

2010

Trends of Professionalization of Nursing Faculty from 1993-2004

Wendy Wen-Chun Lin-Cook
Seton Hall University

Follow this and additional works at: <https://scholarship.shu.edu/dissertations>



Part of the [Higher Education Commons](#), and the [Nursing Commons](#)

Recommended Citation

Lin-Cook, Wendy Wen-Chun, "Trends of Professionalization of Nursing Faculty from 1993-2004" (2010). *Seton Hall University Dissertations and Theses (ETDs)*. 1688.
<https://scholarship.shu.edu/dissertations/1688>

Running head: TRENDS IN NURSING PROFESSIONALIZATION

**TRENDS OF PROFESSIONALIZATION OF NURSING FACULTY
FROM 1993-2004**

by

Wendy Wen-Chun Lin-Cook

in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

Seton Hall University

2010

Members of the Supervisory Committee:

Dr. Martin J. Finkelstein

Dr. Joseph Stetar

Dr. Muriel M. Shore


SETON HALL UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
OFFICE OF GRADUATE STUDIES

APPROVAL FOR SUCCESSFUL DEFENSE

Doctoral Candidate, **Wendy Wen-Chun Lin-Cook**, has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ph.D.** during this **Spring Semester 2010**.

DISSERTATION COMMITTEE
(please sign and date beside your name)

Mentor:
Dr. Martin Finkelstein  3/31/10

Committee Member:
Dr. Joseph Stetar 

Committee Member:
Dr. Muriel Shore 

Committee Member:

External Reader:

The mentor and any other committee members who wish to review revisions will sign and date this document only when revisions have been completed. Please return this form to the Office of Graduate Studies, where it will be placed in the candidate's file and submit a copy with your final dissertation to be bound as page number two.

TRENDS IN NURSING PROFESSIONALIZATION 1

Abstract

This study examined the development of nursing academic faculty at the college and university level as a profession using restricted data-sets from 1993-2004 of the National Study of Postsecondary Faculty (NSOPF:93, NSOPF:99 and NSOPF:04). Faculty professionalization is defined within this study through characteristics in academic credentials, faculty workload and employment patterns. The study population consisted primarily of full-time educators working at four-year institutions. Also examined in this study are different levels of professionalization between nursing academic faculty and other academic faculty groups, as well as between nursing educator subgroups. Tenure, rank and institution types were analyzed.

TRENDS IN NURSING PROFESSIONALIZATION 2

Acknowledgement

A proverb states that it takes a village to raise a child; the same is true for the creation of a dissertation. Countless people were there for me during the writing of this dissertation and I am truly thankful for all their love and support.

I would like to first of all acknowledge my dissertation committee. Dr. Finkelstein has been extremely patient and supportive. He is a fountain of knowledge on issues related to faculty and I am fortunate to have him as my mentor. I am also thankful for Dr. Stetar and Dr. Shore, both whom lent insights to my research that made it better.

I was luck to not be alone on this scholarly journey. Miriam Lyons Frolow and Kirsten Tripodi, my study buddies were there too. Thank you for being there to feed me words of encouragement and delicious salads when I thought it was not possible to go on. Jerry Trombella, a good friend, holds the record of most readings of this dissertation. I am looking forward to continue my academic journey with all of you.

My parent's decision to immigrate to United States so their children can have a chance at a better life is one of the motivating factors for me to obtain a doctoral degree. Thank you mom and dad for your sacrifices, I hope I made you proud.

Most importantly, I want to thank my husband, Andrew Cook, whose patience and understanding I took for granted during the years it took me to complete this dissertation. Thank you dear, I promise I will start working on those laundries any day now.

