 NSOPF 1993 Satisfaction Comparing Part-time to Full-time.....	127

### Abstract

Because of community colleges' diverse motivations for hiring part-time faculty, the multiple and at times conflicting missions of various two-year institutions, and the heterogeneity of part-timers themselves, contradictory descriptions of part-time faculty are found in the literature. This study sought to unify contradictory categorizations of part-time faculty in three specific areas: the general demographics of part-time faculty; the existence of a bifurcated or dual faculty labor market in community colleges; and satisfaction of part-time faculty.

The study was a quantitative analysis of community college faculty data from both the 1993 and 1999 National Study of Postsecondary Faculty. Given the evidence that community colleges are increasingly globalized institutions, the study sought to discover if part-time faculty could be better conceptualized in terms of temporary labor in the New Economy. Therefore, two-year faculty were disaggregated into seven groups based on college mission and relative employment opportunities outside of academe.

It is argued that a gulf exists for temporary labor in the New Economy. Some temporary labor is valued by the institutions that hire them because of the skill and expertise they bring. This group has numerous options outside of the employing institution to capitalize on their skills and expertise. On the other side of the gulf of temporary labor is the group that does not possess rare, highly-valued skills and abilities. These part-timers do not have numerous opportunities in multiple industries. This lack of employment options causes these part-timers to seek, sometimes desperately so, full-time, stable employment with the institution where they are employed. The findings from

this study indicate that these two types of part-timers exist simultaneously on community college campuses and they can be distinguished by the disaggregation employed by this study.

The study presented evidence that adds nuance to an understanding of part-time faculty in three areas: demographics, particularly in terms of gender and academic training; labor market conditions, including income, professional development opportunities, conceptions of institutional employment, and the status and sector of outside employment; and satisfaction with the demands and rewards of part-time employment.

## Chapter 1 Introduction

### *Statement of the Problem*

The use of part-time faculty in higher education, especially community colleges, is pervasive. According to the American Association of Community Colleges (2000), 64% of faculty at all community colleges were designated as part-time in 1997. Given the increased use of part-time faculty in American community colleges, to what extent do scholars and practitioners understand who part-time faculty in community colleges are, how they support themselves, their motivations to teach at community colleges, how they view their positions there, and their satisfaction with the demands and rewards of their positions? With the exception of Benjamin (1998), scholars have not conceptualized or analyzed part-timers as anything other than a single, aggregate group. Some scholars (Tuckman, 1978; Gappa & Leslie, 1993) have offered taxonomies of part-time faculty motivations for teaching, including limited descriptions of those groups, but none have sought to incorporate those taxonomies, or any other form of disaggregation into an analysis of part-time faculty. Given colleges' diverse motivations for hiring part-timers, the multiple and at times conflicting missions of various two-year institutions, and the heterogeneity of part-timers themselves, it is necessary to disaggregate part-time faculty in order to gain a more nuanced perspective of their place in higher education.

There is evidence (Levin, 2001) that any disaggregation should transcend the distinction of community colleges' transfer function and their vocational training function. While these two missions are important to the use of part-timers and each area attracts different individuals to faculty positions, Levin (2001) argues that community

colleges have become “globalized” institutions. Therefore, the disaggregation employed by this study distinguished not only between the transfer and vocational missions of community colleges, but also by notions of how individual disciplines are potentially integrated in to the new economy and globalization. This study’s faculty disaggregation, while seeking to unify contradictory conceptions of part-time faculty, was also concerned with the question: To what extent can part-time faculty at community colleges be understood as globalized labor? That is, do the theories and suggestions of scholars about the new economy’s labor force explain the positions and situations of community college adjuncts?

This study sought to unify contradictory categorizations in three specific areas: the general demographics of part-time faculty; the existence of a bifurcated or dual faculty labor market in community colleges; and satisfaction of part-time faculty. The study answered these questions through a quantitative analysis of community college faculty data from the National Study of Postsecondary Faculty of 1993 and 1999 (NSOPF 93; NSOPF 99) using descriptive statistics and regression analysis. Central to the analysis was a seven-group disaggregation of faculty determined by college mission and potential career opportunities outside of academe based in part on conditions determined by globalization and the new economy.

#### *Assumptions Underlying the Study*

A reasonable question at the beginning of such a study would be: Do we really need to disaggregate part-time faculty? Perhaps others have not attempted to disaggregate part-timers in the past because there is no need, or part-timers as a group are too

heterogeneous to make any sense of except in aggregate terms. The title of this study suggests an alternative possibility: just as Dougherty (1994) described the contradictory nature of community colleges as institutions, in this study I suggest that part-time faculty in community colleges are a contradictory labor force. The literature presents a dichotomy about part-time faculty and part-time/temporary labor in general. As far as part-time faculty in community colleges are concerned are they exploited (Karabell, 1998; Dubson, 2001) or highly trained and paid professionals (Gappa & Leslie, 1993); do they bring rare and highly valued expertise and training to campuses (Gappa & Leslie, 1993; Roueche, Roueche, & Milliron, 1995) or are they economic expedients and an easy means to efficiency (Rhoades, 1996); are they excluded and marginalized on campuses (Karabell, 1998; Dubson, 2001) or satisfied with their positions on campus and the relative lack of demands for time their temporary positions bring. Just as Dougherty (1994) demonstrated that the answers scholars would give to questions of why community colleges were founded, the effects and impact of community colleges on students, and the nature of community colleges' move toward vocationalization depends upon each scholar's perspective lens, it is my intention to offer evidence that the answers to the central questions of this study depend upon the position of part-time faculty within particular disciplinary areas of community colleges and the relative opportunities available to part-timers outside of academe. In this study I also seek to extend the thinking of Dougherty (1994) and Brint and Karabel (1989) in terms of the opposing missions of transfer and training as the source of many of problems faced by community colleges. That is, while at first glance the disaggregation I employ in this study may

appear as merely based on notions of transfer versus vocational training, I believe the disaggregation incorporates the role neo-liberal philosophy, the new economy, and globalization have played in the development of community colleges for the last 10 to 20 years. I propose that adjunct faculty at community colleges no longer are a temporary or contingent workforce as they have been viewed traditionally, but they now are institutionalized as a highly managed workforce (Rhoades, 1998) as a result of the globalization of the community college (Levin, 2001). I propose that the position of adjunct now resembles a global worker as described by Castells (2001), Smith (2001), and Aronowitz and DiFazio (1994). Part-time faculty at community colleges are better understood as a permanent workforce demanded by the process of globalization.

#### *General Research Questions*

By disaggregating part-time faculty in community colleges, to what extent is it possible to reconcile/unify the contradictory descriptions of part-timers in the literature? This was the central question I sought to answer in this study. To answer the question I analyzed three specific areas that arise from it: the general demographics of part-time faculty; the existence of a bifurcated or dual faculty labor market in community colleges; and satisfaction of part-time faculty. Each of these three areas, in turn, focused on several sub-questions.

In terms of general demographics I sought to discover if there were differences among the disaggregated groups in four specific areas: gender, race, citizenship, and highest degree attained. While all four of these factors have been described by scholars as important in terms of labor in the New Economy, gender and faculty training (highest

degree attained) have been areas where contradictory results have been debated in part-timer literature for years.

The second major area of analysis was concerned with the possibility of the existence of a bifurcated and/or dual labor market for community college faculty. That is, to what extent can the two-year college faculty labor market be described as bifurcated, and is that bifurcation striking enough to be categorized as a dual labor market? As with the general demographics section, this section focused on multiple variables: earned income, professional development opportunities, personal conception of institutional employment, and the status and sector of non-institutional employment.

Finally, the study sought to illuminate satisfaction differences between the disaggregated faculty groups. Specifically, to what extent do the disaggregated groups display differences in satisfaction regarding the demands and rewards of their faculty positions? Six individual variables were employed in this piece of the study. There were five specific satisfaction variables: overall satisfaction, job security, advancement opportunities, salary, and, benefits. In addition to these five variables, responses to the question of whether faculty would choose an academic career again were analyzed.

### *Significance of the Study*

The study suggests a new conceptualization of part-time faculty in community colleges. In it, I attempted to present evidence that unifies the apparently conflicting descriptions of part-timers. Given the evidence that community colleges are increasingly globalized institutions, the study sought to discover if part-time faculty could be better conceptualized in terms of temporary labor in the New Economy. The contradictions of



temporary labor in the New Economy resemble those of part-time faculty in community colleges. Castells (2001) and Smith (2001) argue that a gulf exists for temporary labor in the New Economy. Some temporary laborers are valued by the institutions that hire them because of the skill and expertise they bring. This group has numerous options outside of the employing institution to capitalize on their skills and expertise. If academe is conceived of as one industry, then the part-time faculty that have increased opportunities outside of academe probably possess skills valued by the two-year institutions that hire them and can choose where and when they will work. On the other side of the gulf of temporary labor is the group that does not possess rare, highly valued skills and abilities. These part-timers do not have numerous opportunities in multiple industries. This lack of employment options causes these part-timers to seek, sometimes desperately so, full-time, stable employment with the institution where they are employed. Their predicament is exacerbated by the fact that there is a surplus of people who can perform their duties, and companies, in an effort to embody the values of efficiency and flexibility central to globalized institutions, are reluctant to promote these part-timers to full-time status. Both Castells and Smith suggest that both of these groups coexist in the New Economy. They are not mutually exclusive; in fact, both types of part-timers can be found in the same institution simultaneously. By disaggregating part-time faculty in two-year institutions, this study presented compelling evidence that the disaggregated groups resemble one of the two types of New Economic part-time labor.

Beyond this conceptualization, the study presented evidence that the contradictory descriptions of part-time faculty in community colleges are all accurate. The study

increased knowledge of part-time faculty by unifying the taxonomies of Tuckman (1979) and Gappa and Leslie (1993) with more current theories of the use of part-time academic labor (Rhoades, 1998). This unification was accomplished by expanding the disaggregation introduced by Benjamin (1998). The study's disaggregation was conceived as a means of unifying the central contradiction of community college mission—the academic transfer mission and the vocational, labor force development mission—and employment opportunities outside of academe. The seven-group disaggregation also sought to incorporate faculty from all fields, expanding on the more exclusive nature of Benjamin's (1998) disaggregation.

Finally, the study presented evidence that adds nuance to an understanding of part-time faculty in three areas: demographics, particularly in terms of gender and academic training; labor market conditions, including income, professional development opportunities, conceptions of institutional employment, and the status and sector of outside employment; and satisfaction with the demands and rewards of part-time employment.

## Chapter 2 Literature: Context, Theoretical and Conceptual Frameworks

This is the first of two literature chapters. Its focus is on the central contradictions of community colleges, the use of part-time faculty in community colleges, the various descriptions and taxonomies of part-time faculty, and the influence of globalization and the New Economy on part-time employment. Ultimately, the chapter presents evidence that part-time faculty should not be viewed as a collective whole but should be disaggregated in a way to incorporate the issues discussed.

### *Contradictions*

Dougherty (1994) described community colleges as contradictory institutions. For him the major contradiction is centered in their missions; specifically, should community colleges focus on transfer programs or vocational programs? Brint and Karabel (1989) also argue that the rise and dominance of vocational programs in community colleges “diverted” the original vision of the transfer function for two-year colleges from the early 20<sup>th</sup> century. Dougherty (1994) indicates that the tension between transfer and vocational programs existed from the beginning of the junior college movement. This tension between these two missions is also manifested in the literature about community college faculty. Frye (1994) argues that the community college faculty literature is “at war with itself” (p. 214). While Frye (1994) does not specifically address part-time faculty, he presents an interesting contradiction: qualitative studies tend to describe community college faculty as “frustrated, demoralized, and overwhelmed” (p. 214), while larger, quantitative studies describe community college faculty as more content with their positions. Interestingly, the qualitative studies to which Frye refers focus on faculty from

a humanities and social science perspective, emphasizing traditional academic values—the values embraced by community college’s transfer function. By emphasizing academic values, though not always transfer faculty, these qualitative studies imply that the source of exploitation and dissatisfaction may be within the transfer function disciplines themselves; although this perspective has never been explicitly operationalized. The quantitative studies, on the other hand, do not necessarily emphasize academic values in their analysis and, therefore, do not find the same levels of exploitation or dissatisfaction. The studies cited by Frye do not focus on part-time faculty, but the contradicting perspectives he exposes are also evident in the part-time faculty literature.

#### *The Use of Part-time Faculty at Community Colleges*

The use of part-time faculty in higher education, especially community colleges, is pervasive. According to the American Association of Community Colleges (2000), 64% of faculty at all community colleges were designated as part-time in 1997. Clearly the use of part-time faculty is predominant at community colleges, and some critics take this aggregate data as proof there is a crisis that must be solved (Karabell, 1998; Dubson, 2001). Others (Gappa & Leslie, 1993; Gappa & Leslie, 1997; Biles & Tuckman, 1986; Roueche, Roueche, & Milliron, 1995) argue that the use of part-time faculty at community college is essential to meet the multiple missions of the community college and to offer open access and flexibility for the community. While this second group of scholars recognizes there are problems with the use of part-timers, they advocate reform of the system with the use of best practices focusing on recruiting, hiring, and retention

policies; working conditions; and integration of part-time faculty into the culture of the college.

Jacobs (1998) points out that, traditionally, part-time faculty were used to increase the prestige of institutions. Part-timers were most often visiting scholars, artists in residence, skilled professionals or technical workers, or distinguished citizens. In all these cases, the part-time faculty member brought skills, abilities, and talents to the institution not possessed by its regular faculty. This traditional use of part-time faculty continues today and is considered a good and valued practice. Part-timers in this category are identified by their impressive experience and/or their highly valued skills—experience and skills that full-time faculty do not possess. Generally, the majority of these individuals either have full-time employment outside the college or are retired.

Jacobs (1998) and others (Benjamin, 1998; Haeger, 1998; Wyles, 1998; Gappa & Leslie, 1993; Biles & Tuckman, 1986) have suggested the rising problem of part-time faculty in higher education does not center on this traditional use of part-timers, but on their use as convenient and expedient means to lower costs and increase flexibility for institutions (Rhoades, 1996; Gappa & Leslie 1993, Gappa & Leslie 1997; Roueche, Roueche, & Milliron 1995; Eliason, 1980). This practice has increased dramatically as the percentage of part-time faculty has grown over the last 30 years. These part-time faculty members are not viewed in the same positive light as traditional part-timers. They are frequently viewed as less skilled and trained than full-time faculty; the quality of their instruction and their dedication to the institution is questioned as well. These two views of the use of part-time faculty reveal an important contradiction: are part-time faculty

highly skilled and trained assets, or less-skilled means to achieving efficiency, flexibility, and control? They also have a relationship to the transfer and vocational functions.

People with training in academic disciplines would not necessarily possess skills and training beyond those of full-time faculty in community colleges, but people with advanced training and experience in specific vocational areas are more likely to possess skills that full-time vocational faculty may not possess. That is, on average it is reasonable to assume that a higher percentage of part-time faculty from vocational fields bring rare and valued skills to two-year colleges than do part-time faculty from academic fields. If that is the case more vocational faculty would fit the highly-valued, traditional definition of part-timer, while more transfer faculty would fit the definition of part-timers as a means to efficiency, flexibility, and control.

#### *Part-time Faculty Taxonomies*

While the previous section identified a contradiction based on the motivation of colleges to employ part-time faculty, this section addresses the various taxonomies used to describe part-time faculty and why they accept part-time positions. Tuckman (1978) was the first scholar to propose a taxonomy for part-time faculty, one which is still a basis for current studies. Tuckman suggests that there are seven mutually exclusive categories that describe the reasons why people choose to become part-time faculty: “the semiretired, students, those wishing to become full-time (Hopeful Full-Timers), those with a full-time job (Full-Mooners), those with responsibilities in the home (Homeworkers), those with another part-time job (Part-Mooners), and all others (Part-Unknowners)” (p. 307). This taxonomy was derived from a study commissioned by the

American Association of University Professors (AAUP) that included the responses of 3,763 part-time faculty from 128 institutions. The sample of institutions was stratified and included universities, four-year institutions, and two-year institutions. Because it does not focus solely on two-year institutions, Tuckman's (1978) taxonomy is not tied directly to the competing missions of community colleges. A semiretired part-timer might as likely be from a transfer program or vocational program, for instance. This taxonomy captures the idea that part-time faculty are a heterogeneous group with multiple motivations for teaching regardless of field.

While they generally accept Tuckman's taxonomy, Gappa and Leslie (1993) compress it into four categories: career enders; specialists, experts, and professionals; aspiring academics; and freelancers. Career enders are similar to Tuckman's (1978) semiretired category but also contains people who are already fully retired and those in transition from full-time established careers to eventual retirement. The specialists, experts, and professionals category is based on Tuckman's (1978) full-mooners category and is comprised of people with primary, usually full-time, careers outside of the institution. Tuckman's hopeful full-timers and students are collapsed into the aspiring academic category. This category can contain people who have managed to gain full-time teaching hours at higher education institutions by combining several part-time positions at different colleges and those who are confined to a particular location for various personal reasons. All of the members of this category desire the same status, benefits, and recognition of full-time faculty. Finally, the freelancers category contains members of Tuckman's homeworkers, part-mooners, and part-unknowners. Gappa and Leslie (1993)

make one critical distinction between freelancers and aspiring academics: they state that although freelancers do earn a part of their income at a higher education institution, they have no desire to be an academic and, therefore, are not aspiring academics.

Quayle (referenced in Leslie, Kellams & Gunne, 1982 p. 38-40) in an unpublished report analyzing the faculty of Hillsborough Community College in Tampa, Florida incorporated a three-part typology for part-time faculty: educational professionals, non-educational professionals, and permanent part-timers. Educational professionals are employed in other academic institutions, both secondary and postsecondary, tend to be female (58%), and are not necessarily seeking full-time employment at the study institution, but nearly one-fifth of this groups earns at least 25% of their income at the institution. Non-academic professionals are employed outside of academe, are predominantly male (85%), and 94% earn less than 25% of their income at the study institution. Permanent part-timers desire a full-time position at the institution but are unable to acquire one. Nearly two-thirds of the group is male and one-quarter of the group earns at least 25% of their income at the institution.

Benjamin (1998) also offers a disaggregation of part-time faculty, one based specifically on the contradictory missions of the community college. Using data from NSOPF 93 Benjamin divides faculty into two groups he terms the vocationally oriented cluster (VOC) and the liberal arts oriented cluster (LAC). The VOC is comprised of the fields of first-professional health, nursing, occupational programs, law, business, engineering, physical sciences, and teacher education. The LAC consists of history, English and literature, foreign languages, fine arts, sociology, philosophy and religion,



biological sciences, and political sciences. In terms of the two major missions of community colleges—the transfer function and training—the LAC can best be described as representing the transfer function, while the VOC can best be described as representing the training function.

Taken together, these four taxonomies suggest several important differences that should be considered in an examination of part-time faculty in community colleges. The taxonomies are based on three general divisions: the motivations for teaching at a college, the field or occupation outside of the college, and the discipline taught inside the college. Two of the possible combinations offer compelling examples of how both of the uses of part-time faculty discussed earlier can be present simultaneously at one college. Full-mooners/specialists are non-educational professionals and, even by Gappa and Leslie's description, tend to be a part of the VOC. By their nature this group does bring valued skills to a campus, skills full-time faculty might not possess. Given this, these part-timers would fit into the traditional use of part-timers. Conversely, aspiring academics tend to be permanent part-timers, and, once again even according to Gappa and Leslie's description, tend to be a part of the LAC. Full-time faculty in the LAC probably do have all the skills and training required by the college; therefore, these part-timers do not possess rare and valuable skills. Their employment at a college, then, could best be described as a means to create efficiency, flexibility, and control. These distinctions lead to important potential fault lines for community college faculty.

*Bifurcation*

The labor market for part-timers in community colleges is bifurcated in two distinct ways: among part-timers and between part-timers and full-timers. The first form of bifurcation was discussed above. There are those part-timers who are viewed as increasing the quality of programs because they bring valued skills and experience to the college and those who are viewed as possessing fewer skills and abilities than the regular full-time faculty. Furthermore, the motivations, other employment, and teaching fields of these groups can vary as well.

Benjamin (1998) presents compelling evidence that this division among part-timers is located between two of the competing missions of the community college. In his study, Benjamin (1998) identifies several areas where the two part-time faculty clusters differ. These differences surround qualifications, satisfaction, and income and will be discussed in detail in Chapter 3. These differences are important because they present evidence that there is a bifurcation among part-time faculty at community colleges. More importantly, this division is situated between a cluster that is predominantly in the transfer function of community colleges, the LAC, and a cluster that is located within the vocational training function of colleges, the VOC. Part-time faculty of the VOC bear a strong resemblance to the traditional, ideal part-timers described by Jacobs (1998), while part-timers in the LAC resemble the exploited workers decried by those (Dubson, 2001; Karabell, 1998) who seek best practices to improve the status and quality of part-time faculty.

The second form of bifurcation is between part-time and full-time faculties. When comparing part- and full-time faculty most scholars (Gappa & Leslie, 1993; Benjamin, 1998; Roueche, Roueche, & Milliron, 1995; Leslie, Kellams, & Gunne, 1982; Toutkoushian & Bellas, 2003) present compelling evidence that full-timers are clearly privileged, and that those privileges come at the expense of part-time faculty. The extent of the bifurcation between full- and part-timers is an area of contention. When viewed in the largest aggregate (Gappa & Leslie, 1997) the differences, while significant, are not interpreted as evidence of a dual labor market. Benjamin (1998) presents a substantially different picture by presenting data for only community college faculty and by disaggregating them into the VOC and LAC. While it appears there is not a dual labor market on average between all part-timers and full-timers, Benjamin (1998) presents evidence that one does exist at community colleges for those faculty in the LAC. This becomes important as I examine supply and demand of part-timers at community colleges and the significance of the new economy for understanding current realities of the use of part-timers.

#### *Labor Market for Part-time Faculty*

Benjamin (1998) presents evidence that labor market issues for part-time faculty are best viewed by clusters. Given the bifurcation discussion above, it is reasonable to assume that supply and demand realities are different for the VOC and the LAC. Three factors are particularly important for this study: the overall demand for VOC fields within the entire economy, the demand for LAC fields within the entire economy, and the supply of potential faculty for both the LAC and VOC fields in community colleges. Over the

past 10-15 years the demand for people trained in the fields represented by the VOC has been relatively high—not only in community colleges, but particularly in non-academic settings. During the 1990s and early 21<sup>st</sup> century these fields have enjoyed strong employment and wages. Labor market demand for the LAC fields is exactly the opposite. Not only has the demand for full-time faculty in the fields represented by the LAC been low in academe for at least the last 10-15 years, but also, with the exception of the biological sciences in bio-tech industries, there is little demand for these fields outside of academe, except perhaps for high school teachers. In either case, part-timers from the LAC have not seen the kind of general demand and high pay outside of community colleges that those from the VOC have.

A marked difference in demand for members of the two clusters also contributes to the supply of potential part-time faculty in community colleges. Because the demand for VOC fields outside of community colleges has been high and wages relatively strong, many in these fields have not had to seek supplemental employment as part-timers. In that case the supply of VOC part-timers in community colleges would be expected to be low. Conversely, the supply of potential LAC part-time faculty is high. Not only because opportunities for full-time employment have been limited, but also because graduate programs for these fields have continued to produce large numbers of people who desire an academic career. That is, an academic career is the expectation for members of the LAC and there are considerably fewer opportunities for them outside of academe, increasing the number LAC aspiring academics. Therefore, it is reasonable to expect VOC part-timers at community colleges would be at a premium because of the high

demand and scarce supply, while LAC part-timers would be disadvantaged both because of a lack of demand outside of academe and an ever increasing supply of potential LAC faculty completing graduate programs.

From one perspective demand for LAC part-timers can be seen as high. Wyles (1998) states that 50% of full-time faculty at community colleges nationwide will retire between 1998 and 2003. That would indicate that there will be great demand to replace those positions. While some positions have been filled with new full-time instructors, it has not caused a huge increase in demand. Because part-timers are so much less expensive, community colleges have been replacing full-time positions with multiple part-time positions to increase managerial control and program flexibility and to save precious financial resources. As Levin (2001) describes the situation community colleges seek to maintain production (course hours) while minimizing costs (salaries and benefits). This does increase demand, but in most areas there is such a glut of people with masters or doctoral degrees in the LAC fields community colleges still do not have a problem filling the positions. In fact, in many large urban and suburban areas a queuing effect is common. That is, potential adjuncts are lining up to obtain any position a current part-timer leaves.

The labor market for part-time faculty at community colleges is not homogenous. It varies between fields and, more importantly, it varies between the missions of community colleges and the clusters represented by those missions. The literature on part-time faculty up to this point has presented a confusing, or at least heterogeneous, picture. Depending on how one chooses to study the question part-timers might appear to

be satisfied with their work (Gappa & Leslie, 1997), completely exploited (Dubson, 2001), or somewhere in the middle (Roueche, Roueche, & Milliron, 1995). For many this presents a “conundrum” (Gappa & Leslie, 1997) with no clear solution. For others (Roueche, Roueche, & Milliron, 1995; Jacobs, 1998) it calls for more clear and just policies and procedures. I believe viewing the use of part-time faculty through the lens of the new economy and the changes it has brought over the last 30 years provides a method of understanding the heterogeneous nature of part-timers in community colleges.

### *Globalizing the Community College*

For Levin (2001) globalization is a scholarly concern that is both a concept and a process. Conceptually it represents a compression of both time and place. As a process it “intensifies social and political relationships and heightens economic competition” (p. x). In this sense globalization gives him a framework to understand the organizational change in community colleges over the last decade. Globalization allows him to use the continuum suggested by Cameron (1984) where organizational change can be considered from purely environmental factors to purely managerial factors. That is, Cameron’s continuum leaves room for both environmental adaptation and symbolic meaning making. Levin (2001) argues that community colleges are not globalized because they respond directly to global concerns or purposes. Instead, he suggests: “the community college has become a globalized institution because it has been affected by global forces, by the actions of intermediaries who have responded to global forces and by the interpretations of organizational members to both global forces and to the responses of intermediaries. Globalization as a process finds an outlet within the community college in

which economic, cultural, and technological behaviors are advanced along lines consistent with and supportive of globalization” (p. xiii). Globalization then is both an environmental, or external, force influencing community college response, and, once internalized by members of the community college, a cultural belief and internal force about the goals and mission of the community college.

A movement toward the marketplace and the neoliberal state characterizes the process of globalization. That is, during the last 20 years, community colleges have been influenced by both private businesses and the national government. This influence has led community colleges to emphasize workforce training and state economic competitiveness while adopting an orientation closely resembling new economy business models. This business model emphasizes financial rationales and seeks to increase production with the same, or fewer resources expended. “In general, money—and not educational objectives—[drives] production” (p. xix). This emphasis on private interests and governmental economic policy tends to drive out “education and a balanced recognition of human achievement and worth” (p. xx), which largely shapes “citizens into economic entities as either workers or consumers or both” (p. xxiii). Simply put, the effect is to emphasize productivity, efficiency, and the commodification of education and training.

Levin suggests that while there is a wide array of definitions about what globalization is, there is consensus on how it shapes organizations. It drives the production process for organizations to increase profits. For non-profit organizations the drive to increase profits is manifested as an emphasis on increasing efficiencies. Part-time faculty are at the heart of this drive toward efficiency for community colleges. Adjunct

faculty are inexpensive and allow management considerable flexibility to respond to consumer/market demands. All part-time faculty, both those from the vocational fields and from the liberal arts fields, have become central to the mission and success of the globalized community college.

### *The New Economy*

Eliason (1980) presents an argument that demonstrates my point. “The adult who turns to the two-year college for skills and/or credentials needs instant service—community colleges must be ready to provide work skills to match the changing requirements of the job market. A static faculty cannot provide this” (p. 9). In the article she argues for the type of best practices and part-time faculty integration that is still called for 17 years later by Gappa and Leslie (1997), but at the same time she presents an argument that legitimizes the notion of the new economy/post-industrial model which has served to increase the use and, for some, exploitation of part-time faculty. The language of the quote is the key to understanding how the new economy has come to be the dominant model for community colleges.