Table of Contents

ABSTRACT	1
ACKNOWLEDGEMENT	2
TABLE OF CONTENTS.....	3
TABLE OF TABLES.....	5
CHAPTER 1. INTRODUCTION	6
PROBLEM STATEMENT	8
OVERVIEW OF THE STUDY	8
SIGNIFICANCE OF THE RESEARCH	9
PURPOSE OF THE STUDY	10
ORGANIZATION OF THE DISSERTATION	11
CHAPTER 2. REVIEW OF RELEVANT RESEARCH AND THEORIES.....	13
PROFESSIONALISM	14
DEVELOPMENT OF AN ACADEMIC PROFESSION	21
HISTORICAL OVERVIEW OF NURSING EDUCATION.....	25
DOCTORAL DEGREES IN NURSING	39
NATIONAL NURSING SHORTAGE	44
CONCLUSIONS.....	48
CHAPTER 2. RESEARCH DESIGN.....	50
OVERVIEW OF THE CHAPTER	50
METHODOLOGY AND ANALYSIS	50
RESEARCH QUESTIONS.....	51
CONCEPTUAL FRAMEWORK & HYPOTHESIS.....	52
Academic Credentialing	56
Faculty Workload	59
Employment Patterns/Career Paths	59
Comparative Analysis with Other Faculty Cohorts	61
Nursing Subsets	64
SOURCES OF EVIDENCE.....	69
NSOPF:93.....	69
NSOPF:99.....	70
NSOPF:04.....	71
LIMITATIONS OF THE DATABASE.....	71
Limitations of the Research Design.....	73
SUMMARY	75
CHAPTER 4. RESULTS	77
OVERVIEW	77
DESCRIPTIVE ANALYSIS OF NURSING FACULTY	77
Academic Credentialing	78
Scholarly Output.....	81
Faculty Workload	85
Employment Patterns/Career Paths	88
Summary of Nursing Faculty.....	93
DESCRIPTIVE COMPARATIVE ANALYSIS OF NURSING ACADEMIC FACULTY VS. OTHER ACADEMIC FACULTY GROUPS	94
Academic Credentialing	94
Scholarly Output.....	96
Faculty Workload	98

TRENDS IN NURSING PROFESSIONALIZATION 4

Employment Patterns/Career Paths	100
DESCRIPTIVE COMPARATIVE ANALYSIS OF SUBGROUPS OF NURSING ACADEMIC FACULTY	104
Faculty Credentialing.....	104
Scholarly Output.....	106
Faculty Workload	109
Employment Patterns/Career Paths	111
SUMMARY	117
CHAPTER 5. CONCLUSIONS AND IMPLICATIONS.....	118
SUMMARY AND CONCLUSIONS.....	118
IMPLICATIONS FOR POLICY AND PRACTICES	120
RECOMMENDATIONS FOR FUTURE RESEARCH	123
REFERENCES.....	125
APPENDIX A: TERMINOLOGY	134
TERMINOLOGY	134
NURSING ACADEMIC TERMINOLOGY.....	135
APPENDIX B: APPENDIX TABLES.....	138
APPENDIX C: FACULTY SELECTIONS	209

TRENDS IN NURSING PROFESSIONALIZATION 5

Table of Tables

TABLE 0.1 NURSING FACULTY ACADEMIC CREDENTIALS, 1993 - 2004.....	78
TABLE 0.2 NURSING FACULTY SCHOLARLY OUTPUT, 1993 - 2004.....	81
TABLE 0.3 NURSING FACULTY WORKLOAD, 1993 - 2004.....	86
TABLE 0.4 NURSING FACULTY EMPLOYMENT PATTERN/CAREER PATH, 1993 - 2004	89
TABLE 0.5 NURSING FACULTY SATISFACTION REGARDING THEIR INSTITUTION DUTY & JOB, 1993 - 2004.....	92
TABLE 0.6 FACULTY CREDENTIAL BY SELECTED DISCIPLINES, 1993 - 2004.....	94
TABLE 0.7 FACULTY SCHOLARLY OUTPUT BY SELECTED DISCIPLINES, 1993 - 2004.....	96
TABLE 0.8 FACULTY WORKLOAD BY SELECTED DISCIPLINES, 1993 - 2004.....	99
TABLE 0.9 FACULTY CAREER PATH BY SELECTED FIELDS, 1993 -2004.....	100
TABLE 0.10 FACULTY ACADEMIC CREDENTIALS BY NURSING SUB-COHORTS, 1993-2004	104
TABLE 0.11 FACULTY SCHOLARLY OUTPUT BY NURSING SUBCOHORTS, 1993 - 2004....	106
TABLE 0.12 FACULTY WORK ALLOCATION BY NURSING SUBCOHORTS, 1993 - 2004.....	110
TABLE 40.13 FACULTY CAREER PATH BY NURSING SUBCOHORTS, 1993 - 2004	111

CHAPTER 1. INTRODUCTION

There are two main forces that have shaped the nursing profession as it is known today. First and foremost, there is internal and external pressure on the nursing profession to advance perceptions of the field through higher education institutions. A more recent force, just as pervasive, is the unrelenting shortage of practicing nurses¹, which has exerted an increasing demand on existing educational facilities and faculty.

Since the early twentieth century, the nursing profession has been trying to recast itself from a vocation to a profession (Committee for the Study of Nursing Education U.S., 1984). The shift of nursing education from hospital settings to within colleges and universities illustrates some of the professionalization process.

This shift to the higher education level is recent. In 1923, Yale University developed the first autonomous nursing college in the United States, "...with its own Dean, faculty, budget and degree meeting the standards of the university and on a parity with the other schools and colleges of the University..." ("Lux Et Veritas: History and contributions of the Yale University School of Nursing 1923," 2007, p. 23). Since then, there has been a steady expansion of higher education in nursing, from an increase in the number of undergraduate and graduate nursing degrees being offered to the number of doctoral degrees in nursing (Ray, 1986).

While the process of professionalization is internal, it can be vulnerable to external forces beyond the control of the discipline. For example, the recent shortage of

¹ The recent recession has decreased the demand of nurses and put an end to the decade long chronic nursing shortage. However, the 2009 study by Peter Buerhaus and associates have found that the decrease is temporary in nature, and as the existing nurse population continues to age, the country will face a projected nurse shortage of 260,000 by 2025 (Buerhaus, Auerbach, & Staiger, 2009; "Recession Temporarily Easing Nursing Shortage," 2009).

TRENDS IN NURSING PROFESSIONALIZATION 7

practicing nurses has impacted the experience of academic nursing faculty as higher education struggles to meet the increasing demand. Thanks to advances in medical technology and a dramatic increase of adults living beyond age 85, there is a rapidly increasing demand for geriatric care professionals working in hospitals and other health care facilities (Goodin, 2003). This growing need for nurses in the field puts a strain on nurses working both in academia and as practicing nurses. In turn, a tug-of-war has been created in the available American nursing pool between academia's need to attract high-quality nurses to teach in colleges and universities and hospitals' requirements to keep and attract practicing nurses. Further, higher education also needs qualified faculty to advance the curriculum in order to address the need to educate students in emerging technologies, while at the same time, hospitals and other health care facilities need staff who are able to implement new technology in the daily care of patients.

Between 1992 and 2004, the demand for trained nurses within hospitals and health care facilities had outstripped the capacity of higher education institutions to deliver qualified graduates to meet the need. In order to fill the gap, nursing programs must be expanded; therefore, more nursing faculty are required. This increase has spawned many challenges (Evans, 2005). Beyond the nursing shortage, other variables that negatively affect administrators' abilities to increase nursing faculty numbers in higher education institutions include the departure of current faculty, noncompetitive salaries, escalating costs of graduate study, heavy faculty workloads and attractive nonacademic career choices (*Faculty shortages in baccalaureate and graduate nursing programs: Scope of the problem and strategies for expanding the supply*, American Association of Colleges of Nursing, 2003).

TRENDS IN NURSING PROFESSIONALIZATION 8

Problem Statement

Academic nursing faculty promote higher education as part of the greater effort to elevate nursing to a professional status. This process of professionalization through enhancing the level of education of teaching faculty is reflected in the shift from a focus on simply achieving licensure to obtaining a doctoral degree specifically in the field of nursing. Also, emphasis has been placed within the discipline to focus on academic research and publication of scholarly work.

With the external practicing nurses' shortage, there has become a shortage of academic nursing faculty. How has the field of nursing responded in order to meet the conflicting demands of a desire to improve the quality of faculty and also to address the quantitative need for more baccalaureate-level nursing graduates? How has such response compared to other academic fields, and has the response been uniform among different subsectors within the field of nursing?

Overview of the Study

To put the academic nursing faculty's situation in context, this study's analysis compared the data for the field available from 1993-2004 with statistics for other faculty groups during the same time period. The aim of this review was to determine if trends observed in the data sets are part of an overall higher education trend, or a phenomenon localized to only the nursing professorate. For example, the author of this study suspected that academic nursing faculty spent less time on research than other faculty groups.