Eliason (1980) makes no mention of the transfer function in her statement, thus from the beginning the other missions of the community college are privileged. While there is some difference between them, these missions can all be described as vocational or job/career related. Whether a student seeks to complete a GED, to acquire a better job, to train to become a computer network engineer, or to be retrained for a new position in her or his current company, the non-transfer functions of the community college have all come to be viewed in terms of skills training and employment. Eliason refers to work



skills, the job market, and credentials. While credentials could refer to an associate's degree and transfer to a university, given the context of the rest of the statement, it seems likely that she is referring to employment credentials, not academic ones. Students are described as customers who must be given instant service that produces marketable skills. And, finally, a static faculty is not up to the task. Static is a particularly interesting word in this context because it can refer both to an individual full-timer who has not grown professionally to meet these new demands and to a mostly tenured faculty that cannot readily be rearranged to meet changing demands. Ultimately, the statement presents the community college and its faculty as a post-industrial business, a lean, flexible organization ready to exploit, and profit from, a constantly changing marketplace that demands instantaneous service. Eliason never explicitly mentions the new economy in this quote, but her language is permeated by its ideology. In the rest of this section I will describe the new post-industrial economy with a particular emphasis on how it has influenced labor markets and work patterns.

Carnoy (2000) describes the core values of the new economy as flexibility, innovation, and risk and that it "requires a workforce that is not only well educated, but also ready to change jobs quickly and to take the risks associated with rapid change" (p. 1). He adds that a central reality of the new economy is that it compresses space and time due to ever improving technology. Information is at the center of the new economy because it is the product that can flow through this compressed space/time. This is a simple description of the new economy, but it gives a clear picture of my concerns. While the different terms used in conjunction with this model vary and some theorists debate the

validity of one term over the other, for my study, I embrace them all because I am not concerned with finding the “true” definition of the new economy. I am concerned with how these changes have affected community colleges. The term post-industrial is frequently used to describe this era. Because products and mass production are no longer the focus of this system, it can be understood as post-industrial. It is also referred to as the information age which emphasizes the dependency on information, usually transmitted through high technology, and the fact that information has become the prime commodity. Castells (2000) prefers the term informationalism, but for my purposes his term fits the same definition. Others refer to globalism or globalization. This comes from the particular shrinkage of time and space inherent in the late 20<sup>th</sup> and early 21<sup>st</sup> centuries. That is, the world has become smaller and more closely interrelated particularly because of communication and transportation technologies. It does not necessarily refer to a global market; these have arguably been in existence at least since the 16<sup>th</sup> century. No matter the term one prefers, the new economy has had a considerable impact on community colleges and on their use of part-time faculty.

The influence of the new economy has isolated individual workers and allowed institutions to increase efficiency and flexibility in a form of hyper-capitalism. Manuel Castells (2000) in his book, *The Rise of the Network Society*, devotes a chapter to how work has been transformed by the new economy. He argues that the most “fundamental transformation” in work and employment is “the individualization of work and the fragmentation of societies” (p. 217). He sees some of this transformation due to globalization, the new economy, and informationalism, but he also sees it as a form of

capitalism that is socially constructed and part of the decisions made by management to control profits. This is also a central concern of Carnoy (2000). If individuals must fend for themselves with no protections, either from the government or from unions, in the marketplace, there is the potential for a lucky few to reap considerable rewards, but many others will be exploited. Smith (2001) equates the differences in potential rewards to a “great divide”; in order to cross this divide, workers must be willing to take increased individual risks. This idea is in direct contrast to the social contract that governed employee/employer relations throughout the mid and late 20<sup>th</sup> century (Osterman, Kochan, Locke, & Piore, 2001).

Castells (2000) describes how a new division of labor demonstrates individualization. This new division of labor has three dimensions: value-making, relation making, and decision-making. The value-making dimension concerns the tasks done by employees. Castells presents six categories for the value-making dimension with part-timers falling in the bottom two categories. Part-time faculty are not the autonomous commanders, researchers, designers, and integrators Castells mentions; instead, they resemble the operators or operated he discusses. Interestingly, full-time faculty, particularly at Research I universities, can easily be seen as commanders, researchers, designers, and integrators, but part-timers either execute tasks under their own initiative (operators), or they execute “ancillary, preprogrammed tasks that have not been, or cannot be, automated” (p. 259). In this case part-timers are operated, or human robots. In many cases the courses adjuncts deliver are preprogrammed, with instructors given a preselected text and sometimes a syllabus. There is little doubt that adjunct faculty are

less autonomous than fulltime faculty. This may not be a central concern of members of the VOC because they are likely to have full-time employment outside of colleges that provides them with higher level value-making opportunities. The aspiring academics from the LAC, however, would be expected to have fewer or no additional value-making opportunities.

Part-timers are assigned to specific tasks that Castells (2000) defines as “non-interactive, one way instructions” (p. 260). This is the position of part-time faculty in the relation-making dimension, which Castells categorizes as “switched-off” as compared to networkers or networked. In this dimension it is the networkers who have autonomy and agency. The networked worker is “online but without deciding when, how, why, or with whom” (p. 260). While one could make an argument for adjuncts as networked workers, they are still without agency and status. Again, members of the VOC are likely to have increased opportunities for relation-making in outside full-time employment, while aspiring academic members of the LAC do not have these outside opportunities.

The final dimension is decision-making. Again, part-timers have no autonomy in this dimension either. They do not have input into decisions and merely “implement decisions” (p. 260). In Castells’ (2000) terms, they are neither “deciders” nor “participants,” but “executants” (p. 260). Hence, in this new division of labor part-time faculty can be seen as operated, switched-off executants. This leaves little doubt that part-timers are at the bottom of the hierarchy at any community college, which might have a larger effect on those part-timers who do not have opportunities outside of colleges to realize independence, agency, and autonomy—members of the LAC.

From this perspective part-time faculty are marginalized. Interestingly Castells (2000) states “bifurcation of work patterns and polarization of labor is not the necessary result of technological progress or of inexorable evolutionary trends (for example the rise of ‘post-industrial society’ or of the ‘service economy’). It is socially determined and managerially designed in the process of ...capitalist restructuring” (p. 266-7). This is an important point. The use of part-timers does not have to be tied to any of the explanations of labor markets over the last 20-30 years as much as it reflects the move toward market-values in community colleges, no matter what the influence. As Levin (2001) argues the values of globalization can be embraced by a college’s organizational culture, even if the college itself is not directly competing in a global market.

Castells (2000) also believes that “just-in-time labor seems to be substituting for just-in-time supplies as the key resource of the informational economy” (p. 289). This pertains to part-timers: they are frequently hired at the last minute to take a course that has enough demand to carry. That is, if there enough people interested in a course (customers) community colleges can quickly find the labor. This uncertain, last-minute hiring is particularly challenging for aspiring academics who attempt to earn a living as part-time faculty. Full-mooners are less affected by these practices because of their stable full-time employment outside of academe.

Castells (2000) also distinguishes between a “core labor force” and a “disposable labor force” (p. 295). Again, Castells emphasizes that neither of these categories is the inevitable conclusion of the new economy, but the result of a business or policy decision. Castells suggests that this restructuring of labor has come at this time because of

“historical circumstances, technological opportunities, and economic imperatives” (p. 300). All three of these forces have caused workers to become disconnected from a community of labor, whether it is an organized union or some less formal structure. Castells argues that in the past 30 years there has been “relentless pressure to make the labor contribution as flexible as it could be. Productivity and profitability were enhanced, yet labor lost institutional protection and became increasingly dependent on individual bargaining conditions in a constantly changing labor market” (p. 302). This is precisely one of Rhoades’ (1998) arguments concerning part-time faculty. The emphasis Castells puts on productivity and profitability echoes Levin’s (2001) argument about how the drive toward efficiency affects community colleges.

Aronowitz and DiFazio (1994) in their book, *The Jobless Future: Sci-tech and the Dogma of Work*, devote a chapter to faculty work in higher education. “A Taxonomy of Teacher Work,” offers multiple versions of stratification. Initially, Aronowitz and DiFazio discuss the five types of academic professionals in higher education since World War II: (1) scholars and/or intellectuals; (2) administrators and managers; (3) entrepreneurs; (4) teachers; and (5) the academic proletariat. While these types are described as pure or ideal and in the real world there is overlap, it is clear that the fourth and fifth category have a much lower status than the first three. For the purposes of my study part-time faculty are members of the academic proletariat: “part-time labor...the academic proletariat is not the majority of working teachers, except in an increasing number of community colleges” (p. 238). Another interesting point from this list is that Slaughter and Leslie (1997) would argue that entrepreneurs have become increasingly

important to Research I institutions, adding to the idea that higher education as a whole, not just community colleges, has moved to a business model, a lean and mean model at that. Slaughter and Rhoades (in press) have refined and expanded this view, demonstrating that entrepreneurial activity is evident in all levels and various divisions of higher education. While part-timers can be considered teachers as well, their part-time status and the fact that I am focusing on community colleges delegates them for my purposes to the proletariat. Full-time faculty at community colleges would be considered teachers in this hierarchy.

From these categories of academic labor Aronowitz and DiFazio (1994) move to a stratification that resembles the Carnegie classifications. Once again, this classification is hierarchical with community colleges on the bottom. An interesting point is that they make explicit what is more implicit in the Carnegie classification itself: manufacturing new knowledge (research) is much more highly valued than transmitting knowledge (teaching).

Finally, Aronowitz and DiFazio (1994) offer their own version of the categories of part timers based in part on the taxonomies of Gappa and Leslie (1993) and Tuckman (1978). Aronowitz and DiFazio (1994) have four categories for the motivations for one to be a part-time faculty member. First is the love of teaching: many state they are part-timers because they love to teach and adjunct work allows them to do that without the demands of either research or service. The second group believes strongly in the intrinsic value and pleasure of education and knowledge. Teaching as a political vocation is the draw for others. This is not a program of indoctrination but it allows this group of

teachers to “stimulate critical thinking against what they believe to be the deleterious effects of mass culture and official knowledge” (p. 257). The last group has become “uneasily comfortable” as adjuncts. “They may earn a meager and insecure living, but it is enough and it beats the work offered to them elsewhere” (p. 257). For some in this fourth group this might be the best work they can secure without having to migrate, especially if they live in a college town. From the discussion on bifurcation of the VOC and LAC, members of either group might choose to teach for the first three reasons. It is reasonable to assume that only part-timers with limited outside employment opportunities—more than likely members of the LAC—would teach for the fourth.

Aronowitz and DiFazio (1994) also discuss how part-timers were traditionally viewed and used in higher education and how that has changed, a topic discussed earlier. Their addition here is that they point out an interesting change in individual perceptions because of this change. In a study of California part-timers from 1980, Abel (1984) found that many of them blamed themselves for not being able to obtain a full-time position. This was at a time that meritocracy was a dominant value in higher education, and higher education in general was not thought of in business terms as much as it is today. In a study from the mid 1990s, Barker (1998) found that part-timers were acutely aware of the new business efficiency model with its resulting bifurcation of faculty labor and no longer blamed themselves for not having a full-time position, but instead blamed the unjust system, a strong indication that the nature of part-time work in community colleges has changed and with it the perceptions and responses of adjuncts as well. This



change in perception is much more important for aspiring academics as they are the group of part-timers that would be seeking full-time academic employment.

Barker's (1998) study also emphasizes how the locus of control of part-time faculty has changed from being intrinsic, a personal belief in meritocracy, to being extrinsic, a managerial style modeled on new economic principals, and how that change is reflected in the altered self-perceptions of part-timers. Institutions used to be able to count on the belief in meritocracy to help control academic employees, particularly part-timers, but now the control is located within the administration and the business model they choose to use. This change in the locus of control relates to the socially constructed nature of workforce realities to which Castells (2000) refers and to the increasing managerial control to which Rhoades (1998) refers.

As mentioned above, Barker (1998) has also studied how part-time, contingent employment has affected faculty. Barker (1998) states that the restructuring of the workplace has occurred because of reorganization, downsizing, and expansion of contingent employment. This fits well with Levin's (2001) ideas because reorganization for community colleges has to do with the increased diversity of their mission through the 1970s and 1980s. For community colleges, downsizing focuses on maintaining production while decreasing costs, which is most evident at community colleges through their use of part-time faculty. Barker is concerned with perceptions of and about part-timers, the perceptions of part-timers and the perceptions about them held by those department leaders who would be instrumental in hiring part-timers for a full-time position. Barker presents a picture consistent with a bifurcated workforce and makes the

source of bifurcation explicit: as contingent faculty work they accumulate deficits in academe. They view themselves as less worthy. They view the meritocratic system as a hoax or cruel joke. And, they are viewed by full-time faculty as less deserving and unworthy of full-time employment. Barker conducted two separate studies to draw these conclusions. The self-perceptions of contingent faculty are drawn from an interview based qualitative study and the full-time faculty views are determined by a survey of the attitudes of department chairs and deans concerning hiring someone with varying degrees of adjunct experience.

In contrast to Gappa and Leslie (1997) who believe part-time and full-time faculty can form one faculty, a collegium, Barker states, “The contradiction of workplace transformation in higher education is that it institutionalizes privilege for one set of citizens (tenured and tenure track faculty) at a cost to others. The failure of inclusion within academe, or the success of exclusive membership, is revealed when a system of layered citizenship is constructed, made coherent, and legitimated” (1998 p. 199). This is precisely the problem with Gappa and Leslie’s (1997) argument, as well as Roueche, Roueche, and Milliron’s (1995): best practices are never going to be implemented because they are not economically viable. The whole point of the new economic use of part-timers depends on their increased exploitation, and unless there is a major crisis within the community college system behaviors will not change. That is, as long as community colleges are tied to economic development and private interests, and they employ the business models preferred by those interests, they will continue to view part-timers as a central means to controlling production costs. The current atmosphere of

lower state appropriations to community colleges because of staggering budget shortfalls is also an important factor in the decision to employ an ever increasing number of part-timers at community colleges.

Benjamin (1998) demonstrates that there is a problem with representing part-time faculty in the aggregate. Because some scholars have shown that part-time faculty are generally satisfied with their positions, it is not only important to disaggregate their responses, it is also important to seek alternative explanations for such responses. Barker (1998) contributes one such explanation when she discusses the “muzzled protest” of part-timers. Because part-timers have been professionally socialized, they self-censor and do not speak out because they know it will jeopardize their chances at achieving a full-time position. This is exactly where the lack of protest and voicing of dissatisfaction comes in. Barker argues that part-timers may present a satisfied, cooperative demeanor for their own reasons: “When voicing discontent is too costly, the *appearance* (emphasis in original) of loyalty through silence or cooperation protects the worker from the costs associated with voice” (p. 206).

Finally, Barker introduces a powerful metaphor to understand the how part-timers view themselves and how others view them: stigma. Barker argues that contingent faculty become viewed in a way that marks them as both marginal and inferior when compared to full-timers, in Roueche, Roueche and Milliron’s (1995) term, “strangers in their own land.” This idea of stigma is drawn from a powerful, but racist, quote. One of Barker’s (1998) participants says, “Working as an adjunct is like becoming a Black. You cannot become White again” (quoted in Barker p. 203). While race is a powerful and loaded

metaphor in the United States and the quotation is clearly racist in its hyperbole, the depth of alienation and powerlessness adjuncts can feel certainly is encapsulated in the quote's sentiments.

### *Conclusion*

Justification for the use of part-time faculty in community colleges presents a contradiction: are part-timers employed because of the rare, valued skills they offer a college to supplement its full-time faculty, or are they a means for administration to increase efficiency, flexibility, and control? The four taxonomies discussed in the chapter indicate that part-timers can be disaggregated by three important conditions: their own motivations to seek part-time employment, the nature of their employment outside of colleges, and the field in which they teach inside institutions. Benjamin (1998) offers evidence that these factors are represented by dividing faculty according to the community college mission which they serve. These two competing, conflicting, and contradictory missions—transfer versus vocational training—are central to arguments presented about the nature of community colleges in general. Just as multiple missions exist simultaneously in community colleges, part-time faculty can be both skilled experts and an exploited labor force. New Economic theories emphasize aspects of capitalism that make this contradiction possible. The following chapter will explore empirical findings from the literature concerning the three areas of this study: faculty demographics, labor market conditions, and satisfaction.

### Chapter 3 Literature: Previous Empirical Studies

While Chapter 2 discussed central contradictions of the use of part-time faculty in community colleges and, therefore, the need to disaggregate faculty further to understand these contradictions, this chapter will focus on the findings of empirical studies regarding the three specific areas investigated in this study. The chapter begins with an exploration of faculty demographics, moves to a discussion of general labor market conditions, and concludes with satisfaction results from earlier studies. It is important to note that several of the studies discussed in this chapter either do not include analysis of full-time faculty for comparison or only include analysis for all postsecondary part-time faculty, not for two-year part-time faculty.

#### *Demographics*

While there are numerous demographic variables for community college faculty, this section is focused on three specific areas: gender, race and ethnicity, and highest degree attained. These variables are important to the study because they add control in discerning differences in the other areas, and they can also indicate differences between faculty groups.

As mentioned in Chapter 2, Tuckman (1978) conducted the first large scale study of part-time faculty. The survey included responses only from part-time faculty; therefore, no comparison to full-time faculty is available. One other limitation to this survey is that Tuckman did not include findings for part-time two-year faculty, only all part-time faculty. His analysis presented data by the seven group taxonomy discussed in Chapter 2, illuminating several interesting findings regarding gender. Overall, women

were 39% of the part-time labor force represented in the study. While women were a minority overall, in the mid 1970s they represented 97% of part-time homeworkers and 53% of the hopeful full-time category. These were the only two categories where women were in the majority. They were a considerable minority in both the semiretired (25%) and full-mooner (14%) categories. Each of these four findings indicates that women were severely disadvantaged in the mid 1970s; they were virtually responsible for all home related responsibilities, had a more difficult time finding full-time academic employment, were far less likely to have enjoyed a full-time career from which they were retired, and were much less likely to be employed full-time outside of academe as well.

By 1988 the overall percentages of part-time female faculty had changed little. Gappa and Leslie (1993) analyzing data from NSOPF 88 found that women comprised 42% of all higher education part-time faculty and 39% of two-year part-time faculty. Unlike Tuckman (1978), Gappa and Leslie (1993) do offer results for full-time faculty as well. According to NSOPF 88 only 27% of full-time faculty were women. Toutkoushian and Bellas (2003) add an interesting nuance to the data from NSOPF 93: of all women employed as higher education faculty in 1993 slightly more than half (50.6%) of them were employed part-time, while only 38% of all male faculty were part-time. Thus in 1993 while men were still the majority in part-time faculty, as a group they were much less likely to be employed part-time when compared to women. Berger and Kirshstein (2003), using several variables available including a preference for full-time work, current or impending retirement, percentage of income from higher education and from outside higher education to create the categories, applied Gappa and Leslie's (1993)

taxonomy to respondents from NSOPF 99 to create the most recent findings available. In the fall of 1998 women were 48% of all part-time faculty and only 36% of all full-time faculty. However, they comprised 53% of the aspiring academic group and 57% of the freelancer group. As the freelancer group includes Tuckman's homeworkers, this result indicates that women were much less tied to homes in 1998 than they were in the mid 1970s, but they still had a more difficult time than men in securing full-time academic employment.

There are several studies that do offer results for part-time faculty in two-year institutions. Gappa and Leslie (1993), using data from NSOPF 88, indicate that 39% of two-year faculty are female. They do not present data for full-time faculty at community colleges, however. Valadez and Antony (2001) found that women were 47% of the community college part-time faculty based on the results of NSOPF 93. As with Gappa and Leslie (1993), Valadez and Antony (2001) do not include results for full-time faculty.

Race and ethnicity is the second demographic variable. Tuckman's (1978) study offers only two categories: Caucasian and Black. Regardless of category, he found that all postsecondary part-timers in the mid 1970s were overwhelmingly white—92% overall and never less than 89%. African Americans represented 3% of the overall part-time population and reached only 5% in their highest category (part-unknowners). Although Tuckman does not have data on other racial groups, it is clear that all other groups would have had extremely low representation in the 1970s. As with gender, Tuckman did not collect data for full-time faculty. Gappa and Leslie's (1993) analysis of NSOPF 88 data indicates that little had changed between the 1970s and 1988. They indicate that 91% of

all part-time faculty were white in 1988, virtually no different than Tuckman's (1978) study. In comparison, 89% of full-time faculty were white in 1988, indicating that postsecondary part-time faculty were slightly less diverse when compared to full-timers, though both groups were predominantly white.

The only study to present data individually for two-year faculty (Valadez & Antony, 2001) does not include data for full-time faculty. By the fall of 1992 the representation of non-white groups had increased, but still lagged behind the population in general. Valdez and Antony (2001) report that according to NSOPF 93 data 84% of all part-time faculty in community colleges were white, while 8% were African American, 6% Hispanic, 3% Asian/Pacific Islander, and 1% Native American/Alaskan Native. Each of these studies indicates a common finding regarding race: no matter the institution type or position status, underrepresented groups continue to lag behind in representation in American higher education faculty.

The final demographic variable is highest degree attained, a measure of formal training and instructional quality. This study is particularly concerned with the percentage of part-time faculty who possessed at least a master's degree—the de facto minimum requirement for community college employment for members of the LAC faculty, but not always for members of the VOC faculty. Tuckman (1978) found that overall 70% of all higher education part-timers in the mid 1970s possessed at least a master's degree. The group that had the lowest level of attainment (60%) was students, and hopeful full-timers had the highest level of degree attainment with 87% possessing at least a master's degree. Once again, Tuckman did not have full-time faculty data for comparison. Analyzing data



from NSOPF 88, Gappa and Leslie (1993) reported that 72% of all part-time faculty had attained at least a master's degree, a slight increase from Tuckman's (1978) study. Gappa and Leslie (1993) go on to argue that the highest degree attained may not be as important as whether or not a person has the proper amount of education and training to teach the courses for which they are responsible, which is consistent with their claim that part-time faculty are highly skilled professionals. Berger and Kirshstein (2003) in their analysis of data from NSOPF 99 found that 80% of all part-time faculty possessed at least a master's degree. When they disaggregated by Gappa and Leslie's (1993) taxonomy, they found that aspiring academics had the highest percentage (85), and specialists, experts, and professionals had the lowest percentage (73). In general, it appears that while there are significant differences in degree attainment using Gappa and Leslie's disaggregation, degree attainment does not vary in large amounts from the overall average.

As with the other demographic variables, few results are available regarding degree attainment that focus only on two-year institutions. Valadez and Antony (2001) found that data from NSOPF 93 indicated that 60% of part-time faculty at two-year institutions possessed at least a master's degree. They do not include data for full-time two-year faculty. Benjamin (1998) offers an interesting contrast to this aggregate data from NSOPF 1993. While he does not include percentages of faculty with a master's degree, Benjamin does demonstrate a significant difference between the LAC and VOC. Fourteen percent of all two-year part-time faculty possess a first professional degree or a Ph.D., while 22% of part-timers from the VOC possess them and only 8% of those from the LAC do. In contrast, 19% of two-year full-time faculty had attained a Ph.D. or a first

professional degree. The two clusters of full-time faculty were quite different when compared to part-timers. Only 14% of full-time VOC members had attained this level of education, while 27% of LAC faculty had acquired terminal degrees. Interestingly, a higher percentage of part-timers from the VOC had attained a terminal degree than had full-timers in the VOC. This finding might indicate that part-time members of the VOC are better trained for their positions at community colleges than their LAC counterparts, but without results for faculty members who possess master's degrees it is inconclusive for two-year faculty.

Demographic data from past studies indicate that part-time faculty tend to be white and male. Although results are limited in the literature, part-timers demonstrate even less diversity in these two areas than do full-timers. Regarding degree attainment, in the aggregate part-timers have relatively high levels of education, but do not match their full-time counterparts. When previous disaggregations are used some differences do appear, but the differences do not indicate substantial changes from the aggregate data. Benjamin's analysis (1998) is an exception in terms of degree attainment, but it is difficult to draw a clear conclusion because he did not include data for faculty who had acquired a master's degree.

### *Labor Market Conditions*

The second section of the chapter and the second area of this study focus on several labor market factors: income; part-time faculty perceptions of their employment at the study institutions; and, the nature of part-timers' outside employment—full-time or part-time and the sector where employed. Data for some of these variables is somewhat

limited, but Tuckman (1978), Gappa and Leslie (1997), Benjamin (1998), Toutkoushian and Bellas (2003), and Berger and Kirshstein (2003) do offer some data, particularly regarding income.

Tuckman (1978) includes individual earned income data for 1976. These data do show considerable variation. The average individual earned income for all part-timers is \$14,826, with homeworkers showing the lowest individual income (\$5,346) and full-mooners with the highest (\$22,802). These differences are not unexpected as homeworkers, by the definition discussed in Chapter 2, presumably have unpaid responsibilities at their home, and full-mooners have full-time careers outside of the institution where they teach part-time. Interestingly, hopeful full-timers have the second lowest individual income (\$8,660), indicating that they probably only work part-time in academe as they attempt to secure a full-time position.

NSOPF 93 is the dataset that has been most studied regarding income. Analyzing data from NSOPF 93, Gappa and Leslie (1997) argue that part-time faculty are not economically disadvantaged when compared to full-time faculty. They do not disaggregate the data, leaving all part-timers as one group. While they do discuss household income, this study is particularly concerned with individual annual income. Gappa and Leslie indicate that 62% of part-timers earn less than \$40,000, while only 29% of full-timers have similar earnings. Conversely, twice the percentage of full-timers (48) earn between \$40,000 and \$70,000 annually as do part-timers (24). Part-timers do earn incomes of over \$100,000 in comparable percentages as full-timers, 8% and 9% respectively. These differences are magnified by academic sector. While Gappa and

Leslie do not include exact figures they do indicate that part-time faculty at community colleges report lower earnings than their university counterparts. These are significant differences, but Gappa and Leslie downplay them: "Only 10.5% of part-timers live in households with annual income below \$25,000. Clearly a segment of part-timers are dependent on their teaching jobs for income, but it is a small one" (p. 11). This comment is based particularly on the statistics for household income, indicating that many part-timers are more dependent on a partner's income than are full-timers.

When Benjamin (1998) disaggregates the VOC and LAC clusters, a clearer picture appears. At two-year institutions LAC part-timers earn more income from the institution than do those in the VOC. Because there is little or no difference in the pay between clusters at community colleges, it is reasonable to assume that LAC faculty teach more at the institution. The total individual income of VOC part-timers is considerably higher than LAC, with members of the VOC earning nearly \$52,000 per year and those in the LAC earning \$35,000 per year. The total household income of the two groups is closer, but the VOC still leads with \$63,500 annually and the LAC with \$55,800 annually. Most interesting here is that part-timers in the VOC earn over 80% of their household's income, while those from the LAC earn 63% of their household's income. That is, without the additional financial support of others in their household, LAC part-timers would be much worse off financially. While there are multiple reasons for these findings, it is quite likely LAC faculty combine several part-time positions, perhaps all in academe or lower paying, less prestigious full-time positions, that allow them the flexibility to teach more classes at community colleges. In either case, part-

timers, particularly those from the LAC, do appear to be financially disadvantaged when compared to their full-time counterparts.

Using more sophisticated regression analyses with NSOPF 93 data and focusing on differences between men and women, Toutkoushian and Bellas (2003) found that overall part-time faculty are as satisfied as full-timers with their total income. They did find, however, that part-timers are paid significantly less for the hours that they teach at institutions than are full-timers. They conclude this inequity is a sign of exploitation on the part of institutions and is compounded given that most institutions do not offer benefits to part-timers.

Income data from NSOPF 99 demonstrate similar results. Berger and Kirshstein (2003) found that in the aggregate part-timers had total earned incomes of \$46,302 in 1998, while full-timers had total earned incomes of \$68,910. Once again, the aggregate numbers do indicate a significant difference between part-timers and full-timers, but part-timers do have respectable earned incomes. When Berger and Kirshstein (2003) disaggregate by Gappa and Leslie's (1993) disaggregation interesting differences appear. Aspiring academics have the lowest earned incomes of all part-timers (\$35,554), and they earn more than 50% of their income from academic employment at two or more institutions. Specialists, professionals, and experts earn more income on average from employment outside of academe (\$57,974) than full-timers do at their institutions (\$57,243). Specialists also have the highest total income of any group (\$71,074).

All of the income data demonstrate that there have always been differences between part-time and full-time faculty. How one chooses to interpret that data is

important. In the aggregate it appears that the differences between part-timers and full-timers in terms of total household income may be relatively unimportant (Gappa & Leslie, 1997; Toutkoushian & Bellas, 2003). On the other hand, when the data are disaggregated important differences do appear (Benjamin, 1998; Berger & Kirshstein, 2003), indicating that part-timers who are likely to rely on academe for the majority of their income earn substantially less than those who enjoy strong employment opportunities outside of academe. In terms of two-year colleges the former group would be associated with transfer programs, the later with vocational missions.

Gappa and Leslie (1997) explore the bifurcated nature of part- and full-time faculty labor. While income is a critical variable in their analysis, they also consider the other employment, if any, of part-timers and their desire for a full-time academic position. Using data from NSOPF 93 Gappa and Leslie determined that 77% of all part-timers are employed outside of their institution, and of that group two-thirds are employed full time.

As with income Benjamin (1998) finds different results when he disaggregates for the VOC and LAC and analyzes two-year colleges separately. Overall 50% of two-year part-time faculty have an additional full-time position. Benjamin does not include all two-year faculty in his clusters which might account for the difference between Gappa and Leslie's (1997) finding and his. Sixty-five percent of the members of the VOC, however, report holding a full-time job. Only 36% of the members of the LAC report holding a full-time job. Data for other part-time positions are reversed. While only 18% of the members of the VOC report holding a part-time position outside of the institution,

39% of the members of the LAC report such a position. This is an interesting result: more than three times the number of VOC part-timers hold full-time jobs outside the institution than hold part-time positions, and slightly more LAC part-timers hold part-time jobs than they do full-time jobs. Additionally, 26% of LAC part-timers hold no other employment, while only 17% of VOC part-timers hold no other employment.

Another statistic that Gappa and Leslie (1997) present is that the majority part-time faculty choose to work part-time. This is a small majority, but a majority nevertheless. Again this statistic reveals a need for disaggregating. Benjamin (1998) finds that 63% of part-timers in the LAC, compared to 38% of the VOC, teach part-time because a full-time position was not available. Therefore, part-timers in the LAC are more likely to have accepted part-time work while they preferred to have full-time employment.

When compared to the aggregate findings of Gappa and Leslie (1997), Benjamin's (1998) disaggregated results demonstrates that there are significant differences among part-time faculty in two-year colleges regarding income, the status of other employment, and the desire to find full-time academic employment. These differences are important because they identify a bifurcation among part-time faculty at community colleges. Importantly, this division is situated between a cluster of faculty that is predominantly in the transfer function of community colleges, the LAC, and a cluster of faculty that is located within the vocational training function of colleges, the VOC.

### *Faculty Satisfaction*

Studies based on data from NSOPF 93 also indicate similar differences among part-timers at two year institutions regarding their satisfaction with their positions. While Gappa and Leslie (1997) do offer aggregate data for all postsecondary faculty, Valadez and Antony (2001) analyzed data for part-timers in two-year institutions. While Valadez and Antony investigated several different areas of faculty satisfaction, this study is concerned with five particular variables: Overall satisfaction, job security, advancement opportunities, salary, and benefits. In addition to these five variables, part-time faculty responses to the question of whether they would choose an academic career again are considered. Valadez and Antony categorized the four satisfaction variables, excluding overall satisfaction, in one group they named demands and rewards. While they do disaggregate two-year part-time faculty, Valadez and Antony compare the responses of two-year part-timers to four-year part-timers, giving no indication of how two-year part-timers' satisfaction compares to that of two-year full-timers. Valadez and Antony find no difference between two-year part-timers and four year part-timers in terms of satisfaction with demands and rewards. Both groups, however, are less than somewhat satisfied with these variables. They also found that there is no difference between two-year and four-year part-timers regarding their overall satisfaction. Both groups are more than somewhat satisfied overall with their positions. Finally, Valadez and Antony found no difference between the two groups in response to the question, "If I had it to do all over again, I would still choose an academic career?" fifty-nine percent of both groups strongly agreed with this question, and 29% of both groups agreed somewhat with the question.



Benjamin (1998) did not report complete results of faculty satisfaction for the VOC and LAC, but he does indicate that overall the fields from the LAC tend to be less satisfied when compared to the VOC fields. Indicating once again that disaggregating part-time faculty is important in discerning differences inherent between fields that serve community college transfer mission and vocational mission.

Berger and Kirshstein (2003) employ Gappa and Leslie's (1993) four group disaggregation when analyzing part-time faculty satisfaction data from NSOPF 99. And, as with Benjamin (1998), they do find one significant difference. Like Valadez and Antony (2001), Berger and Kirshstein (2003) found that part-time faculty tend to be at least somewhat satisfied with their job overall, advancement opportunities, job security, salary, and benefits. They also found that when compared to full-time faculty, part-timers are less satisfied in the four demand and reward areas, and are equally satisfied with the job overall. What is particularly interesting, however, is that when Berger and Kirshstein disaggregate part-time faculty, aspiring academics are significantly less satisfied in all the areas when compared to the other three groups. In the four demands and reward categories aspiring academics are at least somewhat dissatisfied, while the other groups are at least somewhat satisfied. While aspiring academics are at least somewhat satisfied with the job overall, they are significantly less satisfied than the other groups. What is particularly remarkable is that aspiring academics are dissatisfied with each of the demand and reward variables, but they are still somewhat satisfied with their jobs overall, clearly an indication that they are dedicated to academe.

*Conclusion*

The literature in this chapter demonstrates that there are differences between full-time and part-time faculty in each of this study's three focus areas. The literature also strongly suggests that disaggregation reveals differences among different part-time groups. Taken together the evidence from Chapters 2 and 3 indicate that a consistent disaggregation employed with an analysis of NSOPF data has the potential to offer a unifying perspective on the contradictions regarding the part-time faculty in community colleges. That is, the evidence suggests that neither perspective is correct and neither is incorrect. Both exist simultaneously in community colleges.

## Chapter 4 Methods

### *Research Questions*

Given the research discussed in Chapters 2 and 3, three areas of concern arise: are part-time faculty in community colleges highly trained professionals resembling full-time faculty or are they less trained and skilled when compared to full-time faculty; to what extent does a bifurcated labor market exist between part-time and full-time faculty at community colleges; and, if there are significant differences between part-time and full-time faculty in the previous areas, are part-timers satisfied with their positions at community colleges when compared to their full-time counterparts? Contradictory evidence has been presented in past studies for each of these questions. In part, these contradictions exist because scholars have not disaggregated part-time faculty in their research. In answering these questions this study sought to incorporate the idea of New Economic labor to resolve the contradictions and to create a disaggregation based on academic discipline and non-academic employment opportunities. Therefore, one undergirding question informed the interpretation of all findings: To what extent can part-time faculty at community colleges be understood as globalized labor? That is, do the theories and suggestions of scholars about the new economy's labor force explain the contradictions found in the literature regarding the positions and situations of community college adjuncts? Each of the three general research questions was analyzed with several different variables to increase nuance and to incorporate the new economy framework.

The first contradiction—are part-time faculty in community colleges highly trained professionals resembling full-time faculty or are they less trained and skilled

when compared to full-time faculty?—is addressed in Chapter 5 and includes questions concerning three demographic variables—gender, race and ethnicity, and citizenship—and the level of faculty educational attainment. Each of these variables is used to investigate whether a difference exists between part-time and full-time faculty at community colleges, and whether differences among different groups of part-time faculty exist. The work of Benjamin (1998) suggests that there is both a difference between part-timers and full-timers and a difference among part-time clusters; therefore, the study explored each of these demographic characteristics to discover if significant differences exist for part-timers and full-timers in community colleges. If the new economy and globalization have had an effect on the use of part-time faculty these variables might have changed during the 1990's, making it important to include analysis of both the 1993 and 1999 NSOPF studies.

The second analysis chapter focused on questions stemming from the second contradiction: does the community college faculty labor market resemble a dual labor market or is there substantial bifurcation? And, were there any changes in labor market conditions during the 1990s. Gappa and Leslie (1997) indicate that while there are areas of considerable difference between the full-time and part-time labor markets in American higher education, there is insufficient evidence to suggest there is actually a dual labor market. They base this conclusion primarily on the grounds that in the aggregate there is little difference between the household incomes of part-timers and full-timers. This study sought answers to four specific questions regarding the community college faculty labor market. First, are there differences in the incomes both between part-time and full-time

faculty and among part-time faculty groups? Second, is there a difference in the professional development opportunities for part-time and full-time faculty? Third, do different groups of part-time faculty differ in their perception about whether or not the position is their primary employment? Finally, is there a difference among part-time faculty groups concerning the status and sector of outside employment?

Finally, this study explored the answer to the third contradiction: are part-time faculty more or less satisfied than their full-time counterparts and are there differences among part-time faculty groups regarding satisfaction? This area of inquiry is particularly important if there are differences between the various faculty groups concerning the first two contradictions. That is, if there are significant differences in demographics and labor market conditions, then one would reasonably expect to find differing levels of satisfaction among faculty groups and to find differences over time. Applying the model of Valadez and Antony (2001), the third analysis chapter evaluated community college faculty satisfaction in three areas incorporating six variables. The first area was satisfaction with the job overall. The second area is defined by Valadez and Antony (2001) as satisfaction with demands and rewards and includes four variables—satisfaction with job security, satisfaction with advancement opportunities, satisfaction with salary, and satisfaction with benefits. The final area of satisfaction was based on the faculty member's desire to choose an academic career again.

### *Data*

The study was a quantitative analysis of community college faculty data from both the 1993 and 1999 National Study of Postsecondary Faculty (NSOPF 93 and 99).

Initially, questions from the three major sub-areas discussed above were analyzed using NSOPF 99 data to create a picture of the current state of part-time faculty in American community colleges. After the current state of part-time faculty was established, I compared results from NSOPF 99 to those of NSOPF 93 to determine if and how faculty demographics, the existence of a dual labor market, and faculty satisfaction have changed over time.

NSOPF 99 utilized a sample of 960 institutions and 28,576 full- and part-time faculty employed at these institutions. The sample was designed to allow detailed comparisons and high levels of precision at both the institution and faculty levels. The sampled institutions represent all public and private not-for-profit Title IV-participating, degree-granting institutions in the 50 states and the District of Columbia. Both the sample of institutions and the sample of faculty were stratified, systematic samples. The institution sample was stratified by Carnegie classifications that were aggregated into fewer categories. The faculty sample was stratified by gender and race/ethnicity. Through a three stage sampling and selection process 819 of the original 960 institutions participated in the final study. Initially 28,576 faculty were selected from the participating institutions. Further sampling and selection resulted in a final sample of 19,213 eligible faculty. Of these a total of about 17,600 respondents completed the faculty questionnaire, resulting in a weighted response rate of 83.2 percent (Abraham, Steiger, Montgomery, Kuhr, Tourangeau, Montgomery, & Chattopadhyay, 2002).

Similar in purpose to the 1999 study, NSOPF 93 sampled 974 institutions and 31,354 faculty. As the result of the sampling and selection process 817 institutions

participated in the study. Of the 31,354 faculty selected the participating institutions 29,764 were determined to be eligible to participate in the study, with 25,780 (87 percent) of the target sample completing questionnaires (Selfa, Suter, Myers, Koch, Johnson, Zahs, Kuhr, & Abraham, 1997).

This study employed multiple variables from the NSOPF studies to examine each area of the research questions. Table 4-1 lists all NSOPF variables included in the study and the data codes for each from 1999 and 1993. As this study is only concerned with the community college labor market, the NSOPF datasets were cleaned to include only faculty members from two-year colleges, both private and public, who identified themselves as either full- or part-time. NSOPF 99 included responses from 4560 faculty at 269 two-year institutions; 8435 faculty from 266 institutions responded to the NSOPF 93 questionnaire. To insure consistency in the data for the study only faculty members who provided valid responses to all questions included in the study are included in the analysis. For NSOPF 99 this includes a total of 4,283 faculty—1572 full-time and 2711 part-time. For NSOPF 93 this includes a total of 8,151 faculty—3113 full-time and 5038 part-time.

Table 4-1 NSOPF Variables Included in Study

Variable Description	Variable Code in NSOPF Data Set	
	NSOPF 99	NSOPF 93
Gender	Q81	F51
Race/ethnicity	X03_84	X02f53
Citizenship Status	X03_90	X01f56
Highest Degree attained	X02_16	B16a1
Total Individual earned income	X11_76	X06e47
Income from institution	X04_76	Derived variable: X01e47 + X03e47
Other academic income	Q76D	E47g
Non-academic income	Derived variable: X09_76 – Q76D	Derived variable: X05e47+E47i-E47g
Only employed part-time at institution	X01_5	X01a4
Is institution your primary employment	Q19	NA
Other position(s) full- or part-time	X08_24	B18c
Sector of other position	X07_24	X01b18
Part-time employment preferred	X01_6	A4aa
Part-time employment only available	X01_6	A4ab
Tuition Remission Available	Q61A	C35a1
Prof Assoc membership money available	Q61B	C35a2
Professional travel money available	Q61C	C35a3
Internal training available	Q61D	C35a4
Sabbatical Available	Q61F	C35a6
Satisfaction: job overall	Q66J	D40i
Satisfaction: job security	Q66B	D40b
Satisfaction: advancement opportunities	Q66C	D40c
Satisfaction: salary	Q66G	D40f
Satisfaction: benefits	Q66H	D40g
Opinion: choose academic career again	Q92H	F59g
Number of classes taught	Q33	C22
Age	X01_82	X01f52
Number of years at institution	X01_7	X01a6



*Faculty Disaggregation*

This study disaggregates two-year faculty into seven groups based on academic program and relative employment opportunities outside of academe. While this disaggregation is based in part on the work of Benjamin (1998) discussed in Chapter 3, my intention is to add detail to the simple dichotomy of liberal arts versus vocational programs and to include as many fields as possible into the disaggregation to capture a complete picture of all part-time faculty in community colleges. As no other disaggregation had been established before this study, I corresponded with several recognized experts on the subject of community colleges and their faculty to confirm that no other disaggregation existed and to seek advice on my idea to disaggregate on the basis of labor in the new economy. These advisors, Ernest Benjamin, H. Norton Grubb, Kevin Dougherty, and John Levin, all indicated that they were aware of no such disaggregation and, in creating one, I should consider relative employment opportunities outside of colleges and the relative status of a program or field within colleges. Their most common caution was that opportunities both within and outside colleges are fluid—what might be true one year is not necessarily true the next. Given that, it is not my intention to radically change how fields are grouped, or even to completely abandon the transfer versus training tensions in community colleges. I do, however, refine groupings within transfer programs and training programs with three separate groups for transfer programs and three groups for training programs and a seventh group that has aspects in common with both areas. The seven groups are: arts and humanities; social and behavioral sciences; physical and biological sciences; computing and technology;

professional programs; trades and services; and, low status professional programs. For complete details about the specific fields included in each group see Appendix A.

The first three groups are composed of programs generally considered in academic or transfer curriculum, but there are several compelling reasons to separate the groups. First, the general literature on higher education faculty indicates that there are differences between these general categories; therefore, it is valuable to discover if there are differences between these groups in community colleges. Second, the literature on exploited part-time faculty generally portrays faculty from either the arts and humanities group (especially English faculty) or from the social and behavioral sciences, not the hard sciences. Again, I was interested in finding if these differences exist for community college faculty. These first two reasons focus primarily on academic program; the final reason is concerned with career opportunities outside of academe. Traditionally, members of the arts and humanities group have been associated with and found employment in academe. While academic employment is quite important to members of the social and behavioral sciences group, its members do have more numerous employment opportunities available outside of academe than do members of the arts and humanities. Likewise, people trained in the physical and biological sciences traditionally have had numerous employment opportunities outside of academe with government agencies and with the research and development departments of private corporations. These general trends in employment opportunities outside of the academy were intensified in some cases during the 1990s. Private companies that once would hire people trained in the arts and humanities for sales and marketing positions and for entry-level management

positions began to demand specialized degrees focused on these areas for new employees, decreasing employment opportunities for arts and humanities students. In contrast, the biotech boom and a general increase on new technologies developed in part by physical scientists in the 1990s increased the opportunities outside of academe for faculty members from the physical and biological sciences group.

The next three groups in the disaggregation—computing and technology; professional programs; and trades and services—might all be considered vocational or training programs, but each of these groups, like the three transfer program groups, experiences varying employment opportunities outside of the academy. Traditionally, people trained in the computing and technology fields were able to find employment at large corporations and government agencies, but many smaller organizations could not afford, or perhaps did not see the need for, large, complex, and expensive mainframe computers. People trained in professional programs generally experience numerous, well-paid opportunities outside of higher education. While employment opportunities in the trades and services sectors tend to ebb and flow with the general economy, employment opportunities in these areas have been numerous during the 20<sup>th</sup> century. As with the transfer function groups, opportunities for these three groups did change throughout the 1990s and, therefore, deserve to be analyzed separately. Computing and related technologies have fueled globalization and the new economy, and all enterprises, no matter their size, rely on computers. Therefore, faculty members from this group should have had numerous and well paying career opportunities outside of academe. Conversely, faculty members from the professionals group always tend to have quality

opportunities available to them which are not necessarily dependent on the new economy. The third group from training and vocational programs, trades and services, is problematical. Some of these fields are tied to globalization and the new economy, air transportation for example, while other fields, building trades, are more traditional and less associated with employment in a post-industrial society. These differing levels of connectedness to the new economy among the various fields in the group suggest there might also be significant differences in their data. Unfortunately, given the relatively small number of individual observations for fields in this group it was not possible to further disaggregate without compromising the validity of results.

Employment opportunities outside of community colleges are not the only reason to divide these three groups. As Levin (2001) has discussed, training programs at community colleges have evolved during the 1990s. While there continue to be many training programs designed to meet the needs of less demanding fields, there has been a marked increase in training and certification programs at community colleges for highly skilled and technologically based careers, with some of these programs requiring college degrees or similar training as a requirement for admission. Such programs are more represented in the computing and technology and professional groups than they are in the trades and services group. Not only outside employment opportunities separate these three groups, but also a potential hierarchy in the status of these programs within community colleges. The experiences and perceptions of faculty in these groups, then, could show differences from the aggregate.

The final group in the disaggregation, low status professional programs, has elements in common with the academic groups and with the vocational groups. Many of the fields in this group do have a long-standing place in the academy, education programs for example, and/or many employment possibilities outside of academe. The problem is that whether opportunities are available inside the academic world or in the private sector, the relative status and pay of these fields is low in comparison with other fields. There are many opportunities for people with education backgrounds in the k-12 system in the U.S., but teaching is not seen as a prestigious profession, particularly at the elementary and secondary levels. Nursing is a high demand profession in health care, but traditionally it has not only been less a prestigious area than other health care professions, it also has been a field with lower overall compensation. The fields in this final aggregation are also highly feminized, which has been linked to decreased disciplinary salaries in higher education (Bellas, 1997). Therefore, because of the hybrid nature of the fields included in this last group, I chose to combine them as a separate category to decrease the possibility that the individual fields might distort results in the other academic and vocational divisions.

### *Analysis*

All data analysis in this study was completed with the eleventh version of the Statistical Package for Social Sciences (SPSS 11.0). SPSS was used to clean the raw data and to perform statistical analysis. As noted by Thomas and Heck (2001), when employing large scale data sets such as NSOPF researchers must take steps to insure that analytical results are representative of the intended population universe. Because certain

underrepresented populations were oversampled in the NSOPF studies a sample weight variable is included in the NSOPF data. In SPSS it is possible to include these raw weights in analysis, but the raw weights have the effect of dramatically increasing the number of observations, leading to excessively small standard errors and to an increased possibility of Type I errors (concluding significance when none is present). Thomas and Heck (2001) suggest that to compensate for this problem in SPSS a researcher need only calculate the mean of the raw weight for the entire sample and then divide the raw weight for each observation by the mean weight for the sample. This “relative” weight can then be included in analysis without artificially expanding the number of observations used to calculate results, which leads to more accurate calculations and results that better reflect the population universe. As a part of my analysis I derived a relative weight for both the NSOPF 99 and 93 data and employed the SPSS weight commands incorporating the derived relative weight to ensure results that more accurately represent all community college faculty in the United States. Weighting was included in all calculations and analyses in this study.

The following three chapters will analyze data based on the three major questions rising from contradictions about part-time faculty in community colleges. In addition to results for both full- and part-time faculty from each of the seven groups discussed above, each chapter will included results for all two-year faculty, all full-time faculty, and all part-time faculty to allow clear comparisons for the seven subgroups. Chapter 5 examines demographic data of community college faculty, particularly gender, race and ethnicity, citizenship status, and highest degree attained. The focus of Chapter 6 is labor market

conditions that might be indicative of a dual labor market in community colleges, specifically individual earned income, professional development opportunities available, whether or not institutional employment is considered the primary employment, and the employment status and sector of positions outside of the college. In both chapters I am concerned with the mean value of responses by the seven group disaggregation; therefore, ANOVA is used to determine if differences exist among groups.

The final analysis chapter explores community college faculty satisfaction. The variables for this chapter come from the area described as “demands and rewards” by Valadez and Antony (2001) and include overall satisfaction, satisfaction with job security, satisfaction with advancement opportunities, satisfaction with salary, satisfaction with benefits, and a final variable based on the faculty member’s desire to choose an academic career again. The chapter does begin by comparing the means for these variables across the seven faculty groups, but extends that initial analysis with weighted least squares regressions for each variable for full- and part-time faculty as a whole, full-time faculty only, and part-time faculty only.

## Chapter 5 Data Analysis: Demographics and Educational Attainment

This is the first of three analysis chapters. It examines the demographics of community college faculty. Specifically, the chapter analyzes four characteristics: gender, race and ethnicity, citizenship status, and highest degree attained. These four areas were chosen because they are considered important in terms of labor stratification in the new economy and, with the exception of citizenship, they are central to other studies concerning faculty.

### *Gender*

Table 5-1 lists gender percentages for the study sample from NSOPF 99 and NSOPF 93, including the differences between the two samples. The aggregate data from 1999 indicate that gender parity for community college faculty is ideal with equal numbers of women and men. The aggregate data for full-time faculty show similar results with women comprising slightly more than half of the group. Results for part-timers are similar with a near even distribution of men and women. Interestingly, men comprise a higher percentage of part-time faculty than they do of full-timers. From this gross aggregate data there do not appear to be any important differences in terms of gender.

The picture changes, however, when the faculty are disaggregated into the study's seven groups. None of the groups, with the exception of the full-time professionals, approached the near even distribution of the aggregate. The differences between groups are important for two reasons. First, women are disproportionately represented in groups that have the lowest personal incomes in



Table 5-1 NSOPF 1993 and 1999 Two-year Faculty Gender by Percentage

	1993			1999			% Change
	n	Male	Female	n	Male	Female	Female
All Faculty	8151	53.2	46.8	4283	50.0	50.0	3.2
All Full-time	3113	53.2	46.8	1572	48.8	51.2	4.4
All Part-time	5038	53.2	46.8	2711	50.7	49.3	2.5
Art/Human Part-time	1285	35.5	64.5	731	40.1	59.9	-4.6
Art/Human Full-time	679	46.1	53.9	353	46.3	53.7	-0.2
Soc Sci Part-time	467	64.0	36.0	323	57.5	42.5	6.5
Soc Sci Full-time	375	68.4	31.6	161	61.7	38.3	6.7
Hard Sci Part-time	306	68.6	31.4	404	61.4	38.6	7.2
Hard Sci Full-time	254	69.8	30.2	241	62.3	37.7	7.5
Technology Part-time	408	63.9	36.1	288	56.3	43.7	7.6
Technology Full-time	227	55.1	44.9	129	40.3	59.7	14.8
Professional Part-time	920	68.6	31.4	389	57.8	42.2	10.8
Professional Full-time	453	68.4	31.6	243	50.9	49.1	17.5
Trades Part-time	994	67.5	32.5	216	78.9	21.1	-11.4
Trades Full-time	511	72.5	27.5	165	79.8	20.2	-7.3
Low Status Pro Part-time	656	22.7	77.3	360	25.1	74.9	-2.4
Low Status Pro Full-time	613	17.0	83.0	280	16.7	83.3	0.3

community colleges. Women are a majority in the arts and humanities and social and behavioral sciences part-time groups and in both categories of the low-status professionals group. These are all groups that tend to have the lowest individual incomes. Details about these income differences are presented in Chapter 6.

The second reason concerns both income and status. Men tend to be employed more as full-time faculty in areas where a full-time faculty position would be considered desirable, and they are also employed more as part-timers in areas that tend to have higher paying options outside of academe. In each of the three academic transfer groups men are more likely to be hired as a full-time instructors than they are to be hired as part-time instructors. While men are not a majority in the full-time arts and humanities group, they are 15% (six percentage points) more likely to be hired as a full-time instructor. In the other two transfer groups—social and behavioral sciences and physical and biological sciences—men are both more likely to be hired as a full-timer and comprise more 60% of both groups, with two of the groups—arts and humanities and low status professionals—well above 50% women and the remaining groups above 50% men. On the other hand, women are more likely to be hired as full-time instructors in the areas that offer more lucrative options outside of academe. Women are 37% (sixteen percentage points) more likely to be hired as a full-time instructor in the computing and technology area than they are to be hired as part-timers. They also comprise a clear majority in that area. Women are 16% (seven percentage points) more likely to be hired as full-time faculty in the professions area. Finally, women are an incredible minority in both the full- and part-time categories in the trades and services area. As will be discussed in detail in Chapter 6, non-

academic income for each of these three groups is significantly higher than the other four groups. Thus, women employed as full-time faculty in these areas could be considered at a disadvantage because they are less able to benefit from the opportunities available to them outside of academe.

Data from 1993 in Table 5-1 present similar findings. Men were more likely to be hired as full-time faculty, the desired employment status, in the three academic transfer groups and they were more likely to be hired as part-time faculty in the groups where they could earn significantly more income outside of academe. It must be noted, however, that women increased their representation in the community college faculty between 1993 and 1999, with a 3.2 point gain in the faculty as a whole, a 4.4 point gain in the full-time faculty, and a 2.5 point gain in part-time faculty. Because the largest gain for women as a whole was in the full-time faculty, it might be difficult to categorize this change as a form of discrimination, exploitation, or ghettoization of women. Instead, it appears that women made clear and strong gains in faculty representation in this period. On the other hand, it can be argued that these positive gains at community colleges might prove that faculty positions at more prestigious institutions are still not as available to women; therefore, they have had no choice but to accept positions at community colleges. Disaggregating these gains also supports this interpretation. The two areas where women made the most dramatic gains in full-time faculty representation—technology, a 33% (14.8 percentage points) increase and the professions, a 55% (17.5 percentage points) increase—are the areas that had the most prestigious and lucrative opportunities outside of community colleges. Statistics for gender, then, appear to be

more negative for women. While women did show strong increases in overall faculty representation between 1993 and 1999, it can be argued that those gains came in areas where there are much better opportunities outside of community colleges. And, in both years men were more likely than women to have the most desirable and lucrative positions, whether those positions were full-time (academic transfer areas) or part-time (vocational areas).

### *Race and Ethnicity*

Table 5-2 shows the race and ethnicity percentages for the NSOPF 99 sample and the change between 1993 and 1999. While there are subtle differences among the various aggregate groups in 1999, the overwhelming picture that comes from this table is that on the whole, no matter how they are divided, community college faculty are predominantly white. In the large aggregate groups part-time faculty have a slightly higher percentage of whites than do full-timers. But with both groups hovering near 85%, one is hard pressed to say either group is particularly diverse. The situation changes little when analyzing the seven group disaggregation. All groups are predominantly white, and in five of the seven groups part-timers comprise a higher percentage of whites than do full-timers. In the two groups where part-timers comprise a smaller percentage of whites—trades and low status professionals—the difference is minimal, 1.3 and 0.5 percentage points respectively. The only group with less than 80% of its population white is full-time social and behavioral sciences. But, while 78.6% is

Table 5-2 NSOPF 1999 Two-year Faculty Race and Ethnicity by Percentage

	1999					Percentage Change from 1993				
	White	Af-Am	Hispanic	Asian/PI	Native Am	White	Af-Am	Hispanic	Asian/PI	Native Am
All Faculty	86.1	5.7	4.7	2.5	0.9	-0.6	0.3	0.5	-0.3	0.0
All Full-time	84.9	6.4	4.6	3.4	0.8	-0.3	0.2	0.5	-0.1	-0.2
All Part-time	86.9	5.3	4.8	2.0	1.0	-0.8	0.4	0.6	-0.4	0.2
Art/Human Part-time	85.9	3.3	7.2	2.4	1.2	-1.2	0.3	0.6	0.1	0.2
Art/Human Full-time	85.5	5.5	5.2	3.6	0.2	-0.8	0.5	0.7	0.4	-0.8
Soc Sci Part-time	86.8	6.1	5.8	0.0	1.4	-1.5	-0.5	3.5	-2.2	0.9
Soc Sci Full-time	78.6	10.2	5.9	2.6	2.6	-5.8	2.8	1.3	-0.4	2.1
Hard Sci Part-time	87.1	6.7	2.6	3.0	0.5	-3.6	3.4	1.0	-1.5	0.5
Hard Sci Full-time	83.5	5.9	6.2	4.4	0.0	-2.7	2.0	3.2	-2.3	-0.3
Technology Part-time	89.9	3.5	2.9	2.6	1.0	-1.9	1.7	0.4	0.2	-0.5
Technology Full-time	89.2	4.7	3.4	1.2	1.4	-1.4	-0.6	1.4	-0.6	1.1
Professional Part-time	88.7	5.2	3.6	2.2	0.3	-1.4	0.5	1.0	0.3	-0.4
Professional Full-time	85.2	5.1	4.2	4.9	0.6	-0.7	0.5	-0.2	1.8	-1.5
Trades Part-time	87.0	5.5	3.4	1.0	3.0	-0.5	0.6	-0.7	-1.8	2.4
Trades Full-time	88.3	5.3	4.0	0.5	1.9	1.3	1.4	-0.3	-3.3	0.8
Low Status Pro Part-time	84.1	8.6	5.2	1.5	0.6	2.5	-1.8	-0.5	-0.1	-0.1
Low Status Pro Full-time	84.6	8.1	2.9	4.2	0.2	4.7	-2.9	-1.4	0.6	-0.9

less than 80%, it is hardly an important difference. What is particularly important from these numbers is that community college faculty do not mirror the population of students they serve. In 1997 64.8% of community college students were white, 11.1% were African American, 11.8% were Hispanic, 5.8% were Asian/Pacific Islanders, and 1.3% Native American/Alaskan Natives (AACC, 2000). Given these proportions for students the racial and ethnic composition of all community college faculty requires significant change if it is to approach the diverse mix of students served by colleges.

The data in Table 5-2 do indicate that there were more faculty of color in 1999 than in 1993 (for complete race and ethnicity data for 1993 see Appendix B). The improvement between the two years, while significant in some areas, is not particularly important. Faculty from the social and behavioral sciences and physical and biological sciences areas did show significant increases in persons of color between 1993 and 1999. While this does demonstrate that community colleges have increased the racial diversity in their faculties, the numbers stand much more as a testament to how far colleges need to go to develop representative racial diversity in their faculties.

### *Citizenship*

The results for citizenship status are very similar to those for race and ethnicity: no matter the grouping, community college faculty are overwhelmingly native born United States citizens. Table 5-3 displays both the citizenship status of two-year faculty from the NSOPF 99 sample and the changes from 1993 to 1999 (for complete results from 1993 see Appendix C). With only one group

Table 5-3 NSOPF 1999 Two-year Faculty Citizenship by Percentage

	1999			Percentage Change from 1993		
	Native	Naturalized	Non-Citizen	Native	Naturalized	Non-Citizen
All Faculty	92.9	5.4	1.6	0.2	0.4	-0.7
All Full-time	93.2	5.2	1.6	0.0	0.3	-0.3
All Part-time	92.8	5.6	1.7	0.4	0.5	-0.8
Art/Human Part-time	89.6	6.4	4.0	0.4	-0.9	0.5
Art/Human Full-time	91.0	6.5	2.6	-2.2	1.4	0.8
Soc Sci Part-time	95.6	3.6	0.8	3.3	-2.2	-1.1
Soc Sci Full-time	93.6	4.4	2.0	1.5	0.3	-1.7
Hard Sci Part-time	91.3	6.2	2.5	2.8	-0.3	-2.5
Hard Sci Full-time	87.0	10.4	2.6	-2.3	3.0	-0.7
Technology Part-time	92.8	6.8	0.5	-1.6	2.3	-0.5
Technology Full-time	96.1	3.7	0.2	-1.6	1.7	-0.1
Professional Part-time	94.8	4.9	0.3	0.2	2.1	-2.3
Professional Full-time	93.8	4.9	1.3	-1.3	1.2	0.0
Trades Part-time	97.3	2.7	0.0	4.7	-2.9	-1.8
Trades Full-time	99.5	0.4	0.1	7.6	-5.5	-2.1
Low Status Pro Part-time	93.2	6.5	0.3	-3.0	4.0	-1.1
Low Status Pro Full-time	95.6	3.4	1.0	2.2	-2.1	-0.1

containing less than 90% native born citizens, and that group still with more than 85%, it can certainly be concluded that the community college faculty labor force is in no danger of becoming predominantly foreign born or non-citizen.

The data from Table 5-3 demonstrate that while there were some changes in the citizenship status of two-year faculty between 1993 and 1999, those changes are relatively minor. In the large aggregate the percentage of native born full-timers did not change, and the percentage of native born part-timers increased 0.4 of a percentage point between 1993 and 1999.

*Education: Highest Degree Attained*

Unlike the results for race and citizenship, there are a number of interesting differences regarding highest degree attainment among the seven areas included in this study. Table 5-4 presents the highest degree attainment data for two-year faculty in the NSOPF 99 sample and includes the changes from NSOPF 93. As a Master's degree is the minimum requirement for full-time faculty in community colleges, it is as important to focus on the percentage of faculty with a Master's degree and above as it is to look at the percentage of faculty with terminal degrees in their fields. In each of the study's seven groups full-time faculty attained a master's degree or higher when compared to their part-time counterparts.

The total percentage of faculty who hold a master's degree or above, however, exposes a distinction between the academic transfer groups and the vocational groups. Part-timers in the three academic groups do have a sizable



Table 5-4 NSOPF 1999 Two-year Faculty Highest Degree by Percentage

	1999					Percentage Change from 1993				
	Ph.D.	Master's	Bachelor	Associate	None	Ph.D.	Master's	Bachelor	Associate	None
All Faculty	14.0	59.3	18.3	4.7	3.7	-0.9	2.3	-2.2	-1.8	2.7
All Full-time	20.2	62.1	12.9	3.0	1.8	0.9	-1.9	1.0	-1.0	1.0
All Part-time	10.3	57.7	21.5	5.7	4.8	-1.9	5.0	-4.4	-2.5	3.7
Art/Human Part-time	10.5	69.4	16.7	2.1	1.4	1.7	0.5	-2.6	-0.4	0.9
Art/Human Full-time	22.5	71.7	4.4	0.8	0.6	-0.9	-0.8	0.6	0.4	0.6
Soc Sci Part-time	17.1	75.6	6.7	0.3	0.3	-8.5	7.8	0.9	0.0	-0.2
Soc Sci Full-time	41.5	57.9	0.6	0.0	0.0	7.1	-5.9	-1.2	0.0	0.0
Hard Sci Part-time	15.8	65.9	15.1	2.3	0.8	-12.2	7.5	2.7	1.0	0.8
Hard Sci Full-time	34.1	62.2	3.3	0.4	0.0	-3.4	3.5	-0.5	0.4	0.0
Technology Part-time	4.9	46.0	29.8	9.1	10.2	0.0	10.4	-9.2	-10.0	8.7
Technology Full-time	10.3	42.1	36.6	8.4	2.6	1.5	-10.9	6.9	0.5	2.0
Professional Part-time	10.9	47.1	27.3	7.4	7.3	-9.3	10.0	-2.7	-4.4	6.4
Professional Full-time	14.5	61.1	19.1	4.1	1.3	-2.8	2.9	1.2	-1.8	0.6
Trades Part-time	4.4	18.5	26.2	25.4	25.5	-1.2	-25.1	-5.4	9.2	22.5
Trades Full-time	9.9	37.2	31.5	10.6	10.8	-2.6	-13.5	12.2	-3.0	7.0
Low Status Pro Part-time	5.2	53.2	35.9	5.4	0.3	0.1	-0.7	-0.7	1.6	-0.2
Low Status Pro Full-time	8.9	76.8	12.0	1.6	0.7	-0.2	0.3	-1.1	0.6	0.4

majority of people with Master's degrees and above, but they do not match the level of education of their full-time counterparts. They do, however, have much more formal education than the other four groups of part-timers, which at best lag behind the academic part-timers by 21 percentage points in terms of advanced degrees. In fact, full-timers in the Technology and Computing, the Professions, and the Trades groups all have fewer advanced degrees than do part-timers in the academic groups. In 1999 then it is possible to say that the academic transfer groups have attained more formal education than the other four groups. There are several possible explanations for this. First, advanced degrees are required for people who desire to have an academic career; therefore, it is reasonable that a high percentage of people in the academic groups, both full-time and part-time, would have achieved this level of education. In the other groups a bachelor's degree, or perhaps even a two-year degree, would be enough education for people employed outside of higher education institutions in those fields; again, it is reasonable to assume that fewer of the people in these groups would have acquired an advanced degree. Labor supply and demand can also play a role. By most accounts there is not a scarcity of people with master's degrees and above in the three academic groups. Given that, it is reasonable to assume that community colleges, particularly those in urban and suburban locations, are able to demand that faculty possess advanced degrees without seriously decreasing their potential labor pools. There may be a scarcity, however, in advanced degrees for the other groups. In that case it would not be possible for colleges to demand advanced degrees for faculty in these groups without affecting their labor supplies. It also is possible to argue that advanced degrees may not be required in these four groups for a

person to demonstrate mastery of their field, making advanced degrees less important. This explanation is supported by the relatively high percentage of members from the computing and trades groups that possess less than a bachelor's degree.

Level of education in 1993 is similar to 1999 with two striking exceptions (for complete results from 1993 see Appendix D). The two changes that are most compelling regard the change in the level of education in the Computing and Technology and the Trades groups. While the percentages for the other five groups remained relatively stable, the percentages in these two groups changed dramatically, with the gap between part-timers and full-timers in the Computing and Technology group closing considerably between 1993 and 1999 and the level of education for all faculty in the Trades group falling precipitously during the period. In 1993 full-time faculty in the Computing and Technology group held 50% more advanced degrees than did part-time faculty, 61.8% and 40.5% holding advanced degrees respectively. But this gap is nearly eliminated in 1999, with part-timers within 2 percentage points of full-timers. This change came because of a 10 percentage point increase for part-time faculty and a similar decrease for full-time faculty. The percentage of both full- and part-time faculty in the trades group possessing advanced degrees fell considerably between 1993 and 1999. The largest decrease came for part-timers, with a more than 50% drop in advanced degrees. While full-time faculty did not experience quite as dramatic a drop, advanced degree attainment did drop by about 25%.

The similarities and differences between the two samples support the discussion about the differences in degree attainment above. Faculty in the three academic transfer

groups would still be expected to have attained more advanced degrees because those degrees were required for entry into academic careers, while faculty from the other four groups did not necessarily require advanced degrees for employment in their fields. The general national economy in the period can help to explain the changes to the Computing and Technology and the Trades groups. During the dot com boom of the 1990s it is reasonable to assume that those full-time faculty members in the computing and technology group would have had considerable opportunity to leave colleges and earn more in the private sector as demand for their skills increased. At the same time, many people sought to acquire advanced degrees and training in these fields, which could have increased the overall level of education for people seeking and/or accepting part-time employment in two-year schools. The opportunities for members of the Trades group would have also been robust during this period. Because advanced degrees are not necessarily required for these positions and they are relatively well-paid—particularly during periods of growth—it is reasonable to assume that faculty members from both the full-time and, especially, the part-time ranks would have sought employment in the private sector.

### *Conclusion*

Results from the chapter indicate several important demographic differences in community college faculty. Furthermore, the results support the need to disaggregate faculty groups. In the aggregate it appears that women have equal representation when compared to men in both full-time and part-time faculty positions at community colleges. When faculty are disaggregated equality in numbers does not equate with equality in

opportunities and income. Men are more likely to be hired as full-time faculty in areas where full-time positions are preferred, academic transfer areas, and, women are more likely to be hired in full-time positions where opportunities outside of community colleges are more lucrative, computing and technology and professional areas.

Community college faculty in all areas do not mirror the racial and ethnic composition of their students. As a whole, faculty are significantly less likely to be members of an underrepresented racial group when compared to the students they serve. Educational attainment indicates significant differences both between full-time and part-time groups and between academic transfer areas and vocational areas. Part-time faculty, both in the aggregate and in the seven groups, have attained fewer advanced degrees than their full-time counterparts. Part-time faculty from the academic groups, however, possess a higher percentage of advanced degrees than full-time faculty in the three groups associated with vocational training and workforce development.

The results from this chapter appear to be mixed in terms of part-time faculty as representing a globalized labor force. Scholars (Carnoy, 2000; Osterman, Kochan, Locke, & Piore, 2001) have suggested that temporary labor forces in the new economy have higher percentages of females, more racial minorities and foreign-born workers, and less academic attainment than permanent workforces. The results clearly indicate that part-time faculty in American community colleges are not comprised of higher percentages of racial minorities or foreign-born non-citizens. While men comprise a slight majority of part-time faculty in the aggregate, they appear to have more desirable and lucrative positions than do women. That is, women do appear to be disadvantaged in their

employment at community colleges when compared to men. Educational attainment is a different matter. Part-time faculty have acquired less formal education than have full-time faculty, but part-timers from academic transfer fields did attain a higher percentage of advanced degrees than did members, both full-time and part-time, of the vocational areas. Rhoades and Marginson's (2002) concept of "glonacal" is important for interpreting these mixed findings. Community Colleges respond at the local level to demands and influences from both the national and global sectors. Because of this local response, community college part-time faculty more closely resemble their full-time counterparts than other international globalized labor forces because all faculty are drawn from the same general geographic area. The following two chapters will show significant differences between part-timers and full-timers that are not as dependent on local similarities.

## Chapter 6 Data Analysis: Labor Market Conditions

In this the second of three analysis chapters several labor market factors are analyzed, including income—total earned income, institution income, other academic income, and non-academic income; professional development opportunities; part-time faculty perceptions of their employment at the study institutions; and, the nature of part-timers' outside employment—full-time or part-time and the sector where employed. The data for part-time faculty in the first two sections of the chapter will be compared to that of full-time faculty to determine the nature and degree of differences between part-timers and full-timers as well as the differences among the part-time groups concerning income and professional development opportunities. Gappa and Leslie (1997) indicate that while there are differences between part-time and full-time faculty in the areas of income and professional development opportunities, those differences would not be enough to indicate a dual labor market in academe. As discussed in Chapter 4 Gappa and Leslie (1997) do not disaggregate the data from NSOPF 93, analyzing their questions in terms of part-time faculty as a single group. Beyond that, in the course of this research I have discovered data problems for income from NSOPF 1993 that can significantly affect income results. I will discuss these data problems in detail in the income section. The final two sections of the chapter will focus only on data for part-time faculty as the responses of full-time faculty are either non-existent or unimportant in determining the differences among part-time faculty. These two factors are included to create a more nuanced exploration of the part-time labor market in two-year institutions.

*Income*

Before examining the income data I need to discuss the problems I encountered with the income data—particularly with NSOPF 93, and the steps I took to derive income variables as similar as possible for the comparisons between 1999 and 1993. While the data categories are nearly identical for the two studies, there was one major difference between them that caused some dramatic variations in the results for the two studies. Data in a number of the income categories in 1999 were topcoded to limit the highest allowed value. There was no such topcoding for the 1993 data. Topcoding has no impact on median values for income data; but, because it decreases the impact of outlying high income numbers, topcoding can have a significant effect on the mean, or average, income results. These effects were particularly important on the mean income results for part-time faculty for two reasons. First, part-time faculty have a wider range of incomes in general when compared to full-timers. Given this increased variance, outliers had the potential to distort mean income numbers. The second factor is related to the first. Several of the part-time faculty outliers in 1993 reported institutional incomes of more than \$1,000,000. When one of these outliers was included in its disaggregated group, it would significantly increase the mean income of the entire group. By contacting specialists at the National Center for Educational Statistics I was able to determine the income variables that were topcoded in 1999, which allowed me to perform the same topcoding on the 1993 income variables.

As the topcoding meant I would have to derive new income variables from the 1993 data, I also used this as an opportunity to create income categories as closely related



to those of 1999 as possible. Because the income categories were slightly different between 1999 and 1993, I derived new income categories for the raw data from 1993 to have the categories match those of 1999. The final step in the conversion of the 1993 data was to control for inflation, putting the income numbers from the fall of 1992 in terms of fall 1998 dollars. These transformations have created, as nearly as possible, income variables that can be meaningfully compared for the two years. All 1993 income data presented in the chapter is based on these transformations.

The four income variables included in this chapter are different from variables employed by Benjamin (1998), Toutkoushian and Bellas (2003), and Gappa and Leslie (1997). As this study is concerned with the relative employment opportunities outside of academe of each part-time faculty group, I incorporate individual income variables for other postsecondary (academic) income, and other non-academic income. These two variables along with the two variables most usually employed in other studies—institutional income and total earned income—make up the four income variables for the study.

Table 6-1 displays a comparison of two-year faculty mean total earned income from 1999 and 1993. Tables containing both the mean income and standard deviation for all income variables are available in Appendix E.

Table 6-1 Two-year Faculty Individual Earned Income Comparisons 1999 and 1993

		NSOPF 1999		NSOPF 1993	
		Total Income	Ratio	Total Income	Ratio
All					
	Part-time	\$40,226	.745	\$39,838	.734
	Full-time	\$53,989		\$54,267	
Arts & Humanities					
	Part-time	\$31,986	.613	\$33,342	.642
	Full-time	\$52,168		\$51,972	
Social Science					
	Part-time	\$44,891	.767	\$40,670	.701
	Full-time	\$58,504		\$57,993	
Hard Sciences					
	Part-time	\$41,775	.768	\$36,894	.661
	Full-time	\$54,401		\$55,812	
Computer/Tech					
	Part-time	\$43,729	.788	\$47,152	.888
	Full-time	\$55,521		\$53,077	
Professions					
	Part-time	\$50,599	.910	\$49,890	.858
	Full-time	\$55,587		\$58,143	
Trades					
	Part-time	\$45,473	.836	\$40,796	.753
	Full-time	\$54,408		\$54,202	
Low Status Pro					
	Part-time	\$33,901	.665	\$33,236	.645
	Full-time	\$50,989		\$51,518	

Table 6-1 includes the income for part- and full-time faculty as aggregate groups as a standard for comparison for each of the seven groups and to show how using only the aggregate number can be problematical.

In the aggregate total individual earned income appears to have changed little between 1993 and 1999. In both years part-timers earned about three fourths as much as full-timers with part-timers earning \$40,000 and full-timers earning \$54,000. These aggregate data suggest that while there is a significant difference between the part-timers

and full-timers, part-timers do have respectable earnings. This is precisely the case made by Gappa and Leslie (1997). The picture presented by the disaggregated data reveals some clear differences, however. Part-time faculty in the Arts and Humanities group only earn four-fifths of the average of all part-time faculty. Full-time faculty from the same group earn 96% of the average of all faculty, creating a larger disparity in this group with part-timers earning only 61% of their full-time counterparts. This disparity increased from 1993 when Arts and Humanities part-timers earned not only more dollars, but also a higher percentage of the income of full-timers.

At the other end of the spectrum, part-time faculty from the professional area earn nine-tenths as much as full-timers in the group. With earnings of \$50,000 part-time professionals not only earn 25% more than the average part-time faculty member, but as a group they nearly match the income of full-time faculty in the low status professions group. Furthermore, part-timers from the professional group improved their earnings relative to full-timers between 1993 and 1999.

These two extreme cases demonstrate the general trend of the total earned income data. The three academic groups—arts and humanities, social and behavioral sciences, and physical and biological sciences—tend to earn less than the average of all part-timers. This difference is directly tied to the relatively high average incomes of the three vocationally oriented groups. While the social and behavioral sciences and the physical and biological sciences groups did earn more money in 1999 they still lagged behind the vocational groups. In the case of the social and behavioral sciences group, their mean income is inflated by two particular fields: psychology and economics. When I conceived

of the 7 groups for this study these two fields presented a problem—should they be considered academic because of their traditional ties to academe or should they be categorized as professional because of the employment opportunities available to them outside the academy? If the data for the group are recalculated without these two fields, the difference in mean incomes was important. Without members from psychology and economics, the mean income of part-timers in this group drops to \$39,143—a difference of more than \$5700, while it decreases only \$1400 to \$57,120 for full-timers. With those changes in mean income part-timers from this group only earn 68.5% as much as full-timers, dropping well below the ratio of all part-timers compared to full-timers.

The Computing and Technology group shows an important decrease in income between 1993 and 1999. One possible explanation for this decrease could be linked to the increasing importance and demand for such expertise in the private sector during the period. With the possibility of increased income outside of colleges more highly skilled members of the part-timers from this group may have left colleges during this period. The drop in part-time faculty in this group possessing advanced degrees discussed in Chapter 5 is further evidence that this group suffered a brain drain during the period. Interestingly, even with this drop, mean income for part-timers in this group continued to remain above the average of all part-timers, leaving them relatively privileged in terms of income, particularly considering the lower level of educational attainment for the group. That is, someone with relatively moderate education in this group was able to earn more income than members of the academic groups.

The data for mean total earned income demonstrate important results themselves. While the overall aggregate incomes for part- and full-time faculty are significantly different, they appear to be reasonably close to one another, a point supported by Gappa and Leslie (1997). But, when community college faculty are disaggregated, a different picture appears. Part-timers from the three academic groups earn less than the average of all part-timers and earn proportionally less when compared to full-time faculty in their groups. Conversely, part-time faculty from the three vocational groups on average earn more than all part-timers and earn a higher proportion of income when compared to full-time faculty. The two most striking exceptions to this general trend help to support the hypothesis that the strength of employment opportunities outside of colleges improves the position of part-timers within colleges. The apparent advantage for part-timers in the social and behavioral sciences group disappears when the two fields that have strong opportunities outside of an academic setting, psychology and economics, are removed. On the other hand, the vocational group that experienced the largest decrease in income, computing and technology part-timers, still retained income above average for two-year part-timers, which is particularly remarkable considering this faculty group also experienced by far the largest drop in academic credentials in the same period. Given these general trends in the data for total earned income, the three variables that combine to create total earned income were analyzed next.

Table 6-2 presents the mean income results for each of the four income variables from 1999 and compares them to the results from 1993. Median incomes also are central to this discussion; tables containing median income data can be found in Appendix F.

The three variables used to compute total earned income are institutional income—the total income earned at the college in the NSOPF study, other academic income—income earned at any other higher education institution, and non-academic income—any income earned outside of higher education institutions. The assumption made about these variables is that part-time faculty from the three academically oriented groups earn a larger portion of their total incomes from academic sources, both at the home institution and other institutions, than do part-time faculty from the three vocationally oriented groups. These data then present more nuanced information about where part-time faculty earn their incomes than a gross indicator such as total earned income is capable of providing.

Full-time faculty at two-year institutions earn the overwhelming majority of their income at their home institutions. The earnings of the seven full-time groups show considerably less variation with only \$7500 (15%) separating the highest group from the lowest in terms of total income and only \$6300 (14%) separating the highest and lowest groups in the institutional income category. No full-time group earns a large percentage of their total income from other academic employment. The final income variable, non-academic income, does show an interesting result for full-time faculty: the three

Table 6-2 1993 and 1999 Two-year Faculty Mean Income Comparisons

	Total Income			Institution Income			Other Academic Inc.			Non-academic Inc.		
	1993	1999	Change	1993	1999	Change	1993	1999	Change	1993	1999	Change
All Faculty	45,348	45,279	-69	24,982	24,331	-651	5,202	5,172	-30	15,163	15,775	612
All Full-time Faculty	54,267	53,989	-278	48,738	48,528	-210	639	631	-8	4,889	4,829	-60
All Part-time Faculty	39,838	40,226	388	10,305	10,295	-10	8,021	7,805	-216	21,510	22,125	615
Art/Human Part-time	33,342	31,986	-1,356	12,879	10,463	-2,416	9,322	8,465	-857	11,140	13,058	1,918
Art/Human Full-time	51,972	52,168	196	48,190	48,452	262	523	433	-90	3,258	3,281	23
Soc Sci Part-time	40,670	44,891	4,221	11,120	11,699	579	7,940	7,046	-894	21,608	26,145	4,537
Soc Sci Full-time	57,993	58,504	511	52,337	52,483	146	415	1,398	983	5,240	4,621	-619
Hard Sci Part-time	36,894	41,775	4,881	9,738	9,410	-328	11,189	15,034	3,845	15,966	17,331	1,365
Hard Sci Full-time	55,812	54,401	-1,411	51,725	50,297	-1,428	1,045	1,006	-39	3,041	3,097	56
Technology Part-time	47,152	43,729	-3,423	8,259	9,174	915	6,010	4,125	-1,885	32,882	30,429	-2,453
Technology Full-time	53,077	55,521	2,444	46,816	46,180	-636	554	404	-150	5,706	8,936	3,230
Professional Part-time	49,890	50,599	709	8,152	9,638	1,486	4,252	3,944	-308	37,485	37,016	-469
Professional Full-time	58,143	55,587	-2,556	49,652	47,603	-2,049	712	553	-159	7,778	7,430	-348
Trades Part-time	40,796	45,473	4,677	8,748	11,492	2,744	9,054	4,288	-4,766	22,994	29,692	6,698
Trades Full-time	54,202	54,408	206	47,423	46,380	-1,043	623	277	-346	6,154	7,750	1,596
Low Status Pro Part-time	33,236	33,901	665	11,604	10,575	-1,029	9,027	8,245	-782	12,604	15,080	2,476
Low Status Pro Full-time	51,518	50,989	-529	47,034	47,979	945	725	500	-225	3,758	2,509	-1,249

groups from the vocationally oriented areas earn on average at least \$2800 more per-year in this category. That number increases to over \$4000 if faculty from psychology and economics are excluded from the social and behavioral sciences group as discussed earlier. This disparity once again displays either increased opportunities for vocationally oriented faculty outside of academe, and/or an increased willingness on their part to seek additional income outside of the academy.

Income data for part-time faculty in 1999 demonstrate more differences. The results for institutional income show the least amount of variation with only a \$2500 difference between the highest and lowest groups. It is worth noting that \$2500 does represent approximately a 25% difference in institutional income compared to only a 14% difference for full-time faculty. There are two points that indicate that the three academic groups do earn more institutional income than the three vocational groups. First, two of the three academic groups have means higher than the average for all part-timers, while two of the three vocational groups have means below the average for all part-timers. Median income (see Appendix F) also contributes to this part of the analysis. In keeping with income data for the United States as a whole, the median income for each group is lower than the mean, indicating that earners at the high end of the income scale artificially inflate the means. This is clearly the case for each of the seven groups in each of the income categories. What is interesting for institutional income is that the difference between means and medians for the three academic groups tend to be smaller than those of the vocational groups, which indicates that the average income and the income of the person at the middle of the academic groups are more similar than those for the



vocational groups. The social and behavioral sciences group is once again the exception here. If the fields of psychology and economics are removed from the group its mean remains above average (\$10,689) and its median also increases (\$8100). Thus, for the first income variable it can be argued that the academic groups do tend to earn more than the vocational groups.

The second income variable measures income from other academic institutions. Here the differences between the groups become more pronounced. The difference between the highest and lowest groups is over \$11,300, a variance of 145% compared to the mean for all part-time faculty in the category. The means for two of the three academic groups are above the aggregate average. The social and behavioral sciences group is the exception. Its mean is only \$800 below the overall mean and is still considerably higher than the means for the three vocational groups. By excluding members of psychology and economics the mean for the group increases to \$8753, well above the aggregate mean. With a value of 0, the median income for all groups indicates that more than 50% of the members of each of the groups earn no income in this category. The findings indicate that the academic groups earn more income than the vocational groups for this variable.

The non-academic income data reinforce the results from the academic income variables. In the non-academic income category the vocationally oriented groups have means that far surpass the overall mean for part-time faculty. In addition, the median income for each of these three groups while lower than the mean is much closer to it, indicating that a small number of very high earners are not skewing the mean results. The

picture is quite different for the three academic groups. The arts and humanities and the physical and biological sciences groups have mean incomes well below the aggregate mean, and they also have medians that are nowhere near the value of the means, indicating that a relatively small number of high income earners are skewing the mean results upward for these groups. As with the other income variables it is important to analyze the non-academic variable for the social and behavioral sciences group both with and without the fields of psychology and economics. When these two fields are included the mean income for the group is above the aggregate mean, but is still lower than any of the vocational groups. The median income for the group, while substantial at more than \$13,000, is half of the mean, indicating that earners on the high end of the scale are forcing the mean upward. When members of the psychology and economics field are removed from the group these income figures drop considerably. The new mean income, \$19,699, falls below the aggregate mean for all part-timers, and the median income, \$5000, indicates that high earners are responsible for a large portion of the groups mean income.

Taken together, these three income variables clearly illuminate the differences in total earned income. Members of the three vocationally oriented groups earn significantly more income than do members of the three academic groups. The source of the majority of the income earned by the vocational groups is work conducted outside of an academic setting. In fact, members of the part-time faculty from the professions group earn more non-academic income than part-time faculty from the arts and humanities and the low status professional groups earn from all sources. The three academic groups earn much

more of their total income from academic sources, with an important reliance on non-academic income. Given the large gap between the mean and median incomes for these groups, it is reasonable to assume that the highest earners from the category do rely on non-academic income as a large portion of their income, while those in the 50<sup>th</sup> percentile and below rely much less on such income. Simply put, groups from the academic related groups rely on academic employment for their livelihoods, while members of the vocational groups supplement their incomes with academic work. As part-timers in the academic groups earn significantly less than full-timers in the same group, and these same part-timers rely on academic income for the majority of their livelihoods, it is plausible to assume that a dual labor market may exist in terms of income for these three groups, and possibly for the low status professional group as well. The three vocational groups, conversely, earn more proportionally when compared to full-time faculty and earn a majority of their income outside of academe. A dual labor market in terms of income may not be a reality for these groups.

How, then, do these results compare to income in 1993? The data from Table 8-2 indicate that generally the results are similar to 1999. Part-time faculty in the three academic groups earned less overall and relied on academic income as a major portion of their total income when compared to part-time faculty from the three vocational groups. Part-timers in the vocational groups earned a substantial amount of their income from employment outside of academe. As with 1999, part-time faculty from the professions group earned more income from non-academic employment on average than part-time

faculty from the arts and humanities and the low status professional groups earned from all sources. There are several changes, however, that should be discussed.

The aggregate mean for institutional income remained almost identical between 1993 and 1999, \$10,305 and \$10,295 respectively, for part-time faculty, but the separate groups all show fairly large changes in this category between the two studies. The three academic groups tend to have higher institutional income in 1993 when compared to 1999, while members of the three vocational groups realized an increase in income from 1993 to 1999. From the three academic groups the mean for members of the arts and humanities showed the largest decrease, more than \$2400 from 1993 to 1999. The social and behavioral sciences group showed a \$600 decrease between the two years, but members of the physical and biological sciences group experienced an increase of \$300 for the period. Part-time faculty from each of the three vocational groups experienced an increase in their mean institutional income between 1993 and 1999, with a \$300, \$1500, and \$2700 increase for the computing and technology, the professions, and the trades groups respectively. The median numbers for institutional income (see Appendix F) also show an interesting change. The median income for all groups is lower in 1993 than in 1999, which suggests that mean incomes for the part-time groups are inflated by outliers more in 1993 than in 1999.

The part-time group that shows the greatest changes between 1993 and 1999 is the trades group. The mean total income increased more than 11% in the period for part-timers from the trades group, the largest change in total income for any group. This increase was also accompanied by a significant shift in income for the three income

categories. As mentioned above, part-timers from this group increased their mean institutional income by \$2700 from 1993 to 1999, but during the same period their mean income from other academic institutions decreased more than \$4700, resulting in a net loss of more than \$2000 in academic income. The mean for non-academic income increased by almost 30% from 1993 to 1999, and the median value for non-academic income changed even more dramatically. In 1993 the median non-academic income for part-timers in the trades group was \$6134, while the mean was nearly \$23,000, indicating that the mean was inflated considerably by outliers. In 1999 the mean for non-academic income increased to almost \$30,000, and, more importantly, the median income increased to \$28,000, indicating that outliers were having much less of an effect on the mean numbers. Hence, the increase in mean total income for part-time faculty in the trades group was achieved by decreasing academic income and substantially increasing non-academic income. The general economy in the United States suggests one possible explanation for these changes. The U.S. was in the midst of a severe recession in the fall of 1992 and was near the peak of a tremendous expansion in the fall of 1998. For 1992, it is reasonable to assume that there were few opportunities for employment in the private sector for members of the trades group, forcing them to seek as much income as possible from academic sources. In 1998, however, opportunities were abundant outside of academe, and part-timers from the trades group were clearly capitalizing on those non-academic opportunities.

Income data from 1993 reinforce the findings from 1999. While there are differences among the individual academic groups and differences among the individual

vocational groups, the differences between the two general groups are more important. In both years part-time faculty from the academic groups earn significantly less on average than do part-time members of the vocational groups. Academic part-timers also rely upon academic income more than the vocational groups who also earn much more of their income from non-academic sources. Part-timers from the academic groups also earn proportionately less when compared to their full-time counterparts than do part-timers from the vocational groups.

#### *Professional Development Opportunities*

The availability of professional development opportunities reveals a major disparity between part- and full-time faculty at two-year institutions in the United States.

Table 6-3 summarizes the availability of five different types

**Table 6-3 Two-year Faculty Professional Development Availability Comparison**

	NSOPF 1999		NSOPF 1993	
	Part-time	Full-time	Part-time	Full-time
Tuition Remission	22.2%	58.2%	33.4%	63.7%
Professional association Fees	17.4%	53.2%	20.4%	46.5%
Professional Travel	23.1%	84.3%	27.2%	77.8%
Internal Training	24.3%	71.8%	36.4%	62.9%
Sabbatical	8.3%	41.8%	14.6%	53.6%

of professional development for 1999 and 1993. In both years professional development opportunities were available to full-time faculty at a rate at least twice as great as that for part-time faculty. The data also indicate that, on average, support increased for full-timers

and decreased for part-timers from 1993 to 1999. This disparity is particularly important because community colleges are teaching institutions where quality of instruction is sacrosanct (Cohen & Brawer, 1996). To deny the opportunity for professional development to such a large percentage of faculty could have a negative impact on the quality of instruction at community colleges. In 1993 the professional development category with the highest availability to part-timers was internal training with 36% of part-time faculty indicating that they received or were available to receive internal training. With availability to only 14.6% of part-timers, sabbatical leave was the area of professional development available least to part-time faculty. In striking contrast, the lowest category for full-timers was professional association fees, available to 47% of full-time faculty. Even at 47%, this represented more support than the highest category for part-timers. The highest percentage (78) of support for full-time faculty in 1993 was for professional travel funds.

In 1999 support for full-time faculty members increased in three of the five categories, while it decreased in all five of the categories for part-timers. Internal training was again the category of development available to the most part-timers (24%) and sabbatical leave was the lowest (8%). Sabbatical leave was also the lowest category of support for full-timers, but, as with 1993, this lowest amount of support (42%) was higher than the highest category for part-timers. Full-timers, again, had the most support for professional travel (84%).

The aggregate differences are so striking in this area that a discussion of the variations between the seven disaggregated groups is not particularly instructive.

Complete tables listing the availability of the professional development areas for each of the seven groups are available in Appendix G. The disaggregated data do show differences among the groups, and some of those differences are statistically significant. More than likely, however, those differences are not particularly important. Generally, the results for each group are similar to the aggregate data in the sense that part-timers never approach the level of support that full-timers enjoy no matter the group. The important difference here is between all full-time and all part-time faculty: in terms of professional development, all part-timers are clearly disadvantaged, a situation that worsened between 1993 and 1999. What is particularly ironic with this finding is that during the same period scholars (Gappa & Leslie, 1993; Roueche, Roueche, & Milliron, 1995; Leslie, 1998) continually expounded the importance of increased professional support for part-time faculty.

#### *College Employment Perceptions*

The first two sections of the chapter have displayed differences between full-time and part-time faculty in terms of income and professional development opportunities. Beyond these aggregate differences, there were important differences among the various part-time groups in all four income categories. The final two sections focus entirely on part-time faculty, first by analyzing part-time faculty perceptions of their employment at the study institution, and then by exploring the status and sector of part-time faculty employed outside of the study institution.

Table 6-4 displays the data for part-time faculty regarding whether or not the study institution is their primary (in 1999), or only (in 1993) employment. The table also



shows the reason part-timers are employed part-time at the study institution. As with the income data, there is a distinct difference between the members of the three academic groups and the members of the three vocational groups. When asked if the study institution was their primary employer, all three academic groups answered affirmatively (“yes”) in numbers higher than the vocational groups. Members of the arts and humanities group had the highest affirmative response rate to this question with 40.6% answering that the institution was their primary employer. When asked why they were employed part-time at the study institution, faculty members were given four response options: “I prefer part-time employment”; “No full-time employment was available”; “I both preferred part-time employment and no full-time was available”; and “other.” Results for the first two responses are included in the table as these are the two responses that demonstrate a clear preference for part-time or full-time employment. In 1999 members of each of the three academic groups indicated that they preferred part-time employment at a rate lower than the aggregate average, while two of the three vocational groups—computing and technology and trades—indicated a preference for part-time employment well above the aggregate average. In keeping with those results, members of two of the three academic groups—arts and humanities and social and behavioral sciences—indicated that they would prefer full-time employment at the institution at rates higher than the aggregate average, while two of the three vocational groups—computing and technology and trades—expressed a preference for full-time employment at the institution at levels well below the aggregate average.

Table 6-4 Two-year Part-time Faculty Perceptions of Institutional Employment by Percentage

NSOPF 1999

	n	Institution Primary Employer?		Why Employed Part-time?	
		Yes	No	Preferred	Only Available
All Part-time	2711	29.7	70.3	36.5	25.3
Arts/Humanities	731	40.6	59.4	31.0	35.7
Social Science	323	29.0	71.0	32.0	31.6
Hard Science	404	26.4	73.6	35.0	20.6
Comp/Tech	288	22.9	77.1	43.3	16.1
Professional	389	18.9	81.1	32.4	26.1
Trades	216	15.8	84.2	52.4	11.7
Low Status Pro	360	37.6	62.4	42.7	18.4

NSOPF 1993

	n	Institution Only Employer?		Why Employed Part-time?	
		Yes	No	Preferred	Only Available
All Part-time	5038	21.8	78.2	49.3	47.2
Arts/Humanities	1285	27.2	72.8	39.4	58.6
Social Science	467	22.3	77.7	39.9	56.6
Hard Science	306	20.5	79.5	39.6	56.7
Comp/Tech	408	10.2	89.8	64.2	35.2
Professional	920	13.7	86.3	56.1	36.1
Trades	994	21.0	79.0	52.5	44.8
Low Status Pro	656	31.4	68.6	56.1	40.5

The survey questions in 1993 were slightly different than in 1999. In 1993 faculty were asked if part-time employment at the institution was their only, not primary, employment. Even with this difference in wording, members of the arts and humanities and social and behavioral sciences groups were employed only part-time at the institution at rates higher than the aggregate average, and members of all three of the vocational groups indicated that they were employed only part-time at the study institution at rates lower than the aggregate average.

In 1993 the survey included multiple questions about part-time employment, and participants were required to answer “yes” or “no” to each question. That is, participants answered if they preferred part-time employment and also answered if they preferred full-time employment but none was available. Because of this difference in wording the response rates for this question are different in 1993, but they do demonstrate the same trends as 1999. In 1993 members of each of the three academic groups indicated a preference for part-time employment below the aggregate average, while members of each of the three vocational groups indicated a preference for part-time employment above the aggregate average. Members of the academic groups also indicated a preference for full-time employment at the study institution at a rate higher than the aggregate. Once again, part-time members of the vocational groups indicated a preference for full-time employment at the study institution at rates below the aggregate average.

Taken as a whole table 6-4 indicates that members of the academic groups, particularly those in the arts and humanities and the social and behavioral sciences, view

the study institution as their primary employment and would prefer to be employed full-time at the institution at rates much higher than members of the three vocational groups. The final section of the chapter indicates that employment outside of the study institution is also different for the part-time groups.

### *Outside Employment*

Table 6-5 displays the status—full-time or part-time—and the sector of employment outside of the study institution for all part-time faculty. As with the data from the last section, the sector of employment options were slightly different for the two surveys. In 1993 participants could indicate self-employed/consulting as a valid response to employment sector. This response was not available in 1999, thus any participant indicating self-employed/consulting in 1993 was added to the “other” category, which has artificially inflated this category in the 1993 table data. As the “other” category does little to explain the nature of a faculty member’s employment, the analysis highlights the first three sectors included in the survey: postsecondary employment; hospital, foundation, or government employment; and for-profit business employment.

As with Table 6-4, Table 6-5 shows a significant difference in both the status and sector of other employment for members of this study’s disaggregated groups. In 1999 members of the three academic groups worked part-time in positions outside of the study institution in rates higher than the aggregate average, while those from the vocational groups worked full-time in positions outside of the study institutions at a rate higher than the aggregate average.

Table 6-5 Two-year Part-time Faculty Other Employment Status and Sector by Percentage

NSOPF 1999

	n	Employment Status		Employment Sector			
		Full-time	Part-time	Postsecondary	Hosp/Found/Gov't	For-profit Business	Other
All Part-time	936	37.7	62.3	63.8	11.5	12.5	12.2
Arts/Humanities	272	30.3	69.7	77.1	5.4	4.3	13.2
Social Science	115	27.7	72.3	69.1	9.4	5.7	15.8
Hard Science	142	31.7	68.3	71.5	5.6	4.2	18.8
Comp/Tech	105	48.8	51.2	47.6	17.4	30.9	4.2
Professional	136	54.5	45.5	45.4	21.3	23.5	9.9
Trades	56	39.8	60.2	42.6	21.8	31.1	4.5
Low Status Pro	109	41.8	58.2	64.5	13.6	9.8	12.1

NSOPF 1993

	n	Employment Status		Employment Sector			
		Full-time	Part-time	Postsecondary	Hosp/Found/Gov't	For-profit Business	Other
All Part-time	3940	66.5	33.5	17.4	22.7	16.1	43.8
Arts/Humanities	936	49.9	50.1	26.9	10.6	12.8	49.7
Social Science	363	61.1	38.9	28.7	26.8	7.7	36.8
Hard Science	243	54.9	45.1	30.8	19.1	6.7	43.4
Comp/Tech	367	78.0	22.0	5.4	29.0	25.0	40.5
Professional	795	85.0	15.0	6.7	28.9	26.4	37.9
Trades	786	71.3	28.7	15.6	22.8	18.2	43.5
Low Status Pro	450	61.3	38.7	13.1	30.1	5.9	50.9

Members of the vocational groups also worked in the non-postsecondary education sectors at a higher rate than the aggregate average in 1999, and their counterparts in the academic groups worked in the postsecondary sector at rates higher than the aggregate average. The same trends are indicated by the 1993 data. The only exception in 1993 is that members of the social and behavioral sciences group did work in the hospital, foundation, and government sector at a rate higher than the aggregate average, but the same group does follow the trend on the other two employment sectors. Taken as a whole, the data from Table 6-5 indicate that members of the academic groups are more likely to be employed part-time and in postsecondary education positions when compared to all part-time faculty and most particularly when compared to members of the vocational groups, who tend to be employed full-time and in non-postsecondary education positions.

### *Conclusion*

This chapter examined four elements of the part-time faculty labor market in an effort to distinguish between part-time faculty and full-time faculty regarding earned income and professional development opportunities and among part-timers for those two variables as well as the nature and perceptions part-time faculty hold for their positions at the study institutions and the status and employment sector of positions part-time faculty hold outside of the study institution. The income data indicate that there is a significant difference in the incomes of full- and part-time faculty, even in the aggregate. Furthermore, those differences are more acute for members of the academic groups than they are for members of the vocational groups. While all full-time faculty groups earn the

overwhelming majority of their income from the study institution, the results are different for part-time faculty. Members of the vocational groups tend to earn much more of their income in non-academic jobs and they tend to hold full-time positions in this employment. Part-time members of the academic groups, who earn significantly less than the vocational groups, tend to earn the majority of their income from postsecondary employment and they also tend to have part-time status in these positions. There would seem to be, then, a substantial divide among part-time faculty regarding how, where, and to what level they earn a living. While others (Tuckman, 1979; Gappa and Leslie, 1993) have suggested that these differences are much more a function of the taxonomy of motivation for employment of part-time faculty members, data from this chapter strongly suggest that the field of the part-time faculty member is an important factor as well. While the evidence from this chapter may not be sufficient to indicate that a dual labor market does exist for full- and part-time faculty in two-year institutions in the United States, it does demonstrate that there are two distinct bifurcations: one among part-time and full-time faculty in terms of income and professional development opportunities, and one among academically oriented and vocationally oriented part-time faculty regarding their incomes and other employment statuses. Given these labor market differences, it might be assumed that there are significant differences between these groups concerning their satisfaction with the demands and rewards of the positions, the subject of Chapter 7.

## Chapter 7 Data Analysis: Satisfaction

The third and final analysis chapter explores faculty satisfaction in the area that Valadez and Antony (2001) describe as demands and rewards. Data for five specific satisfaction variables—overall satisfaction, job security, advancement opportunities, salary, and benefits—were included. In addition to these five variables, responses to the question of whether faculty would choose an academic career again were analyzed. The chapter begins with a discussion of the mean responses of both full- and part-time faculty from 1999 and 1993 for each of the variables and concludes with regression analysis of the satisfaction data. While six variables are included two are particularly important in this chapter's analysis: overall satisfaction and the desire to pursue an academic career again. Overall satisfaction is valuable because it presents faculty members' perceptions of their positions as a whole; the desire to choose an academic career again not only indicates faculty members' willingness to experience the demands and rewards of academe, but also, in a larger sense, measures their overall orientation and dedication to an academic life.

### *Satisfaction Means*

For each of the satisfaction variables faculty members were asked to respond on a scale of one to four, with one representing very dissatisfied, two representing somewhat dissatisfied, three representing somewhat satisfied, and four representing very satisfied. As with the income data from Chapter 6, these data were analyzed to discern differences between full- and part-time faculty and differences among the various part-time faculty groups. Table 7-1 shows a comparison of satisfaction



Table 7-1 1999 Mean Satisfaction Comparisons Part-time vs. Full-time

		Overall	pt-ft	Security	pt-ft	Advan Op	pt-ft	Salary	pt-ft	Benefits	pt-ft	Ac Again	pt-ft
All													
	Part-time	3.24	-.070	2.73	-.610	2.45	-.480	2.56	-.150	2.30	-.830	3.22	-.190
	Full-time	3.31		3.34		2.93		2.71		3.13		3.41	
Arts & Humanities													
	Part-time	3.12	-.220	2.60	-.780	2.23	-.760	2.36	-.390	2.06	-1.090	3.30	-.160
	Full-time	3.34		3.38		2.99		2.75		3.15		3.46	
Social Science													
	Part-time	3.13	-.250	2.53	-.940	2.33	-.680	2.42	-.350	2.25	-.980	3.30	-.250
	Full-time	3.38		3.47		3.01		2.77		3.23		3.55	
Hard Sciences													
	Part-time	3.22	-.060	2.72	-.790	2.47	-.670	2.50	-.170	2.19	-.940	3.07	-.430
	Full-time	3.28		3.51		3.14		2.67		3.13		3.50	
Computer/Technology													
	Part-time	3.39	.070	3.02	-.350	2.63	-.250	2.84	.050	2.51	-.710	3.17	-.140
	Full-time	3.32		3.37		2.88		2.79		3.22		3.31	
Professions													
	Part-time	3.35	.140	2.79	-.440	2.59	-.190	2.67	.010	2.41	-.620	3.17	-.200
	Full-time	3.21		3.23		2.78		2.66		3.03		3.37	
Trades													
	Part-time	3.44	.050	2.92	-.210	2.69	-.170	2.83	.120	2.64	-.410	3.14	-.200
	Full-time	3.39		3.13		2.86		2.71		3.05		3.34	
Low Status Pros													
	Part-time	3.23	-.050	2.81	-.480	2.54	-.280	2.66	.010	2.43	-.710	3.34	.010
	Full-time	3.28		3.29		2.82		2.65		3.14		3.33	

means for two-year part- and full-time faculty from NSOPF 1999 (for a complete listing of means and standard deviations refer to Appendix H). The first variable is satisfaction with the job overall. For part-time faculty as an aggregate group this was the variable with the highest mean value, and, at 3.24, it demonstrated that part-timers were more than somewhat satisfied with their positions overall at community colleges. This variable and the variable answering the question of whether faculty would choose an academic career again were the only variables for which part-timers as an aggregate group had a mean response above 3.0. Thus, in four of the six categories presented part-time faculty were less than somewhat satisfied, but the two areas where they indicated that they were at least somewhat satisfied were the areas that most directly indicate their dedication to academe. The aggregate data, then, indicated that part-time faculty are satisfied with their positions overall and were willing to pursue an academic career again, a picture that changed when analyzing the seven part-time groups. Full-time faculty responded differently: they were more than somewhat satisfied in four of the six variables, including overall satisfaction and the desire to choose an academic career again, and only less than somewhat satisfied for two of the six variables—advancement opportunities and salary. As a group, full-time faculty were significantly more satisfied than part-time faculty in all six areas, including overall satisfaction and willingness to pursue an academic career again.

When the groups were disaggregated other important trends were evident. Part-timers in the academic groups displayed the lowest levels of overall satisfaction and in four of the other five variables as well. The only exception was in the variable measuring

the desire to choose an academic career again, where physical and biological sciences (listed as hard sciences in the table because of space limitations) part-timers did have the lowest mean, but their counterparts in the arts and humanities and social and behavioral sciences groups had the second highest mean scores. This exception is revealing and at first glance appears to be counterintuitive. That is, if part-timers from the academic groups were less satisfied overall and in each of the other areas of demands and rewards, it would be reasonable to assume that they, therefore, would be less willing to pursue an academic career again. However, they were more willing than any of the vocational groups to pursue an academic career again. Even with their overall dissatisfaction, members of these groups were willing to pursue academic employment; they viewed their primary careers as academically oriented, even if it was less than satisfying. This point adds considerable evidence to explain why there is an oversupply of labor for academic jobs: academics appear to be willing to face greater than average dissatisfaction in pursuit of their aspirations. The opposite applied to part-time vocational faculty. While members of these groups were more satisfied overall and in each of the four areas of demands and rewards, they were significantly less willing to pursue an academic career again. That is, they were not willing to accept the challenges of an academic career, which would account for the changing demographics for these groups discussed in Chapter 5, and the change in earned income sources for part-timers in the trades and services group from Chapter 6.

This trend is reinforced by the differences in means between part-time and full-time faculty for each group displayed in Table 7-1. Part-time members of the academic

groups had lower means than full-time faculty in the same groups, and the differences in the mean responses between part-timers and full-timers in the three academic groups was larger than the difference between part-timers and full-timers in the vocational groups. Furthermore, part-time faculty from all three of the vocational groups actually were more satisfied than their full-time counterparts in two of the six variables: satisfaction with the job overall and satisfaction with salary. Taken together these results show clear differences in satisfaction that appear to depend on one's status as full- or part-time and on the general group to which one belongs.

Table 7-2 displays mean comparisons for part-time and full-time faculty from NSOPF 1993 (a complete table of means and standard deviations can be found in Appendix I). The data show that the level of satisfaction improved for all faculty in all variables between 1992 and 1998; the mean scores for the 1993 study are lower than the mean scores for the 1999 study. However, the results from 1993 demonstrated the same trends as those from 1999. Part-time faculty members from the academic groups had the lowest mean responses for each variable when compared to part-time faculty in the vocational groups. As with 1999, the only exception was the variable regarding choosing an academic career again. For this variable part-time members of the academic groups had the three highest responses. Once again, part-timers in the academic groups indicated less satisfaction in all variables, but they showed the greatest willingness to enter

Table 7-2 1993 Mean Satisfaction Comparisons Part-time vs. Full-time

		Overall	pt-ft	Security	pt-ft	Advan Op	pt-ft	Salary	pt-ft	Benefits	pt-ft	Ac Again	pt-ft
All													
	Part-time	3.21	-.080	2.57	-.720	2.28	-.500	2.60	-.050	2.18	-.940	3.41	-.130
	Full-time	3.29		3.29		2.78		2.65		3.12		3.54	
Arts & Humanities													
	Part-time	3.09	-.130	2.31	-1.010	2.04	-.820	2.40	-.190	1.96	-1.130	3.42	-.130
	Full-time	3.22		3.32		2.86		2.59		3.09		3.55	
Social Science													
	Part-time	3.03	-.220	2.25	-1.070	1.97	-.710	2.18	-.400	1.95	-1.050	3.46	-.090
	Full-time	3.25		3.32		2.68		2.58		3.00		3.55	
Hard Sciences													
	Part-time	3.23	-.090	2.52	-.890	2.21	-.540	2.66	-.040	2.13	-.900	3.59	-.050
	Full-time	3.32		3.41		2.75		2.70		3.03		3.64	
Computer/Technology													
	Part-time	3.37	.080	2.90	-.420	2.57	-.210	2.86	.180	2.44	-.720	3.38	-.010
	Full-time	3.29		3.32		2.78		2.68		3.16		3.39	
Professions													
	Part-time	3.28	-.060	2.80	-.440	2.45	-.330	2.72	.090	2.38	-.730	3.40	-.110
	Full-time	3.34		3.24		2.78		2.63		3.11		3.51	
Trades													
	Part-time	3.28	-.040	2.68	-.560	2.37	-.430	2.74	-.040	2.23	-.960	3.36	-.180
	Full-time	3.32		3.24		2.80		2.78		3.19		3.54	
Low Status Pros													
	Part-time	3.28	-.030	2.64	-.640	2.47	-.260	2.71	.070	2.26	-.910	3.42	-.120
	Full-time	3.31		3.28		2.73		2.64		3.17		3.54	

academe again. And, in 1993 this also applied to part-timers in the physical and biological sciences group who had the lowest mean score of all groups in 1999.

The differences between part-timers and full-timers in each group remained similar in 1993 as well. The difference between full-time faculty and part-time faculty responses for the academic groups was larger than the differences between part-timers and full-timers in the vocational groups. As was the case in 1999, in several cases vocational part-timers had a higher mean than their full-time counterparts. Computing and technology part-time faculty had higher mean satisfaction for job overall and salary, and professions part-timers had a higher mean satisfaction for salary.

While the data from Table 7-2 did show a general improvement in satisfaction for both full- and part-time faculty between 1993 and 1999, they reinforce the findings from 1999. There were significant differences in the aggregate between full-time faculty and part-time faculty in each of the six satisfaction variables. Those aggregate differences changed, however, when faculty were divided among this study's seven groups. Part-timers from the academic groups were less satisfied than part-timers in the vocational groups, but full-time faculty from the academic groups tended to be more satisfied than their counterparts from the vocational groups. Therefore, the differences among part-timers are not simply the result of uniform satisfaction differences across disciplines. In the second half of the chapter it will be determined if these differences hold after controlling for key variables with weighted least squares regressions.

### *Satisfaction Regressions*

The purpose of this section is to examine if the differences found in the first section of the chapter held when other variables were taken into account. All of the regressions discussed in this section were run as weighted least squares (WLS) regressions. That is, the normalized weight variable discussed in Chapter 4 was included in the regressions to estimate a more representative national sample from the NSOPF data. Dummy variables were created in several areas for the regressions, including job status and group, gender, highest degree attained, and race. In the job status and group dummies all comparisons were made to the part-time arts and humanities group, to determine if this group continued to be the least satisfied of groups. The results for highest degree attained were compared to faculty members who held a master's degree, the default minimum requirement for most two-year faculty. Race dummies were compared to white faculty member responses. In addition to these dummy variables, variables for number of classes taught, age, age squared, and number of years at the study institution (seniority) were included in all regressions.

This part of the study includes three separate sets of regressions for both NSOPF studies. In the first set of regressions the satisfaction means for all faculty, both full-time and part-time, were included for all six variables. Tables including betas, standard errors and significance for this set of regressions can be found in Appendices J and K. Data from the appendix show that the differences in mean satisfaction remained after controlling for the independent variables. These first regressions, however, assume that the other independent variables have the same effect for part-time and full-time faculty.

Because this assumption is unlikely to be true, I turn now to regressions estimated separately for part-time and full-time faculty. Complete results, including betas, standard errors and significance, from these two sets of regressions can be found in Appendices L-O. The remainder of the chapter will focus on analyzing these individual regressions for part-timers and full-timers and comparing regression results of part-time faculty to full-time faculty.

Tables 7-3 and 7-4 display the regression results for the means of the six satisfaction variables for both part-time and full-time faculty from NSOPF 99. Table 7-3 contains data for satisfaction with the job overall, satisfaction with job security, and satisfaction with advancement opportunities, while Table 7-4 contains data for satisfaction with salary, satisfaction with benefits, and the question of whether a faculty member would be willing to pursue an academic career again. For clarity, I will discuss the results for all six dependent variables by the divisions suggested in the tables. The discussion will begin with the disaggregated faculty groups, move to the effects of demographic variables including number of classes taught, age, seniority, and gender, next the focus will be on highest degree attainment, and, finally, race and ethnicity.

The data from Tables 7-3 and 7-4 indicate a pattern about faculty satisfaction. The full-time faculty groups tended to show no significant differences in their satisfaction levels, while part-time members of the arts and humanities and social and behavioral sciences groups were significantly less satisfied than all other part-time groups. In addition, members of the part-time



Table 7-3 NSOPF 1999 Satisfaction Comparing Part-time to Full-time

	Job Overall		Security		Advance Ops	
	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
Social Science	.015	.054	-.073	.037	.087	-.021
Hard Science	.091	-.054	.095	.107*	.212***	.120*
Technology	.251***	.002	.328***	.163**	.330***	-.010
Professional	.191***	-.100*	.081	-.063	.275***	-.154**
Trades	.250***	.047	.084	-.127*	.274**	-.071
Low Status Pro	.097*	-.031	.191**	-.022	.303***	-.091
# of Classes Taught	-.011**	-.016***	-.024***	-.015***	-.016**	-.006
Age	-.033***	-.034***	-.034**	-.037**	-.025	-.028
Age <sup>2</sup>	.0003***	.0003***	.0004**	.0003**	.0003*	.0002
Seniority	.007**	.0009	.014***	.020***	.006	.005**
Male	.064*	.059*	.182***	.008	.188***	.105**
Doctorate	-.219***	-.089**	-.186**	.068	-.262***	.052
1st Professional	.010	-.623***	.068	.462***	-.092	-.317**
Bachelor's	.149***	-.035	.338***	-.191***	.171***	-.142**
Associate's	-.028	.065	.232**	-.289***	.125	-.178
Less/None	.236***	-.083	.491***	-.186	.358***	-.164
Native American	.037	.102	.284	.180	-.087	.223
Asian/Pac Islander	-.178	-.019	-.302*	.167*	-.131	.018
African American	.145*	-.005	.145	-.067	.189*	-.040
Hispanic	-.036	.058	.096	.238***	.046	.262***
n	2015	2268	2015	2268	2015	2268
adjusted r <sup>2</sup>	.046	.021	.057	.068	.043	.023

physical and biological sciences group, while more satisfied than the other two academic groups, were less satisfied than members of the vocational groups.

The mean responses for satisfaction with the job overall indicate a pattern seen in the other four demand and reward variables: There were significant differences between the part-time groups for all variables, while there were few significant differences for the full-time groups after controlling for the other independent variables. In terms of overall job satisfaction part-timers from the three academic groups had no significant differences, while part-time members of the vocational groups were all significantly more satisfied than part-timers from the academic groups. In the full-time ranks differences were not significant, nor were they large. The only significant difference in satisfaction for full-time groups compared to members in the arts and humanities was for members of the professions group. While part-time faculty members from the professions group were significantly more satisfied than part-time members of the arts and humanities group, the opposite applied for their full-time counterparts, the professions group was less satisfied than the arts and humanities group.

This pattern held for the other four demand and reward variables—security, advancement opportunities, salary, and benefits. As demonstrated in Tables 7-1 and 7-2 the pattern reversed itself regarding the question of whether a faculty member would be willing to pursue an academic career again. For this variable part-time faculty members from the arts and humanities group were significantly more likely to indicate a desire to pursue an academic career again. No such significant differences exist for the full-time faculty groups. Hence, even when controlling for other variables, part-timers from the academic groups, while less satisfied overall and with other demand and reward areas, were significantly more likely to be willing to pursue an academic career again.

Table 7-4 NSOPF 1999 Satisfaction Comparing Part-time to Full-time

	Salary		Benefits		Academe Again	
	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
Social Science	.083	-.084	.201**	.078	-.008	.084
Hard Science	.141*	-.114*	.130*	-.023	-.232***	.033
Technology	.420***	.086	.384***	.056	-.122*	-.088
Professional	.236***	-.064	.275***	-.118**	-.125**	-.061
Trades	.320***	-.044	.380***	-.132*	-.168**	-.044
Low Status Pro	.278***	-.044	.371***	-.003	.043	-.108**
# of Classes Taught	-.001	-.017***	-.009	-.017***	.008	-.003
Age	-.031**	-.052***	-.021	-.041***	.012	-.027**
Age <sup>2</sup>	.0003**	.0005***	.0002*	.0004***	-.0001	.0002*
Seniority	.010***	.007***	.004	.008***	.007**	.005***
Male	.080*	.095**	.118**	.013	.006	-.012
Doctorate	-.323***	.002	-.299***	-.023	.045	.002
1st Professional	.070	-.288**	.057	-.320**	-.149	-.146
Bachelor's	.210***	-.032	.112*	.114**	.048	-.086*
Associate's	.174*	.130	.261**	.195*	-.058	-.249***
Less/None	.367***	-.085	.407***	-.024	.111	-.198*
Native American	-.407*	-.095	-.004	-.184	.243	-.189
Asian/Pac Islander	.187	-.091	-.189	-.220**	.026	.016
African American	.014	.004	.056	.024	.051	.017
Hispanic	.206**	.275***	.155	.051	.030	.189***
n	2015	2268	2015	2268	2015	2268
adjusted r <sup>2</sup>	.053	.019	.044	.025	.016	.019

For all areas of satisfaction, the independent variables for number of classes taught, age, age squared, and seniority were significant in most cases. The effect on the overall mean for these variables was generally fairly low, in many cases less than one-tenth of a point on the four point scale, and, therefore, not qualitatively important. The dummy variable for gender was both significant and important in several cases. Gender was a significant factor in determining satisfaction, particularly for part-time faculty in terms of job security, advancement opportunities, and benefits, variables in which men were more satisfied than women.

The effects of the highest degree attained dummies demonstrated different patterns for full-timers and part-timers and, these patterns, generally, were both significant and important. Part-time faculty who had attained a doctorate were significantly less satisfied with their positions overall and in the other demand and reward variables, when compared to those part-time faculty members holding a master's degree. Conversely, part-timers holding bachelor's degrees or less were more satisfied than part-time faculty who held a master's degree. The effects of highest degree attainment were diametrically opposed to those for part-time faculty. Full-time faculty who had attained a doctoral degree tended not to show significant differences than those with a master's degree, but those full-time faculty members with less than a master's degree tended to be less satisfied than full-timers possessing a master's degree. Full-time faculty holding a first professional degree demonstrated important differences. They were more than six-tenths of a point less satisfied overall than full-timers with a master's degree and also were significantly less satisfied in the other four demand and reward categories.

As noted in Chapter 5 all two-year faculty in the United States tend to be white, and the number of underrepresented faculty is quite small in both of the NSOPF datasets. Given this, regression results regarding race should be viewed with some skepticism. Generally there were some large differences for other racial groups when compared to whites, but these differences did not always show statistical significance due to the low number of observations for the various racial groups. Given those limitations, regression results are included in the tables but will not be discussed.

Tables 7-5 and 7-6 display the regression data for the six satisfaction variables for part-time and full-time faculty from 1993. The data from 1993 show the same general patterns as the 1999 data, particularly for part-time faculty. As in 1999, members of all other part-time faculty groups were significantly more satisfied for the first five satisfaction variables than were members of the arts and humanities and social and behavioral science groups. An exception from 1999 was that members of the physical and biological sciences group were significantly more satisfied in all categories and their level of satisfaction for some variables was even larger than members from the vocational groups in 1993. The results for part-time faculty from the physical and biological sciences group showed the most striking change regarding satisfaction between the two NSOPF studies. That is, between 1993 and 1999 this group's relatively high levels of satisfaction vanished. This phenomenon is best reflected in the difference in their response to the question of pursuing an academic career again. In 1993 part-timers from the physical and biological sciences group had a mean response more than two-tenths higher than members of the arts and humanities group. In 1999 their response was more

Table 7-5 NSOPF 1993 Satisfaction Comparing Part-time to Full-time

	Job Overall		Security		Advance Ops	
	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
Social Science	-.014	.018	-.051	-.028	-.055	-.207***
Hard Science	.187***	.095**	.224***	.049	.172**	-.135**
Technology	.212***	.056	.466***	.090*	.428***	-.061
Professional	.143***	.107***	.358***	-.017	.317***	-.091*
Trades	.115***	.072*	.224***	-.005	.206***	-.057
Low Status Pro	.134***	.093***	.285***	.009	.379***	-.099**
# of Classes Taught	-.023***	-.003	-.054***	-.019***	-.049***	-.005
Age	-.014**	-.015	-.026**	-.022**	-.030***	-.017
Age <sup>2</sup>	.0002**	.0002**	.0003***	.0002**	.0004***	.0002*
Seniority	.006***	.004***	.015***	.023***	.006**	.006***
Male	.001	.019	.143***	-.030	.112***	.071**
Doctorate	-.219***	-.048	-.185**	.030	-.196***	-.018
1st Professional	-.065	.028	.114	.134	.097	.135
Bachelor's	.193***	.046	.155***	-.046	.162***	.088*
Associate's	.209***	.115**	.409***	-.142**	.280***	-.178**
Less/None	.245**	.118	.277	-.468***	.527***	-.130
Native American	-.095	-.206*	.397*	-.125	.395**	-.467***
Asian/Pac Islander	-.223***	-.003	-.385***	.010	-.088	-.030
African American	.114**	.027	.353***	-.096*	.322***	.046
Hispanic	-.159**	.036	-.095	.119*	.047	.068
n	3512	4639	3512	4639	3512	4639
adjusted r <sup>2</sup>	.051	.014	.076	.067	.072	.019

than two-tenths less than that of the arts and humanities group, a total drop of nearly five-tenths of a point. It is interesting to note also that while part-time members of the three vocational groups had significantly higher levels of satisfaction for both years, the mean difference of their responses was considerably higher in 1993 compared to 1999.

Full-time faculty satisfaction mean responses did not show the same division between the arts and humanities group and the other groups. Most frequently there was no significant difference between the full-time groups. When differences were present they were as likely to show that members of the arts and humanities group were more satisfied than the other group in question. The only exception to this trend concerned satisfaction with the job overall. For this variable four of the six groups were significantly more satisfied than the arts and humanities group. This is the only variable where the results were similar for both the part-time and full-time groups. The mean differences for part-time faculty were much larger than the differences for full-time faculty, however, which would indicate that while the differences were significant for full-timers, their results still showed much less variation than those for part-timers, indicating that full-time faculty were much more homogenous in their opinions.

In 1993 the role of gender was slightly less important than it was in 1999. In 1993 part-time women were significantly less satisfied than men concerning job security and advancement opportunities, but those differences were less than they were in 1999. The most significant difference for full-time women was with their lower satisfaction with salary compared to men.

Table 7-6 NSOPF 1993 Satisfaction Comparing Part-time to Full-time

	Salary		Benefits		Academe Again	
	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
Social Science	-.149**	-.053	.001	-.101**	.070	.006
Hard Science	.323***	.067	.194**	-.066	.208***	.091*
Technology	.351***	.065	.419***	.046	-.0005	-.156***
Professional	.255***	-.010	.368***	-.004	.003	-.044
Trades	.229***	.118**	.180***	.059	-.039	-.046
Low Status Pro	.246***	.088**	.269***	.085**	-.018	-.006
# of Classes Taught	-.035***	-.010*	-.054***	-.012**	.009	-.001
Age	-.034***	-.040***	-.009	-.028**	-.018**	-.008
Age <sup>2</sup>	.0003***	.0005***	.0001*	.0003***	.0002**	.0001
Seniority	.015***	.007***	.010***	.003*	.009***	-.001
Male	-.0007	.122***	.077**	.028	-.097***	.004
Doctorate	-.139**	-.014	-.135*	-.034	.012	-.039
1st Professional	-.097	-.051	-.042	.038	.064	-.0008
Bachelor's	.247***	.132***	.117***	.112***	.061*	.028
Associate's	.440***	.205***	.262***	.088	-.012	-.112*
Less/None	.488***	-.034	.088	.127	-.024	.077
Native American	.051	-.226*	.039	-.268**	-.269*	-.243**
Asian/Pac Islander	-.159	-.044	-.297**	-.097	-.00003	.014
African American	.156**	-.009	.232***	-.027	.106*	-.102**
Hispanic	.134	.086	.067	-.098	.035	.024
n	3512	4639	3512	4639	3512	4639
adjusted r <sup>2</sup>	.075	.030	.056	.019	.013	.007

The general trends regarding degree attainment and satisfaction from 1999 were also evident in 1993. Part-time faculty who had obtained more than a master's degree, especially the doctorate, tended to be less satisfied than those part-timers with a master's degree. Conversely, part-time faculty with less than a master's degree tended to be more satisfied than those part-timers who had earned a master's. Like 1999, full-time faculty



with less than a master's degree were less satisfied with their job security and advancement opportunities when compared to full-timers with a master's degree, but they were more satisfied with their salary and benefits. Thus, they may have felt vulnerable because of their lack of formal credentials, but they were quite satisfied with the financial benefits of the job compared to their level of training. The primary difference for full-time faculty between the two years was that those who had earned first professional degrees were not significantly less satisfied compared to those who had earned a master's degree. The explanation offered for this phenomenon in 1999 is plausible in 1993. In the fall of 1992 the United States was in the midst of a strong recession. Given the reduced opportunities in the private sector because of the recession those full-time faculty members with professional credentials may not have had the ability to capitalize on their training outside of academe and were more satisfied with their positions at the study institutions.

As discussed above, the effect of race on satisfaction needs to be approached more skeptically because of the low number of individuals of color in the study and the community college faculty in general. There were, however, several interesting results in 1993 regarding race. When compared to the mean responses of white part-time faculty, the mean responses of Asians and Pacific Islander part-timers were lower for all six satisfaction variables. For three of the variables—job overall, security, and benefits—the differences were significant, and each of these differences was more than two-tenths of a point. African American part-time faculty, on the other hand, showed significantly higher mean responses for each of the six satisfaction variables when compared to white part-

timers. In both of these cases there were little or no differences for full-time faculty. Native American faculty also displayed an interesting pattern. Native American part-time faculty tended to be more satisfied, at times significantly so, than whites, while Native American full-timers tended to be significantly less satisfied than whites.

### *Conclusions*

Satisfaction data from both 1999 and 1993 demonstrate that there were significant differences between part-time and full-time faculty in general, and significant differences between the seven part-time groups in the study. These findings have proven to be robust as they are supported by both an analysis of simple group means and by WLS regressions. The three data chapters have revealed a number of differences in the general demographics of two-year faculty, the labor market conditions of two-year faculty, and the satisfaction of two-year faculty. The concluding chapter will discuss how these various differences combine to better conceptualize what can be a contradictory faculty.

## Chapter 8 Conclusions, Discussion, and Implications

This chapter briefly reviews the study, including the problem that motivated the study, the methodology employed in the study, and major findings from the study. After this review, I will interpret and discuss the findings from the perspective that they indicate that the contradictory explanations of part-time faculty found in the literature can be unified when one disaggregates faculty into groups that consider college mission and employment opportunities outside of colleges; furthermore, this disaggregation reveals patterns that link part-time faculty at community colleges to part-time labor in the new economy. Finally, the importance of the study, implications for both scholars and practitioners, and directions for further research will be discussed.

### *Statement of the Problem*

Given the increased use of part-time faculty in American community colleges, to what extent do scholars and practitioners understand who part-time faculty in community colleges are, how they support themselves, their motivations to teach at community colleges, how they view their positions there, and their satisfaction with the demands and rewards of their positions? Because of community colleges' diverse motivations for hiring part-timers, the multiple and at times conflicting missions of various two-year institutions, and the heterogeneity of part-timers themselves, contradictory descriptions of part-time faculty are found in the literature. This study sought to unify contradictory categorizations of part-time faculty in three specific areas: the general demographics of part-time faculty; the existence of a bifurcated or dual faculty labor market in community colleges; and satisfaction of part-time faculty.

*Review of the Methodology*

The study was a quantitative analysis of community college faculty data from both the 1993 and 1999 National Study of Postsecondary Faculty (NSOPF 93 and 99). Initially, research questions from the three areas discussed above were analyzed using NSOPF 99 data to create a picture of the current state of part-time faculty in American community colleges. After the current state of part-time faculty was established, results from NSOPF 99 were compared to those of NSOPF 93 to determine if and how faculty demographics, the existence of a dual labor market, and faculty satisfaction had changed over time.

This study was only concerned with the community college labor market, therefore, the NSOPF datasets were cleaned to include only faculty members from two-year colleges, both private and public, who identified themselves as either full- or part-time. To insure consistency in the data for the study only faculty members who validly responded to all of this study's questions were included in the analysis, a total of 4,283 faculty—1572 full-time and 2711 part-time—from NSOPF 99 and a total of 8,151 faculty—3113 full-time and 5038 part-time from NSOPF 93.

This study disaggregated two-year faculty into seven groups based on college mission and relative employment opportunities outside of academe. While this disaggregation was based in part on the work of Benjamin (1998) discussed in Chapters 2 and 3, my intention was to add detail to the simple dichotomy of liberal arts versus vocational programs established by him and to include as many academic fields as possible into the disaggregation to capture as complete a picture of all part-time faculty in

community colleges as possible. It was not my intention to radically change how fields are grouped, or even to completely abandon the transfer versus training tensions in community colleges. I did, however, refine groupings within transfer programs and training programs with three separate groups for transfer programs and three groups for training programs and a seventh group that has aspects in common with both areas. The seven groups are: arts and humanities; social and behavioral sciences; physical and biological sciences; computing and technology; professional programs; trades and services; and, low status professional programs.

### *Summary of the Results*

Results from the three analysis chapters will be presented in the order they appeared in the study, beginning with demographic data, followed by labor market conditions, and concluding with results on satisfaction. Chapter 5 presented data focused on four demographic categories: gender, race, citizenship, and highest degree attainment. Statistics for gender appeared to be more negative for women. While women did show strong increases in overall faculty representation between 1993 and 1999, it can be argued that those gains came in areas where there were much better opportunities outside of community colleges. And, in both years men were more likely than women to have the most desirable and lucrative positions at community colleges, whether those positions were full-time (academic transfer areas) or part-time (vocational areas).

The next demographic variable presented in Chapter 5 was race. While there were subtle differences among the seven groups included in the study, the overwhelming picture that came from the data was that on the whole, no matter how they are divided,

community college faculty are predominantly white. While there were more faculty of color in 1999 than in 1993, community college faculty did not mirror the population of students they served. In 1997 64.8% of community college students were white, 11.1% were African American, 11.8% were Hispanic, 5.8% were Asian/Pacific Islanders, and 1.3% Native American/Alaskan Natives (AACC, 2000). Given these proportions for students the racial and ethnic composition of all community college faculty requires significant change if it is to approach the diverse mix of students served by colleges.

The results for citizenship status were very similar to those for race and ethnicity: no matter the grouping, community college faculty are overwhelmingly native born United States citizens. With only one of the study's seven groups containing less than 90% native born citizens, and that group still with more than 85% native born citizens, it can certainly be concluded that the community college faculty labor force is in no danger of becoming predominantly foreign born or non-citizen.

The final variable from Chapter 5 concerned the highest degree attained by faculty. In 1999 part-timers in the three academic groups did have a sizable majority of people with Master's degrees and above, but they did not match the level of education of their full-time counterparts. They did, however, have much more education than the other four groups of part-timers, which at best lagged behind the academic part-timers by 21 percentage points in terms of advanced degrees. In fact, full-timers in the computing and technology, the professions, and the trades groups all had fewer advanced degrees than did part-timers in the academic groups. In 1999 then it was possible to say that the academic groups had attained more formal education than the other four groups. Level of

education in 1993 was similar to 1999 with two striking exceptions: the change in the level of education in the computing and technology and the trades groups. While the percentages for the other five groups remained relatively stable during the period, the percentages of advanced degree attainment in these two groups changed dramatically, with the gap between part-timers and full-timers in the computing and technology group closing considerably between 1993 and 1999 and the level of education for all faculty in the trades group falling precipitously during the period.

Chapter 6 presented data for several labor market conditions: income, professional development opportunities, perceptions and motivations for part-time employment at the study institution, and status and sector of other employment of part-time faculty. Income data from 1993 reinforced the findings from 1999. While there were differences among the individual academic groups and differences among the individual vocational groups, the differences between the two general areas—academic and vocational—were more important. In both years part-time faculty from the academic groups earned significantly less on average than did part-time members of the vocational groups. Academic part-timers also relied upon academic income more than the vocational groups who earned a majority of their income from non-academic sources. Part-timers from the academic groups also earned proportionately less when compared to their full-time counterparts than did part-timers from the vocational groups.

The availability of professional development opportunities revealed a major disparity between part- and full-time faculty at community colleges in the United States. In both 1999 and 1993 professional development opportunities were available to full-time

faculty at a rate at least twice as great as that for part-time faculty. The data also indicated that, on average, support increased for full-timers and decreased for part-timers from 1993 to 1999. While there were some differences between the study's seven groups, the important difference regarding professional development opportunities was that all part-timers were clearly disadvantaged, a situation that worsened between 1993 and 1999.

Data from Chapter 6 indicated that members of the academic groups, particularly those in the arts and humanities and the social and behavioral sciences, viewed the study institution as their primary employment and would have preferred to be employed full-time at the institution at rates significantly higher than members of the three vocational groups. In addition, the data about other employment indicated that members of the academic groups were more likely to be employed part-time and in postsecondary education positions when compared to all part-time faculty and most particularly when compared to members of the vocational groups, who tended to be employed full-time and in non-postsecondary education positions.

Chapter 7 analyzed data on faculty satisfaction. There were five specific satisfaction variables: overall satisfaction, job security, advancement opportunities, salary, and benefits. In addition to these five variables, responses to the question of whether faculty would choose an academic career again were analyzed. While the data revealed a general improvement in satisfaction for both full- and part-time faculty between 1993 and 1999, they also suggested distinct patterns in both years. There were significant differences in the aggregate between full-time faculty and part-time faculty for each of the six satisfaction variables. Those aggregate differences changed, however,



when faculty were divided among the study's seven groups. Part-timers from the academic groups were less satisfied than part-timers in the vocational groups, but full-time faculty from the academic groups were more satisfied than their vocational counterparts. As a result, there was a large gap in satisfaction between part-time and full-time faculty in the academic areas but not in the vocational areas.

The WLS regression results from the chapter indicated an additional pattern. The full-time faculty groups tended to show no significant differences in their satisfaction levels, while part-time members of the arts and humanities and social and behavioral sciences groups were significantly less satisfied than all other part-time groups. In addition, members of the part-time physical and biological sciences group, while more satisfied than the other two academic groups, were less satisfied than members of the vocational groups. Gender was also a significant factor in determining satisfaction, particularly for part-time faculty in terms of job security, advancement opportunities, and benefits, categories in which men were more satisfied than women. Highest degree attainment presented significant differences especially for part-time faculty. When compared to the control group of part-timers possessing a master's degree, those part-timers with more formal training, particularly a doctorate, tended to be less satisfied with their positions at two-year institutions, and those part-timers with less formal education than a master's tended to be more satisfied.

The data from 1993 demonstrated the same general patterns as the 1999 data, particularly for part-time faculty. An exception in 1993 from 1999 was that members of the physical and biological sciences group were significantly more satisfied in all

categories and their level of satisfaction for some variables was even larger than members from the vocational groups in 1993. Part-time faculty from the physical and biological sciences group showed the most striking change regarding satisfaction between the two NSOPF studies. That is, between 1993 and 1999, the higher levels of satisfaction this group possessed seemed to vanish.

Satisfaction data from both 1999 and 1993 demonstrated that there are significant differences between part-time and full-time faculty in general, and significant differences between the seven part-time groups in the study. These findings proved to be robust as they were supported by both an analysis of simple group means and by WLS regressions.

#### *Discussion of the Results*

The three data chapters revealed a number of differences in the general demographics of two-year faculty, the labor market conditions of two-year faculty, and the satisfaction of two-year faculty. Those differences illuminate two distinct divisions in community college faculty. First, in the aggregate part-time faculty in community colleges hold fewer advanced degrees, earn less income, have fewer professional development opportunities, and are less satisfied with the demands and rewards of their positions: on the whole, a bleak picture. This study's findings indicate that even in the aggregate part-time faculty appear to be second-class members of community college cultures and to treat them this way is to invite a myriad of problems relating to morale, quality of instruction, and student success.

But what of the other studies in the literature that have presented part-time faculty as a contradictory labor force? The literature presents a dichotomy about part-time

faculty: are they exploited (Karabell, 1998; Dubson, 2001) or highly trained and paid professionals (Gappa & Leslie, 1993)? Do they bring rare and highly valued expertise and training to campuses (Gappa & Leslie, 1993; Roueche, Roueche, & Milliron, 1995) or are they economic expedients and an easy means to efficiency (Rhoades, 1996)? Are they excluded and marginalized on campuses (Karabell, 1998; Dubson, 2001) or satisfied with their positions on campuses and the relative lack of demands for time their temporary positions bring? The disaggregated results for the seven part-time faculty groups help unravel those contradictions. As described in Chapter 2 part-time labor in the new economy can be described in two general categories: those who possess rare and highly valued skills who have numerous options for employment across numerous sectors, and those whose skills are readily available and valuable in only one specific sector. Obviously it is possible that both types of these part-timers could be found in any institution. The findings from this study indicate that these two types of part-timers exist simultaneously on community college campuses and they can be distinguished by the disaggregation employed by this study.

The first contradiction mentioned above concerns whether part-timers are exploited or highly paid professionals. Whether or not the data from Chapter 6 prove the answer to that question depends upon which group of part-timers one examines. Part-time members of the academic transfer groups earn the lowest wages of all community college faculty and they proportionately earn less in comparison to their full-time counterparts. This group of part-timers would prefer to be full-time faculty, and they earn the majority of their income from part-time academic jobs. It also is consistently reported that there is

a glut of people trained for these positions. Therefore, one could view this group as exploited. Conversely, part-timers from the vocational groups are relatively well-paid in terms of total income due mostly from their high incomes from non-academic employment, and proportionately earn nearly as much as their full-time counterparts. Members of this group prefer part-time positions at colleges and tend to hold full-time positions outside of higher education. These non-academic positions allow them to acquire training and skills, perhaps not degrees, that are rare and highly valued by vocational programs at community colleges. Part-time faculty from the vocational groups, then, can be described as highly trained and paid professionals.

The second contradiction, are part-timers highly trained professionals or economic expedients, is directly related to the first. Part-timers from the academic transfer group have few desirable employment options outside of higher education. Because of this lack of options they are willing to accept part-time positions. Colleges, therefore, are able to employ large numbers of this group to increase efficiency and flexibility. Part-time faculty from the vocational groups, while they do increase efficiency and flexibility, tend not to seek full-time employment because they have numerous employment options outside of academe, and they bring specialized training and experience to college's vocational programs.

The group to which one belongs also resolves the final contradiction. Part-time faculty from the academic transfer groups would prefer full-time employment. That is, they seek more connection and collegiality on campuses and are unable to achieve it either because it is not offered and/or they have obligations at more than one school. This

situation, reasonably, should create a sense of marginalization. Once again, part-time members of the vocational groups have different motivations for teaching part-time, and, importantly, have opportunities for meaningful interaction outside of colleges because of their full-time careers. Thus, this group of part-timers is much less concerned about the status of their positions at community colleges.

### *Importance of the Study and Its Relationship to Previous Research*

The study suggests a new conceptualization of part-time faculty in community colleges. In it, I attempted to present evidence that unifies the apparently conflicting descriptions of part-timers. Given the evidence that community colleges are increasingly globalized institutions, the study sought to discover if part-time faculty could be better conceptualized in terms of temporary labor in the New Economy. The contradictions of temporary labor in the New Economy resemble those of part-time faculty in community college. Castells (2001) and Smith (2001) argue that a gulf exists for temporary labor in the New Economy. Some temporary labor is valued by the institutions that hire them because of the skill and expertise they bring. This group has numerous options outside of the employing institution to capitalize on their skills and expertise. If academe is conceived of as one industry, then the part-time faculty that have increased opportunities outside of academe probably possess skills valued by the two-year institutions that hire them and can choose where and when they will work. On the other side of the gulf of temporary labor is the group that does not possess rare, highly valued skills and abilities. These part-timers do not have numerous opportunities in multiple industries. This lack of employment options causes these part-timers to seek, sometimes desperately so, full-

time, stable employment with the institution where they are employed. Their situation is exacerbated by the fact that there is a surplus of people who can perform their duties, and companies, in an effort to embody the values of efficiency and flexibility central to globalized institutions, are reluctant to promote these part-timers to full-time status. Both Castells and Smith suggest that both of these groups coexist in the New Economy. They are not mutually exclusive; in fact, both types of part-timers can be found in the same institution simultaneously. By disaggregating part-time faculty in two-year institutions, this study presented compelling evidence that the disaggregated groups resemble one of the two types of New Economic part-time labor.

Beyond this conceptualization, the study presented evidence that the contradictory descriptions of part-time faculty in community colleges are all accurate. The study increased knowledge of part-time faculty by unifying the taxonomies of Tuckman (1979) and Gappa and Leslie (1993) with more current theories of the use of part-time academic labor (Rhoades, 1998). This unification was accomplished by expanding the disaggregation introduced by Benjamin (1998). The study's disaggregation was conceived as a means of unifying the central contradiction of community college mission—the academic transfer mission, and the vocational, labor force development mission—and employment opportunities outside of academe. The seven group disaggregation also sought to incorporate faculty from all fields, expanding on the more exclusive nature of Benjamin's (1998) disaggregation.

Finally, the study presented evidence that adds nuance to an understanding of part-time faculty in three areas: demographics, particularly in terms of gender and

academic training; labor market conditions, including income, professional development opportunities, conceptions of institutional employment, and the status and sector of outside employment; and satisfaction with the demands and rewards of part-time employment.

### *Implications and Recommendations*

When considering the results of the study a major implication for scholars, practitioners, and policy makers arises: part-time faculty in community colleges should not be conceived of or studied as a single group. Given the significant and important differences found in all areas of this study both between part-time and full-time faculty and among the disaggregated groups of part-timers, future research and policy making must attempt to consider as wide a range of disciplines as possible, while at the same time disaggregating those disciplines to capture the nuanced differences that exist among part-timers.

Scholars should consciously design studies that make explicit any decisions to study one particular group of part-time faculty and acknowledge that results for one group of part-timers could be fundamentally different for other groups. This would help end the one part of the “war” the literature on community college faculty has waged against itself (Frye, 1994). To further reduce the contradictions found in the literature, scholars should seek to both include faculty members from all of the various fields served by the diverse missions of community colleges while simultaneously disaggregating faculty groups to offer nuanced analysis instead of potentially biased results.

The results of this study should indicate to community college leaders that current policies and practices regarding the use of part-time faculty should be reconsidered. Because part-time faculty have different perceptions about their positions at colleges and widely varying opportunities outside of an academic setting, colleges should seek to find appropriate means for addressing those varying needs. The results from this study indicate that part-time employment for members of the academic transfer groups places those faculty members in an undesirable, subservient position which affects both their quality of life and satisfaction. In that case colleges should move to convert as many of these positions as possible to full-time. This does not have to be a financial disaster for colleges. This study's results indicate that there are a large number of individuals from this group that are satisfied with and desire part-time positions. Therefore, colleges would be able to maintain flexibility for meeting fluctuating enrollment demand on the margins by continuing to hire a percentage of part-timers in academic transfer areas while increasing the stability of their faculty labor force. Because part-time faculty from the vocational areas tend to be satisfied with and desire their part-time positions there is no need to consider the same type of part-time to full-time conversion for this group. This study has demonstrated that vocational part-timers do resemble the highly paid and trained experts described by Gappa and Leslie (1993) that enrich campuses while deriving personal and professional satisfaction from their part-time positions. In both cases college leaders will be able to maintain a large amount of the cost savings and flexibility to which they have become accustomed from the use of part-timers while



increasing the stability and overall level of satisfaction in their most important labor force, the faculty.

### *Further Research*

This study suggests further research in both quantitative and qualitative areas. A first step quantitatively would be to develop regressions for the labor market factors from Chapter 6. While the mean comparisons from this study were significant, it would be valuable to determine if they are robust and would remain after controlling for significant independent factors. Beyond that, it would be important to develop models that include additional data to all areas of the analysis, particularly data on location, school size, and institutional resources, which allow for important further refinements in the results. This study's findings also call for extensive qualitative research. Case studies of part-time faculty at a representative sample of community colleges are needed to confirm if the study's findings actually represent the situation and sentiments of part-time faculty. As mentioned above, any study of part-time faculty must be conceptualized in terms of the disaggregated groups presented in this study to avoid presenting an inaccurate and incomplete picture of their situation. Equally as important, qualitative methods would allow researchers to gain further nuance about labor market factors and satisfaction that the NSOPF surveys were not able to capture.

---

Appendix A Seven Group Disaggregation

---

Groups and Field	NSOPF Field Code
<b>1) Arts and Humanities</b>	
Art History and Appreciation	141
Dance	143
Design	144
Dramatic Arts	145
Film Arts	146
Fine Arts	147
Music	148
Music History and Appreciation	149
Other Visual and Performing Arts	150
Broadcasting and Journalism	182
Communications Research	183
Other Communications	190
English, General	291
Composition and Creative Writing	292
American Literature	293
English Literature	294
Linguistics	295
Speech, Debate and Forensics	296
English as a Second Language	297
English, Other	300
Chinese	311
French	312
German	313
Italian	314
Latin	315
Japanese	316
Other Asian	317
Russian or Other Slavic	318
Spanish	319
Other Foreign Languages	320
Library and Archival Sciences	380
Philosophy	440
Religion	441
Theology	442

---

Appendix A Seven Group Disaggregation cont.

---

Groups and Field	NSOPF Field Code
<b>2) Social and Behavioral Sciences</b>	
Psychology	510
Social Sciences, General	541
Anthropology	542
Archeology	543
Area and Ethnic Studies	544
Demography	545
Economics	546
Geography	547
History	548
International Relations	549
Political Science and Government	550
Sociology	551
Other Social Sciences	560
<b>3) Physical and Biological Sciences</b>	
Mathematics/Statistics	390
Biochemistry	391
Biology	392
Botany	393
Genetics	394
Immunology	395
Microbiology	396
Physiology	397
Zoology	398
Biological Sciences, Other	400
Astronomy	411
Chemistry	412
Physics	413
Earth, Atmosphere, and Oceanographic	414
Physical Sciences, Other	420

---

Appendix A Seven Group Disaggregation cont.

---

Groups and Field	NSOPF Field Code
<b>4) Computing and Technology</b>	
Communication Technologies	184
Computer and Information Sciences	201
Computer Programming	202
Data Processing	203
Systems Analysis	204
Other Computer Science	210
Allied Health Technologies	331
Science Technologies	530
<b>5) Professional</b>	
Architecture and Environmental Design	121
City, Community, and Regional Planning	122
Land Use Management & Reclamation	124
Other Arch. and Environmental Design	130
Accounting	161
Banking and Finance	162
Business Administration and Management	163
Human Resources Development	165
Marketing and Distribution	167
Other Business	170
Advertising	181
Engineering, General	261
Civil Engineering	262
Electrical and Communication Engineering	263
Mechanical Engineering	264
Chemical Engineering	265
Other Engineering	270
Engineering-Related Technologies	280
Dentistry	332
Health Services Administration	333
Medicine, including Psychiatry	334
Pharmacy	336
Public Health	337
Veterinary Medicine	338
Other Health Sciences	340

---

Appendix A Seven Group Disaggregation cont.

---

Groups and Field	NSOPF Field Code
Law	370
Public Affairs	520
<b>6) Trades and Services</b>	
Agribusiness and Agricultural Production	101
Agricultural, Animal, Food and Plant Science	102
Renewable Natural Resources	103
Other Agriculture	110
Interior Design	123
Crafts	142
Home Economics	350
Industrial Arts	360
Parks and Recreation	430
Protective Services	500
Carpentry	601
Electrician	602
Plumbing	603
Other Construction Trades	610
Personal Services	621
Other Consumer Services	630
Electrical Repair	641
Heating, Air Conditioning, and Refrigeration	642
Vehicle Mechanics and Repairers	643
Other Mechanics and Repairers	644
Drafting	661
Graphic and Print Communications	662
Leatherworking and Upholstering	663
Precision Metal Work	664
Woodworking	665
Other Precision Production Work	670
Air Transportation	681
Land Vehicle and Equip Operation	682
Water Transportation	683
Other Transportation and Moving	690

---

Appendix A Seven Group Disaggregation cont.

---

Groups and Field	NSOPF Field Code
<b>7) Low Status Professionals</b>	
Business Administrative Support	164
Education, General	221
Basic Skills	222
Bilingual/Cross-cultural Education	223
Curriculum and Instruction	224
Education Administration	225
Education Evaluation and Research	226
Educational Psychology	227
Higher Education	228
Special Education	229
Student Counseling	230
Other Education	231
Pre-Elementary	241
Elementary	242
Secondary	243
Adult and Continuing	244
Other General Teacher Education Programs	245
Teacher Education in Specific Subjects	250
Nursing	335
Physical Education	470

---

Appendix B NSOPF 1993 Two-year Faculty Race and Ethnicity by Percentage

---

	White	Af-Am	Hispanic	Asian/PI	Native Am
All Faculty	86.7	5.4	4.2	2.8	0.9
All Full-time	85.2	6.2	4.1	3.5	1.0
All Part-time	87.7	4.9	4.2	2.4	0.8
Art/Human Part-time	87.1	3.0	6.6	2.3	1.0
Art/Human Full-time	86.3	5.0	4.5	3.2	1.0
Soc Sci Part-time	88.3	6.6	2.3	2.2	0.5
Soc Sci Full-time	84.4	7.4	4.6	3.0	0.5
Hard Sci Part-time	90.7	3.3	1.6	4.5	0.0
Hard Sci Full-time	86.2	3.9	3.0	6.7	0.3
Technology Part-time	91.8	1.8	2.5	2.4	1.5
Technology Full-time	90.6	5.3	2.0	1.8	0.3
Professional Part-time	90.1	4.7	2.6	1.9	0.7
Professional Full-time	85.9	4.6	4.4	3.1	2.1
Trades Part-time	87.5	4.9	4.1	2.8	0.6
Trades Full-time	87.0	3.9	4.3	3.8	1.1
Low Status Pro Part-time	81.6	10.4	5.7	1.6	0.7
Low Status Pro Full-time	79.9	11.0	4.3	3.6	1.1

---

---

Appendix C NSOPF 1993 Two-year Faculty Citizenship by Percentage

---

	Native	Naturalized	Non-Citizen
All Faculty	92.7	5.0	2.3
All Full-time	93.2	4.9	1.9
All Part-time	92.4	5.1	2.5
Art/Human Part-time	89.2	7.3	3.5
Art/Human Full-time	93.2	5.1	1.8
Soc Sci Part-time	92.3	5.8	1.9
Soc Sci Full-time	92.1	4.1	3.7
Hard Sci Part-time	88.5	6.5	5.0
Hard Sci Full-time	89.3	7.4	3.3
Technology Part-time	94.4	4.5	1.0
Technology Full-time	97.7	2.0	0.3
Professional Part-time	94.6	2.8	2.6
Professional Full-time	95.1	3.7	1.3
Trades Part-time	92.6	5.6	1.8
Trades Full-time	91.9	5.9	2.2
Low Status Pro Part-time	96.2	2.5	1.4
Low Status Pro Full-time	93.4	5.5	1.1

---



---

Appendix D NSOPF 1993 Two-year Faculty Highest Degree by Percentage

---

	Ph.D.	Master's	Bachelor	Associate	None
All Faculty	14.9	57.0	20.5	6.5	1.0
All Full-time	19.3	64.0	11.9	4.0	0.8
All Part-time	12.2	52.7	25.9	8.2	1.1
Art/Human Part-time	8.8	68.9	19.3	2.5	0.5
Art/Human Full-time	23.4	72.5	3.8	0.4	0.0
Soc Sci Part-time	25.6	67.8	5.8	0.3	0.5
Soc Sci Full-time	34.4	63.8	1.8	0.0	0.0
Hard Sci Part-time	28.0	58.4	12.4	1.3	0.0
Hard Sci Full-time	37.5	58.7	3.8	0.0	0.0
Technology Part-time	4.9	35.6	39.0	19.1	1.5
Technology Full-time	8.8	53.0	29.7	7.9	0.6
Professional Part-time	20.2	37.1	30.0	11.8	0.9
Professional Full-time	17.3	58.2	17.9	5.9	0.7
Trades Part-time	5.6	43.6	31.6	16.2	3.0
Trades Full-time	12.5	50.7	19.3	13.6	3.8
Low Status Pro Part-time	5.1	53.9	36.6	3.8	0.5
Low Status Pro Full-time	9.1	76.5	13.1	1.0	0.3

---

---

Appendix E NSOPF 1999 Income Means and Standard Deviations

---

	N	Individual Income mean (std. dev.)	Institution Income mean (std. dev.)	Other Ac Income mean (std. dev.)	Non Ac. Income mean (std. dev.)
All Faculty	4283	45279 (29161)	24331 (23043)	5172 (13201)	15775 (26816)
All Full-time Faculty	1572	53989 (21559)	48528 (16898)	631 (3420)	4829 (13063)
All Part-time Faculty	2711	40226 (31698)	10295 (11690)	7805 (15803)	22125 (30456)
Art/Human Part-time	731	31986 (26093)	10463 (10476)	8465 (15405)	13058 (23213)
Art/Human Full-time	353	52168 (20001)	48452 (16661)	433 (1803)	3281 (9969)
Soc Sci Part-time	323	44891 (32444)	11699 (12893)	7046 (14880)	26145 (29939)
Soc Sci Full-time	161	58504 (24199)	52483 (17676)	1398 (7236)	4621 (15103)
Hard Sci Part-time	404	41775 (30394)	9410 (9449)	15034 (20989)	17331 (28949)
Hard Sci Full-time	241	54401 (19199)	50297 (16631)	1006 (4206)	3097 (10970)
Technology Part-time	288	43729 (28079)	9174 (12204)	4125 (11548)	30429 (28695)
Technology Full-time	129	55521 (26134)	46180 (17415)	404 (2876)	8936 (18297)
Professional Part-time	389	50599 (41930)	9638 (11707)	3944 (11734)	37016 (42765)
Professional Full-time	243	55587 (23217)	47603 (16266)	553 (2226)	7430 (16250)
Trades Part-time	216	45473 (32558)	11492 (16001)	4288 (12525)	29692 (27900)
Trades Full-time	165	54408 (22671)	46380 (15621)	277 (1578)	7750 (15556)
Low Status Pro Part-time	360	33901 (26673)	10575 (11474)	8245 (16269)	15080 (21778)
Low Status Pro Full-time	280	50989 (18641)	47979 (17619)	500 (2512)	2509 (6784)

---

---

Appendix E cont. NSOPF 1993 Income Means and Standard Deviations

---

	N	Individual Income mean (std. dev.)	Institution Income mean (std. dev.)	Other Ac Income mean (std. dev.)	Non Ac. Income mean (std. dev.)
All Faculty	8151	45348 (33917)	24982 (29024)	5202 (13668)	15163 (27020)
All Full-time Faculty	3113	54267 (25874)	48738 (21329)	639 (3805)	4889 (13930)
All Part-time Faculty	5038	39838 (36988)	10305 (22755)	8021 (16507)	21510 (30917)
Art/Human Part-time	1285	33342 (39570)	12879 (32667)	9322 (17354)	11140 (19848)
Art/Human Full-time	679	51972 (23114)	48190 (21699)	523 (2763)	3258 (9115)
Soc Sci Part-time	467	40670 (36339)	11120 (24716)	7940 (15306)	21608 (31301)
Soc Sci Full-time	375	57993 (24134)	52337 (18977)	415 (2295)	5240 (14781)
Hard Sci Part-time	306	36894 (24874)	9738 (15591)	11189 (18034)	15966 (22728)
Hard Sci Full-time	254	55812 (26338)	51725 (20199)	1045 (4178)	3041 (16129)
Technology Part-time	408	47152 (44535)	8259 (15171)	6010 (15441)	32882 (38158)
Technology Full-time	227	53077 (27089)	46816 (19232)	554 (4864)	5706 (15254)
Professional Part-time	920	49890 (34835)	8152 (14711)	4252 (13245)	37485 (35782)
Professional Full-time	453	58143 (27298)	49652 (23018)	712 (4553)	7778 (16575)
Trades Part-time	994	40796 (34152)	8748 (15722)	9054 (17099)	22994 (33284)
Trades Full-time	511	54202 (27324)	47423 (19814)	623 (3496)	6154 (17725)
Low Status Pro Part-time	656	33236 (34769)	11604 (22164)	9027 (17761)	12604 (22577)
Low Status Pro Full-time	613	51518 (26281)	47034 (22994)	725 (4519)	3758 (9445)

---

Appendix F NSOPF 1993 and 1999 Two-year Faculty Median Income

	Total Income		Institution Income		Other Academic Inc.		Non-academic Inc.	
	1993	1999	1993	1999	1993	1999	1993	1999
All Faculty	42,920	42,237	11,600	14,000	0	0	1,160	1,500
All Full-time Faculty	49,996	50,000	46,400	46,711	0	0	0	0
All Part-time Faculty	34,167	34,119	4,872	6,500	0	0	5,800	8,000
Art/Human Part-time	23,132	27,850	5,800	7,200	0	0	1,914	1,642
Art/Human Full-time	48,720	49,956	46,400	48,000	0	0	0	0
Soc Sci Part-time	34,220	39,100	5,104	7,102	0	0	5,800	13,281
Soc Sci Full-time	53,524	54,318	50,865	50,000	0	0	0	0
Hard Sci Part-time	34,800	39,661	4,872	7,000	0	0	1,392	1,000
Hard Sci Full-time	55,637	51,000	52,200	48,516	0	0	0	0
Technology Part-time	40,609	43,055	4,060	5,916	0	0	27,106	24,216
Technology Full-time	48,720	50,187	45,240	43,199	0	0	0	300
Professional Part-time	45,240	45,600	3,480	5,953	0	0	33,918	30,000
Professional Full-time	53,086	52,744	47,483	45,000	0	0	0	0
Trades Part-time	37,700	43,920	5,336	6,000	0	0	6,134	28,000
Trades Full-time	49,057	50,000	45,240	43,660	0	0	0	0
Low Status Pro Part-time	26,780	26,700	5,800	7,077	0	0	464	4,496
Low Status Pro Full-time	47,792	48,000	45,287	46,563	0	0	0	0

---

Appendix G NSOPF 1999 Professional Development Resources Available

---

	N	Tuition Remission	Prof Assoc Fees	Professional Travel	Internal Training	Sabbatical
All Faculty	4283	1517 (35.4%)	1309 (30.6%)	1951 (45.5%)	1787 (41.7%)	881 (20.6%)
All Full-time Faculty	1572	914 (58.2%)	837(53.2%)	1325 (84.3%)	1129 (71.8%)	657 (41.8%)
All Part-time Faculty	2711	603 (22.2%)	472 (17.4%)	625 (23.1%)	658 (24.3%)	224 (8.3%)
Art/Human Part-time	731	171 (23.3%)	133 (18.3%)	175 (24.0%)	186 (25.4%)	78 (10.7%)
Art/Human Full-time	353	218 (62.0%)	198 (55.9%)	290 (82.3%)	235 (66.7%)	154 (43.8%)
Soc Sci Part-time	323	89 (27.5%)	73 (22.6%)	93 (29.1%)	96 (29.8%)	28 (8.7%)
Soc Sci Full-time	161	79 (49.3%)	87 (53.9%)	139 (86.4%)	117 (73.1%)	80 (49.7%)
Hard Sci Part-time	404	106 (26.1%)	48 (11.9%)	92 (22.8%)	96 (23.7%)	22 (5.4%)
Hard Sci Full-time	241	150 (62.2%)	116 (48.2%)	199 (82.2%)	173 (71.4%)	111 (45.8%)
Technology Part-time	288	73 (25.2%)	47 (16.2%)	52 (18.0%)	53 (18.5%)	25 (8.9%)
Technology Full-time	129	75 (58.0%)	55 (41.9%)	107 (82.3%)	95 (73.6%)	47 (36.2%)
Professional Part-time	389	68 (17.4%)	73 (18.8%)	95 (24.4%)	93 (23.7%)	38 (9.9%)
Professional Full-time	243	127 (52.3%)	127 (52.4%)	200 (82.2%)	171 (70.4%)	80 (33.0%)
Trades Part-time	216	28 (13.2%)	38 (17.9%)	41 (19.1%)	44 (20.6%)	7 (3.5%)
Trades Full-time	165	84 (50.7%)	92 (55.8%)	143 (86.2%)	126 (76.0%)	71 (42.9%)
Low Status Pro Part-time	360	70 (19.5%)	58 (16.3%)	77 (21.3%)	90 (25.0%)	25 (6.9%)
Low Status Pro Full-time	280	180 (64.5%)	162 (58.2%)	248 (88.8%)	212 (75.8%)	114 (40.6%)

---

---

Appendix G cont. NSOPF 1993 Professional Development Resources Available

---

	N	Tuition Remission	Prof Assoc Fees	Professional Travel	Internal Training	Sabbatical
All Faculty	8151	3662 (44.9%)	2475 (30.4%)	3789 (46.5%)	3788 (46.5%)	2408 (29.5%)
All Full-time Faculty	3113	1982 (63.7%)	1447 (46.5%)	2421 (77.8%)	1956 (62.9%)	1670 (53.6%)
All Part-time Faculty	5038	1680 (33.4%)	1028 (20.4%)	1368 (27.2%)	1832 (36.4%)	738 (14.6%)
Art/Human Part-time	1285	436 (33.9%)	294 (22.9%)	351 (27.3%)	472 (36.7%)	158 (12.3%)
Art/Human Full-time	679	433 (63.7%)	339 (49.8%)	526 (77.5%)	418 (61.5%)	387 (57.0%)
Soc Sci Part-time	467	163 (34.9%)	98 (20.9%)	135 (28.8%)	159 (33.9%)	79 (16.8%)
Soc Sci Full-time	375	217 (57.7%)	157 (42.0%)	296 (79.0%)	223 (59.3%)	200 (53.3%)
Hard Sci Part-time	306	81 (26.6%)	39 (12.7%)	63 (20.4%)	113 (37.1%)	64 (20.9%)
Hard Sci Full-time	254	164 (64.4%)	106 (41.8%)	192 (75.6%)	157 (61.7%)	150 (58.9%)
Technology Part-time	408	150 (36.7%)	98 (24.0%)	131 (32.0%)	164 (40.2%)	73 (17.9%)
Technology Full-time	227	149 (65.8%)	96 (42.5%)	172 (76.0%)	144 (63.4%)	107 (47.3%)
Professional Part-time	920	312 (33.9%)	162 (17.6%)	234 (25.5%)	339 (36.9%)	148 (16.1%)
Professional Full-time	453	278 (61.5%)	198 (43.8%)	345 (76.1%)	290 (64.0%)	240 (53.1%)
Trades Part-time	994	329 (33.0%)	205 (20.6%)	249 (25.0%)	334 (33.6%)	123 (12.4%)
Trades Full-time	511	334 (65.3%)	249 (48.8%)	411 (80.5%)	329 (64.4%)	270 (52.8%)
Low Status Pro Part-time	656	209 (31.8%)	133 (20.3%)	206 (31.4%)	251 (38.2%)	93 (14.2%)
Low Status Pro Full-time	613	407 (66.4%)	301 (49.0%)	477 (77.9%)	396 (64.6%)	316 (51.5%)

---

---

Appendix H NSOPF 1999 Satisfaction Demands and Rewards: Means (Standard Deviations)

---

	N	Job Overall	Security	Advance Opps	Salary	Benefits	Academ Again
All Faculty	4283	3.26 (.772)	2.96 (1.074)	2.63 (1.064)	2.62 (.988)	2.60 (1.064)	3.29 (.753)
All Full-time Faculty	1572	3.31 (.726)	3.34 (.880)	2.93 (.978)	2.71 (.925)	3.13 (.811)	3.41 (.715)
All Part-time Faculty	2711	3.24 (.797)	2.73 (1.113)	2.45 (1.073)	2.56 (1.020)	2.30 (1.074)	3.22 (.766)
Art/Human Part-time	731	3.12 (.826)	2.60 (1.152)	2.23 (1.074)	2.36 (1.033)	2.06 (1.052)	3.30 (.766)
Art/Human Full-time	353	3.34 (.682)	3.38 (.851)	2.99 (.964)	2.75 (.897)	3.15 (.814)	3.46 (.703)
Soc Sci Part-time	323	3.13 (.887)	2.53 (1.104)	2.33 (1.156)	2.42 (1.080)	2.25 (1.128)	3.30 (.852)
Soc Sci Full-time	161	3.38 (.718)	3.47 (.781)	3.01 (.957)	2.77 (.943)	3.23 (.766)	3.55 (.683)
Hard Sci Part-time	404	3.22 (.738)	2.72 (1.091)	2.47 (1.027)	2.50 (1.028)	2.19 (1.015)	3.07 (.863)
Hard Sci Full-time	241	3.28 (.705)	3.51 (.780)	3.14 (.942)	2.67 (.904)	3.13 (.752)	3.50 (.718)
Technology Part-time	288	3.39 (.693)	3.02 (.962)	2.63 (1.039)	2.84 (.949)	2.51 (1.005)	3.17 (.654)
Technology Full-time	129	3.32 (.745)	3.37 (.832)	2.88 (.904)	2.79 (.864)	3.22 (.782)	3.31 (.715)
Professional Part-time	389	3.35 (.738)	2.79 (1.133)	2.59 (1.052)	2.67 (.922)	2.41 (1.052)	3.17 (.716)
Professional Full-time	243	3.21 (.834)	3.23 (.992)	2.78 (1.032)	2.66 (1.007)	3.03 (.902)	3.37 (.752)
Trades Part-time	216	3.44 (.732)	2.92 (1.089)	2.69 (1.014)	2.83 (1.029)	2.64 (1.051)	3.14 (.696)
Trades Full-time	165	3.39 (.643)	3.13 (.922)	2.86 (.997)	2.71 (.865)	3.05 (.808)	3.34 (.649)
Low Status Pro Part-time	360	3.23 (.832)	2.81 (1.101)	2.54 (1.043)	2.66 (.968)	2.43 (1.105)	3.34 (.701)
Low Status Pro Full-time	280	3.28 (.735)	3.29 (.906)	2.82 (.981)	2.65 (.955)	3.14 (.807)	3.33 (.729)

---

---

Appendix I NSOPF 1993 Satisfaction Demands and Rewards: Means (Standard Deviations)

---

	N	Job Overall	Security	Advance Opps	Salary	Benefits	Academ Again
All Faculty	8151	3.24 (.758)	2.85 (1.087)	2.47 (1.054)	2.62 (.978)	2.53 (1.081)	3.46 (.806)
All Full-time Faculty	3113	3.29 (.728)	3.29 (.873)	2.78 (1.017)	2.65 (.941)	3.12 (.825)	3.54 (.776)
All Part-time Faculty	5038	3.21 (.774)	2.57 (1.114)	2.28 (1.033)	2.60 (.999)	2.18 (1.065)	3.41 (.820)
Art/Human Part-time	1285	3.09 (.836)	2.31 (1.141)	2.04 (1.004)	2.40 (1.049)	1.96 (1.029)	3.42 (.830)
Art/Human Full-time	679	3.22 (.770)	3.32 (.859)	2.86 (1.036)	2.59 (.951)	3.09 (.865)	3.55 (.809)
Soc Sci Part-time	467	3.03 (.811)	2.25 (1.104)	1.97 (.999)	2.18 (.967)	1.95 (1.031)	3.46 (.818)
Soc Sci Full-time	375	3.25 (.759)	3.32 (.884)	2.68 (1.024)	2.58 (.931)	3.00 (.844)	3.55 (.764)
Hard Sci Part-time	306	3.23 (.680)	2.52 (1.139)	2.21 (1.029)	2.66 (.873)	2.13 (1.104)	3.59 (.679)
Hard Sci Full-time	254	3.32 (.698)	3.41 (.834)	2.75 (1.021)	2.70 (.971)	3.03 (.833)	3.64 (.689)
Technology Part-time	408	3.37 (.592)	2.90 (1.012)	2.57 (.936)	2.86 (.929)	2.44 (1.050)	3.38 (.821)
Technology Full-time	227	3.29 (.672)	3.32 (.808)	2.78 (.950)	2.68 (.866)	3.16 (.761)	3.39 (.771)
Professional Part-time	920	3.28 (.749)	2.80 (1.026)	2.45 (1.040)	2.72 (.962)	2.38 (1.055)	3.40 (.770)
Professional Full-time	453	3.34 (.698)	3.24 (.912)	2.78 (1.052)	2.63 (.918)	3.11 (.825)	3.51 (.784)
Trades Part-time	994	3.28 (.746)	2.68 (1.089)	2.37 (1.006)	2.74 (.973)	2.23 (1.045)	3.36 (.868)
Trades Full-time	511	3.32 (.727)	3.24 (.895)	2.80 (.984)	2.78 (.920)	3.19 (.793)	3.54 (.785)
Low Status Pro Part-time	656	3.28 (.784)	2.64 (1.108)	2.47 (1.055)	2.71 (.960)	2.26 (1.083)	3.42 (.848)
Low Status Pro Full-time	613	3.31 (.714)	3.28 (.869)	2.73 (1.010)	2.64 (.977)	3.17 (.804)	3.54 (.764)

---



Appendix J NSOPF 1999 Satisfaction Regressions All Faculty

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Art/Human Full-time	.263***	(.051)	.764***	(.068)	.770***	(.069)	.401***	(.065)	1.123***	(.065)	.120**	(.050)
Soc Sci Part-time	.020	(.051)	-.078	(.068)	.081	(.069)	.067	(.065)	.200***	(.065)	-.004	(.050)
Soc Sci Full-time	.316***	(.069)	.813***	(.092)	.773***	(.093)	.425***	(.088)	1.209***	(.088)	.190***	(.068)
Hard Sci Part-time	.094**	(.048)	.109*	(.063)	.218***	(.064)	.136**	(.060)	.133**	(.060)	-.226***	(.046)
Hard Sci Full-time	.210***	(.059)	.874***	(.078)	.901***	(.079)	.303***	(.075)	1.103***	(.075)	.158***	(.058)
Technology Part-time	.261***	(.054)	.386***	(.072)	.371***	(.073)	.449***	(.069)	.409***	(.069)	-.112**	(.053)
Technology Full-time	.229***	(.074)	.761***	(.098)	.659***	(.099)	.409***	(.094)	1.153***	(.094)	-.008	(.072)
Professional Part-time	.218***	(.049)	.149**	(.065)	.322***	(.066)	.267***	(.062)	.303***	(.062)	-.112**	(.048)
Professional Full-time	.041**	(.058)	.598***	(.077)	.549***	(.078)	.274***	(.074)	.967***	(.074)	.040	(.057)
Trades Part-time	.270***	(.065)	.207**	(.086)	.351***	(.087)	.360***	(.082)	.434***	(.082)	-.133**	(.063)
Trades Full-time	.249***	(.069)	.397***	(.091)	.546***	(.092)	.254***	(.087)	.909***	(.087)	.001	(.067)
Low Status Pro Part-tim	.108**	(.050)	.224***	(.066)	.328***	(.067)	.298***	(.063)	.373***	(.063)	.050	(.048)
Low Status Pro Full-tim	.209***	(.055)	.712***	(.073)	.644***	(.074)	.311***	(.070)	1.114***	(.070)	-.001	(.054)
# of Classes Taught	-.012***	(.004)	-.020***	(.005)	-.011**	(.005)	-.006	(.005)	-.012**	(.005)	.004	(.004)
Age	-.033***	(.009)	-.036***	(.011)	-.026**	(.012)	-.035***	(.011)	-.027**	(.011)	.002	(.008)
Age <sup>2</sup>	.0003***	(.000)	.0003***	(.000)	.0003***	(.000)	.0003***	(.000)	.0003***	(.000)	-.00002	(.000)
Seniority	.003*	(.002)	.016***	(.002)	.005**	(.002)	.009***	(.002)	.006***	(.002)	.005***	(.002)
Male	.062**	(.025)	.120***	(.033)	.159***	(.034)	.083***	(.032)	.076**	(.032)	-.004	(.024)

Appendix J cont. NSOPF 1999 Satisfaction Regressions All Faculty

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Doctorate	-.147***	(.039)	-.040	(.051)	-.087*	(.052)	-.139***	(.049)	-.146***	(.049)	.026	(.038)
1st Professional	-.179**	(.078)	-.103	(.104)	-.166	(.106)	-.040	(.100)	-.052	(.100)	-.153**	(.077)
Bachelor's	.101***	(.033)	.198***	(.044)	.090**	(.044)	.150***	(.042)	.117***	(.042)	.014	(.032)
Associate's	-.010	(.059)	.083	(.078)	.042	(.079)	.164**	(.075)	.238***	(.075)	-.110*	(.058)
Less/None	.160**	(.067)	.318***	(.089)	.229**	(.091)	.270***	(.086)	.323***	(.086)	.047	(.066)
Native American	.076	(.121)	.250	(.161)	.006	(.163)	-.301*	(.154)	-.059	(.154)	.113	(.118)
Asian/Pac Islander	-.091	(.075)	-.068	(.100)	-.063	(.101)	.047	(.096)	-.207**	(.095)	.034	(.073)
African American	.086	(.050)	.065	(.067)	.095	(.068)	.014	(.064)	.047	(.064)	.039	(.049)
Hispanic	.003	(.055)	.148**	(.073)	.123*	(.074)	.234***	(.070)	.117*	(.070)	.088	(.054)
n	4283		4283		4283		4283		4283		4283	
adjusted $r^2$	.033		.118		.077		.043		.175		.029	

---

Appendix K NSOPF 1993 Satisfaction Regressions All Faculty

---

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Art/Human Full-time	.158***	(.037)	.986***	(.050)	.848***	(.050)	.217***	(.048)	1.178***	(.048)	.117***	(.040)
Soc Sci Part-time	-.033	(.041)	-.056	(.055)	-.072	(.055)	-.179***	(.052)	-.003	(.053)	.065	(.044)
Soc Sci Full-time	.189***	(.046)	.949***	(.062)	.649***	(.063)	.188***	(.059)	1.075***	(.060)	.126**	(.050)
Hard Sci Part-time	.166***	(.048)	.221***	(.064)	.156**	(.065)	.286***	(.061)	.180***	(.062)	.194***	(.052)
Hard Sci Full-time	.265***	(.053)	1.03***	(.071)	.718***	(.072)	.306**	(.068)	1.105***	(.069)	.218***	(.057)
Technology Part-time	.230***	(.043)	.536***	(.058)	.469***	(.059)	.363***	(.055)	.434***	(.056)	-.011	(.047)
Technology Full-time	.173***	(.055)	.978***	(.074)	.740***	(.074)	.246***	(.070)	1.225***	(.071)	-.037	(.059)
Professional Part-time	.152***	(.034)	.409***	(.045)	.342***	(.045)	.257***	(.043)	.382***	(.043)	-.0004	(.036)
Professional Full-time	.247***	(.042)	.884***	(.057)	.713***	(.057)	.205***	(.054)	1.171***	(.055)	.087*	(.046)
Trades Part-time	.130***	(.033)	.288***	(.044)	.244***	(.044)	.237***	(.042)	.200***	(.042)	-.045	(.035)
Trades Full-time	.202***	(.041)	.853***	(.055)	.713***	(.056)	.307***	(.053)	1.221***	(.053)	.125***	(.044)
Low Stat Pro Part-time	.150***	(.036)	.313***	(.048)	.399***	(.049)	.268***	(.046)	.281***	(.047)	-.007	(.039)
Low Stat Pro Full-time	.221***	(.038)	.968***	(.051)	.717***	(.051)	.259***	(.048)	1.252***	(.049)	.099**	(.041)
# of Classes Taught	-.012***	(.004)	-.033***	(.006)	-.023***	(.006)	-.021***	(.005)	-.032***	(.005)	.003	(.005)
Age	-.015***	(.006)	-.028***	(.008)	-.028***	(.008)	-.036***	(.007)	-.014*	(.008)	-.016**	(.006)
Age <sup>2</sup>	.0002***	(.000)	.0003***	(.000)	.0003***	(.000)	.0004***	(.000)	.0002***	(.000)	.0002***	(.000)
Seniority	.005***	(.001)	.019***	(.002)	.006***	(.002)	.012***	(.002)	.006***	(.002)	.003***	(.001)

---

Appendix K cont. NSOPF 1993 Satisfaction Regressions All Faculty

	Job Overall		Security		Advance Ops		Salary		Benefits		Academe Again	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Male	.005	(.018)	.078***	(.024)	.096***	(.025)	.042*	(.023)	.058**	(.023)	-.060***	(.020)
Doctorate	-.117***	(.028)	-.053	(.038)	-.090**	(.038)	-.058	(.036)	-.076**	(.036)	-.011	(.030)
1st Professional	-.037	(.044)	.122**	(.059)	.105*	(.060)	-.092	(.056)	-.019	(.057)	.043	(.048)
Bachelor's	.157***	(.023)	.093***	(.030)	.135***	(.031)	.220***	(.029)	.110***	(.029)	.053**	(.024)
Associate's	.177***	(.036)	.256***	(.048)	.152***	(.049)	.374***	(.046)	.206***	(.046)	-.038	(.039)
Less/None	.195**	(.084)	.019	(.112)	.295***	(.113)	.309***	(.107)	.077	(.108)	.001	(.090)
Native American	-.143	(.090)	.159	(.120)	.010	(.121)	-.067	(.115)	-.096	(.116)	-.255***	(.096)
Asian/Pac Islander	-.119**	(.050)	-.195***	(.067)	-.060	(.068)	-.102	(.064)	-.199***	(.065)	.008	(.054)
African American	.068*	(.037)	.145***	(.049)	.189***	(.050)	.072	(.047)	.112**	(.047)	.014	(.040)
Hispanic	-.083**	(.041)	-.009	(.055)	.061	(.056)	.113**	(.053)	.046	(.053)	.026	(.045)
n	8151		8151		8151		8151		8151		8151	
adjusted $r^2$	.037		.161		.094		.057		.213		.015	

Appendix L NSOPF 1999 Satisfaction Regressions Part-time Faculty

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Soc Sci Part-time	.015	(.061)	-.073	(.085)	.087	(.083)	.083	(.076)	.201**	(.083)	-.008	(.060)
Hard Sci Part-time	.091	(.057)	.095	(.079)	.212***	(.077)	.141*	(.072)	.130*	(.077)	-.232***	(.055)
Technology Part-time	.251***	(.065)	.328***	(.091)	.330***	(.088)	.420***	(.083)	.384***	(.088)	-.122*	(.064)
Professional Part-time	.191***	(.059)	.081	(.082)	.275***	(.079)	.236***	(.075)	.275***	(.079)	-.125**	(.057)
Trades Part-time	.250***	(.079)	.084	(.110)	.274**	(.107)	.320***	(.101)	.380***	(.107)	-.168**	(.077)
Low Stat Pro Part-time	.097*	(.059)	.191**	(.082)	.303***	(.067)	.278***	(.076)	.371***	(.080)	.043	(.058)
# of Classes Taught	-.011**	(.006)	-.024***	(.008)	-.016**	(.008)	-.001	(.007)	-.009	(.008)	.008	(.006)
Age	-.033***	(.012)	-.034**	(.016)	-.025	(.016)	-.031**	(.015)	-.021	(.016)	.012	(.012)
Age <sup>2</sup>	.0003***	(.000)	.0004**	(.000)	.0003*	(.000)	.0003**	(.000)	.0002*	(.000)	-.0001	(.000)
Seniority	.007**	(.003)	.014***	(.004)	.006	(.004)	.010***	(.004)	.004	(.004)	.007**	(.003)
Male	.064*	(.037)	.182***	(.051)	.188***	(.050)	.080*	(.047)	.118**	(.050)	.006	(.036)
Doctorate	-.219***	(.068)	-.186**	(.094)	-.262***	(.091)	-.323***	(.086)	-.299***	(.091)	.045	(.066)
1st Professional	.010	(.111)	.068	(.155)	-.092	(.150)	.070	(.142)	.057	(.150)	-.149	(.109)
Bachelor's	.149***	(.046)	.338***	(.063)	.171***	(.062)	.210***	(.058)	.112*	(.062)	.048	(.045)
Associate's	-.028	(.081)	.232**	(.113)	.125	(.109)	.174*	(.103)	.261**	(.109)	-.058	(.079)
Less/None	.236***	(.090)	.491***	(.125)	.358***	(.122)	.367***	(.115)	.407***	(.122)	.111	(.088)

Appendix L cont. NSOPF 1999 Satisfaction Regressions Part-time Faculty

	Job Overall		Security		Advance Ops		Salary		Benefits		Academe Again	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Native American	.037	(.172)	.284	(.239)	-.087	(.232)	-.407*	(.219)	-.004	(.232)	.243	(.168)
Asian/Pac Islander	-.178	(.126)	-.302*	(.174)	-.131	(.170)	.187	(.160)	-.189	(.170)	.026	(.123)
African American	.145*	(.078)	.145	(.109)	.189*	(.105)	.014	(.100)	.056	(.105)	.051	(.076)
Hispanic	-.036	(.082)	.096	(.114)	.046	(.111)	.206**	(.104)	.155	(.111)	.030	(.080)
n	2015		2015		2015		2015		2015		2015	
adjusted $r^2$	.046		.057		.043		.053		.044		.016	

Appendix M NSOPF 1999 Satisfaction Regressions Full-time Faculty

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Soc Sci Full-time	.054	(.058)	.037	(.068)	-.021	(.078)	-.084	(.074)	.078	(.065)	.084	(.057)
Hard Sci Full-time	-.054	(.051)	.107*	(.060)	.120*	(.068)	-.114*	(.064)	-.023	(.056)	.033	(.050)
Technology Full-time	.002	(.065)	.163**	(.076)	-.010	(.087)	.086	(.082)	.056	(.072)	-.088	(.064)
Professional Full-time	-.100*	(.051)	-.063	(.061)	-.154**	(.069)	-.064	(.065)	-.118**	(.057)	-.061	(.050)
Trades Full-time	.047	(.062)	-.127*	(.073)	-.071	(.084)	-.044	(.0791)	-.132*	(.069)	-.044	(.061)
Low Stat Pro Full-time	-.031	(.050)	-.022	(.059)	-.091	(.067)	-.044	(.063)	-.003	(.055)	-.108**	(.049)
# of Classes Taught	-.016***	(.005)	-.015***	(.006)	-.006	(.007)	-.017***	(.006)	-.017***	(.006)	-.003	(.005)
Age	-.034***	(.013)	-.037**	(.016)	-.028	(.018)	-.052***	(.017)	-.041***	(.015)	-.027**	(.013)
Age <sup>2</sup>	.0003***	(.000)	.0003**	(.000)	.0002	(.000)	.0005***	(.000)	.0004***	(.000)	.0002*	(.000)
Seniority	.0009	(.002)	.020***	(.002)	.005**	(.003)	.007***	(.003)	.008***	(.002)	.005***	(.002)
Male	.059*	(.034)	.008	(.040)	.105**	(.045)	.095**	(.043)	.013	(.037)	-.012	(.033)
Doctorate	-.089**	(.042)	.068	(.049)	.052	(.056)	.002	(.053)	-.023	(.046)	.002	(.041)
1st Professional	-.623***	(.114)	.462***	(.134)	-.317**	(.153)	-.288**	(.145)	-.320**	(.127)	-.146	(.112)
Bachelor's	-.035	(.050)	-.191***	(.059)	-.142**	(.067)	-.032	(.064)	.114**	(.056)	-.086*	(.049)
Associate's	.065	(.093)	-.289***	(.110)	-.178	(.126)	.130	(.119)	.195*	(.104)	-.249***	(.092)
Less/None	-.083	(.118)	-.186	(.140)	-.164	(.159)	-.085	(.151)	-.024	(.132)	-.198*	(.117)

Appendix M cont. NSOPF 1999 Satisfaction Regressions Full-time Faculty

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Native American	.102	(.175)	.180	(.207)	.223	(.236)	-.095	(.224)	-.184	(.195)	-.189	(.173)
Asian/Pac Islander	-.019	(.084)	.167*	(.100)	.018	(.113)	-.091	(.107)	-.220**	(.094)	.016	(.083)
African American	-.005	(.062)	-.067	(.074)	-.040	(.084)	.004	(.079)	.024	(.069)	.017	(.061)
Hispanic	.058	(.073)	.238***	(.086)	.262***	(.098)	.275***	(.093)	.051	(.081)	.189***	(.072)
n	2268		2268		2268		2268		2268		2268	
adjusted $r^2$	.021		.068		.023		.019		.025		.019	



Appendix N NSOPF 1993 Satisfaction Regressions Part-time Faculty

	Job Overall		Security		Advance Ops		Salary		Benefits		Academe Again	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Soc Sci Part-time	-.014	(.050)	-.051	(.071)	-.055	(.066)	-.149**	(.064)	.001	(.069)	.070	(.054)
Hard Sci Part-time	.187***	(.059)	.224***	(.084)	.172**	(.078)	.323***	(.075)	.194**	(.081)	.208***	(.064)
Technology Part-time	.212***	(.053)	.466***	(.076)	.428***	(.071)	.351***	(.068)	.419***	(.073)	-.0005	(.058)
Professional Part-time	.143***	(.042)	.358***	(.059)	.317***	(.055)	.255***	(.053)	.368***	(.057)	.003	(.045)
Trades Part-time	.115***	(.040)	.224***	(.057)	.206***	(.053)	.229***	(.051)	.180***	(.055)	-.039	(.044)
Low Stat Pro Part-time	.134***	(.044)	.285***	(.063)	.379***	(.058)	.246***	(.056)	.269***	(.060)	-.018	(.048)
# of Classes Taught	-.023***	(.007)	-.054***	(.011)	-.049***	(.010)	-.035***	(.010)	-.054***	(.005)	.009	(.008)
Age	-.014**	(.008)	-.026**	(.012)	-.030***	(.011)	-.034***	(.010)	-.009	(.011)	-.018**	(.009)
Age <sup>2</sup>	.0002**	(.000)	.0003***	(.000)	.0004***	(.000)	.0003***	(.000)	.0001*	(.000)	.0002**	(.000)
Seniority	.006***	(.002)	.015***	(.003)	.006**	(.003)	.015***	(.003)	.010***	(.003)	.009***	(.002)
Male	.001	(.028)	.143***	(.039)	.112***	(.037)	-.0007	(.035)	.077**	(.038)	-.097***	(.030)
Doctorate	-.219***	(.052)	-.185**	(.074)	-.196***	(.069)	-.139**	(.067)	-.135*	(.072)	.012	(.056)
1st Professional	-.065	(.062)	.114	(.088)	.097	(.082)	-.097	(.079)	-.042	(.085)	.064	(.067)
Bachelor's	.193***	(.032)	.155***	(.046)	.162***	(.043)	.247***	(.041)	.117***	(.044)	.061*	(.035)
Associate's	.209***	(.051)	.409***	(.072)	.280***	(.067)	.440***	(.065)	.262***	(.069)	-.012	(.055)
Less/None	.245**	(.123)	.277	(.175)	.527***	(.162)	.488***	(.157)	.088	(.169)	-.024	(.133)

Appendix N cont. NSOPF 1993 Satisfaction Regressions Part-time Faculty

	Job Overall		Security		Advance Ops		Salary		Benefits		Academe Again	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Native American	-.095	(.147)	.397*	(.208)	.395**	(.194)	.051	(.187)	.039	(.201)	-.269*	(.159)
Asian/Pac Islander	-.223***	(.084)	-.385***	(.119)	-.088	(.111)	-.159	(.107)	-.297**	(.115)	-.00003	(.091)
African American	.114**	(.059)	.353***	(.084)	.322***	(.079)	.156**	(.076)	.232***	(.082)	.106*	(.064)
Hispanic	-.159**	(.064)	-.095	(.091)	.047	(.084)	.134	(.081)	.067	(.088)	.035	(.069)
n	3512		3512		3512		3512		3512		3512	
adjusted $r^2$	.051		.076		.072		.075		.056		.013	

Appendix O NSOPF 1993 Satisfaction Regressions Full-time Faculty

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Soc Sci Full-time	.018	(.039)	-.028	(.045)	-.207***	(.054)	-.053	(.049)	-.101**	(.044)	.006	(.041)
Hard Sci Full-time	.095**	(.044)	.049	(.052)	-.135**	(.062)	.067	(.057)	-.066	(.050)	.091*	(.047)
Technology Full-time	.056	(.047)	.090*	(.055)	-.061	(.065)	.065	(.060)	.046	(.053)	-.156***	(.050)
Professional Full-time	.107***	(.037)	-.017	(.043)	-.091*	(.052)	-.010	(.048)	-.004	(.042)	-.044	(.040)
Trades Full-time	.072*	(.037)	-.005	(.043)	-.057	(.052)	.118**	(.047)	.059	(.042)	-.046	(.040)
Low Stat ProFull-time	.093***	(.034)	.009	(.040)	-.099**	(.048)	.088**	(.046)	.085**	(.039)	-.006	(.037)
# of Classes Taught	-.003	(.005)	-.019***	(.011)	-.005	(.006)	-.010*	(.006)	-.012**	(.005)	-.001	(.005)
Age	-.015	(.010)	-.022**	(.011)	-.017	(.013)	-.040***	(.012)	-.028**	(.011)	-.008	(.010)
Age <sup>2</sup>	.0002**	(.000)	.0002**	(.000)	.0002*	(.000)	.0005***	(.000)	.0003***	(.000)	.0001	(.000)
Seniority	.004***	(.001)	.023***	(.002)	.006***	(.002)	.007***	(.002)	.003*	(.002)	-.001	(.002)
Male	.019	(.024)	-.030	(.028)	.071**	(.034)	.122***	(.031)	.028	(.027)	.004	(.026)
Doctorate	-.048	(.030)	.030	(.035)	-.018	(.042)	-.014	(.039)	-.034	(.034)	-.039	(.032)
1st Professional	.028	(.072)	.134	(.084)	.135	(.101)	-.051	(.093)	.038	(.082)	-.0008	(.078)
Bachelor's	.046	(.035)	-.046	(.041)	.088*	(.049)	.132***	(.045)	.112***	(.040)	.028	(.038)
Associate's	.115**	(.058)	-.142**	(.067)	-.178**	(.080)	.205***	(.074)	.088	(.065)	-.112*	(.062)
Less/None	.118	(.119)	-.468***	(.139)	-.130	(.166)	-.034	(.153)	.127	(.135)	.077	(.127)

Appendix O cont. NSOPF 1993 Satisfaction Regressions Full-time Faculty

	<b>Job Overall</b>		<b>Security</b>		<b>Advance Ops</b>		<b>Salary</b>		<b>Benefits</b>		<b>Academe Again</b>	
	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er	$\beta$	Std. Er
Native American	-.206*	(.107)	-.125	(.125)	-.467***	(.149)	-.226*	(.137)	-.268**	(.121)	-.243**	(.114)
Asian/Pac Islander	-.003	(.058)	.010	(.068)	-.030	(.081)	-.044	(.074)	-.097	(.066)	.014	(.062)
African American	.027	(.045)	-.096*	(.052)	.046	(.062)	-.009	(.057)	-.027	(.050)	-.102**	(.048)
Hispanic	.036	(.054)	.119*	(.063)	.068	(.0764)	.086	(.070)	-.098	(.061)	.024	(.058)
n	4639		4639		4639		4639		4639		4639	
adjusted $r^2$	.014		.067		.019		.030		.019		.007	

## References

- Abel, E. K. (1984). *Terminal degrees: The job crisis in higher education*. New York: Praeger.
- Abraham, S. Y., Steiger, D. M., Montgomery, M., Kuhr, B. D., Tourangeau, R., Montgomery, B., & Chattopadhyay, M. (2002). *1999 national study of postsecondary faculty methodology report*. Washington, D.C.: National Center for Educational Statistics, NCES 2002-154.
- American Association of Community Colleges. (2000). *National Profile of Community Colleges: Trends and Statistics 1997-1998*. Washington, D.C.: Community College Press.
- Aronowitz, S. & DiFazio, W. (1994). *The jobless future: Sci-tech and the dogma of work*. Minneapolis: University of Minnesota Press.
- Barker, K. (1998). Toiling for piece rates and accumulating deficits: Contingent work in higher education. In Barker, K., & Christensen, K. (Eds.) *Contingent work: American employment relations in transition*. Ithaca, NY: Cornell University Press.
- Bellas, M. L. (1997). Disciplinary differences in faculty salaries: Does gender bias play a role? *The Journal of Higher Education*, 68:3, 299-321.
- Benjamin, E. (1998). Variations in the characteristics of part-time faculty by general fields of instruction and research. In D. W. Leslie (Ed.) *The growing use of part-time faculty: Understanding causes and effects*. New Directions for Higher Education No. 104. San Francisco: Jossey-Bass.
- Berger, A. R., & Kirshstein, R. J. (2003). The many faces of part-time faculty. Paper presented at the American Educational Research Association annual conference. Chicago, IL.
- Biles, G. E., & Tuckman, H. P. (1986). *Part-time faculty personnel management policies*. New York, New York: American Council on Education/Macmillan.
- Brint, S., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America, 1900-1985*. New York: Oxford University Press.
- Cameron, K. (1984). Organizational adaptation and higher education. *Journal of Higher Education*, (55), 2 (March/April), 122-144.

- Carnoy, M. (2000). *Sustaining the new economy: Work, family, and community in the information age*. Cambridge, Massachusetts: Harvard University Press.
- Castells, M. (2000). *The rise of the network society* (2<sup>nd</sup> ed.). Malden, Massachusetts: Blackwell.
- Cohen, A. M., & Brawer, F. B. (1996). *The American community college* (3rd ed.). San Francisco: Jossey-Bass
- Dougherty, K. J. (1994). *The contradictory college: Conflicting origins, impacts, and futures of the community college*. Albany, NY: State University of New York Press.
- Dubson, M. (Ed.) (2001). *Ghosts in the classroom: Stories of adjunct faculty—and the price we all pay*. Boston: Camel's Back Books.
- Eliason, N. C. (1980). Part-time faculty: A national perspective. In M. H. Parsons (Ed.) *Using part-time faculty effectively*. New Directions for Community Colleges No. 30. San Francisco: Jossey-Bass.
- Frye, J. (1994). Educational paradigms in the professional literature of the community college. In J. Smart (Ed.), *Higher education: Handbook of theory and research*, Vol. X, pp. 181-224. New York: Agathon Press.
- Gappa, J. M., & Leslie, D. W. (1993). *The invisible faculty: Improving the status of part-timers in higher education*. San Francisco: Jossey-Bass.
- Gappa, J. M., & Leslie, D. W. (1997). Two faculties or one?: The conundrum of part-timers in a bifurcated work force. American Association of Higher Education, Inquiry No. 6.
- Haeger, J. D. (1998). Part-time faculty, quality programs, and economic realities. In D. W. Leslie (Ed.) *The growing use of part-time faculty: Understanding causes and effects*. New Directions for Higher Education No. 104. San Francisco: Jossey-Bass.
- Jacobs, F. (1998). Using part-time faculty more effectively. In D. W. Leslie (Ed.) *The growing use of part-time faculty: Understanding causes and effects*. New Directions for Higher Education No. 104. San Francisco: Jossey-Bass.
- Karabell, Z. (1998). Adjuncts and community colleges. In *What's college for? The struggle to define American higher education*. (pp. 191-211). Basic Books.
- Levin, J. S. (2001). *Globalizing the community college: Strategies for change in the twenty-first century*. New York, New York: Palgrave.

- Marginson, S., & Rhoades, G. (2002). Beyond national states, markets, and systems of higher education: A glonacal agency heuristic. *Higher Education*, 43, 281-309.
- Morgan, G. (1997). *Images of organization*. Thousand Oaks, CA: Sage Publications.
- Osterman, P., Kochan, T. A., Locke, R. M., & Piore, M. J. (2001). *Working in America: A blueprint for the new labor market*. Cambridge, MA: MIT Press.
- Rhoades, G. (1996). Reorganizing the faculty workforce for flexibility: Part-time professional labor. *The Journal of Higher Education*. 67:6 (November/December), 626-659.
- Rhoades, G. (1998). *Managed professionals: Unionized faculty and restructuring academic labor*. Albany, NY: State University of New York Press.
- Roueche, J. E., Roueche, S. D., & Milliron, M.D. (1995). *Strangers in their own land: Part-time faculty in American community colleges*. Washington, D. C.: Community College Press.
- Selfa, L. A., Suter, N., Myers, S., Koch, S., Johnson, R. A., Zahs, D. A., Kuhr, B. D., & Abraham, S. Y. (1997). *1993 national study of postsecondary faculty methodology report*. Washington, D.C.: National Center for Educational Statistics, NCES 97-467.
- Slaughter, S., & Leslie, L. L. (1997). *Academic capitalism: Politics, policies, and the entrepreneurial university*. Baltimore, MD: Johns Hopkins University Press.
- Slaughter, S. & Rhoades, G. (in press). Academic capitalism in the new economy. Baltimore: Johns Hopkins Press.
- Smith, V. (2001). *Crossing the great divide: Worker risk and opportunity in the new economy*. Ithaca, New York: Cornell University Press.
- Thomas, S. L., & Heck, R. H. (2001). Analysis of large-scale secondary data in higher education research: Potential perils associated with complex sampling designs. *Research in Higher Education*, 42:5, 517-540.
- Toutkoushian, R. K., & Bellas, M. L. (2003). The effects of part-time employment and gender on faculty earnings and satisfaction. *The Journal of Higher Education*. 74:2 (November/December), 172-195.
- Tuckman, H. P. (1978) Who is part-time in academe? *AAUP Bulletin*, 64(December, 1978), 305-315.

- Valadez, J. R., & Antony, J. S. (2001). Job satisfaction and commitment of two-year college part-time faculty. *Community College Journal of Research and Practice*, 25: 97-108.
- Wyles, B. A. (1998). Adjunct Faculty in the Community College: Realities and Challenges." In D. W. Leslie (Ed.) *The Growing Use of Part-time Faculty: Understanding Causes and Effects*. New Directions for Higher Education No. 104. San Francisco: Jossey-Bass