This study was aimed at determining if there is, in fact, segmentation among academic nursing faculty and shifts in professional development, as compared to other academic faculty groups using trend analysis from the National Survey of Postsecondary Faculty (NSOPF). This breakdown is discussed in the methodology section of the paper. Martin Finkelstein and his colleagues utilized NSOPF, a series of datasets which the United States Department of Education's National Center for Educational Statistics (NCES) collected in 1992-93, 1998-99 and 2003-04, as part of their analysis of longitudinal faculty trends (Finkelstein, Seal, & Schuster, 1998; Schuster & Finkelstein, 2006).² The NSOPF datasets were chosen for this study because of the national scope, longitudinal nature of the surveys, and with sample sizes large enough to analyze specific fields such as nursing.

Significance of the Research

Much published research is devoted to studying and identifying the causes of the nursing shortage. If there is a long-term impact from the nursing shortage on the professionalization of academic nursing faculty, it is not immediately clear. This study found that this is a significant point in the professionalization process, with the field's hitting key milestones identified within professionalization theory. This study examined the important question of whether or not the nursing shortage occurring at this critical developmental stage will have a long-term impact on the professional development of the field.

The knowledge gained from this study may provide relevant policy suggestions for dealing with the academic nursing faculty shortage resulting from the recent

² See Limitations of the Database.

practicing nurse shortage. The goal is to create informed policies that alleviate the pressures from the shortage and create a support system to maintain the professionalization of academic nursing faculty, and thus nursing as a whole.

Purpose of the Study

The purpose of this study is evident in its analysis of pertinent research materials, providing new insights into the future of nursing as an academic profession. This study examined the extent and ways in which the nursing shortage may be impacting the professionalization of academic nursing faculty. It also explored whether there is a segmentation within nursing academic faculty.

This study took the position that it is probable that a faculty shortage would skew the normal employment pattern. Competition for quality faculty among hospitals, health care facilities, and higher education institutions, and the lure of other career opportunities with more competitive salaries, make it increasingly difficult for administrators to be able to hire quality academic faculty. Finding a scarcity of qualified applicants can have an impact on the nursing profession as a whole. At the same time, a shortage of faculty can result in an increase in overall workload for existing faculty, particularly in three core areas of responsibility: teaching, research and service. The academic faculty shortage can create pressure on the individual to spend more time meeting teaching demands, at the expense of participating in scholarly work and service activities (such as maintaining office hours for students). Although a redistribution of academic nursing faculty's time within its core responsibilities help meet short-term teaching needs and increase production output, the long-term consequence may be the lowering of professional standards.

While more time needs to be allocated to teaching, professional pressures within the higher education community compels academic nursing faculty to maintain, and even increase, levels of research and service. A potential ramification of this work overload may be faculty dissatisfaction or "burnout." Faculty leaving academic jobs as a result of this dissatisfaction further depletes the number of qualified academic nursing faculty. Current literature collected for this study suggested that the pressure to increase productivity is not uniformly felt among different segments of the nursing faculty. The population of the nursing faculty that face the most pressure in increased teaching load, are nontenured faculty, faculty working at two-year institutions, and new faculty³.

Pressures of an increased teaching load appear to impact "core" faculty, defined as "tenured academic nursing faculty working full-time in four-year academic institutions," less than they impact nontenured academic nursing faculty working part-time in two-year institutions. This disparity of impact on subgroups of academic nursing faculty demonstrates a two-tiered work environment and professional experiences, which can chip away at a field's sense of community or harmonious group identity. If this segregation is allowed to continue on its current path and the nursing professorate's group identity splinters, it could potentially compromise the field's professional development.

Organization of the Dissertation

This dissertation is constructed in four chapters. Chapter 1 was the introduction chapter. Chapter 2 of the dissertation focuses on literature views of the topics of professionalization as a whole, and specifically on academia, a history of nursing education, and nursing shortage. Built upon the literature review is the research design,

³ See Review of Relevant Research and Theories for further citations.

which is described in Chapter 3. It consists of hypothesis, conceptual framework and source of evidence. Chapter 4 reports the findings of the study. The final chapter provides the conclusion and recommendations.

CHAPTER 2. REVIEW OF RELEVANT RESEARCH AND THEORIES

The literature review will reveal two major forces during the examined period from 1993 to 2004 that influenced the development of the nursing profession. The first force identified is the nursing profession's long-term effort to achieve equal standing in other fields in the higher education arena. The second identified force is the chronic nursing shortage. These two forces exerted great influence on the nursing profession during this time frame, and this study proposed that it would likely have an impact into the future.

The literature review will be subdivided into four main sections: professionalization theory, the development of the academic profession, the advancement of the nursing profession within higher education, and the nursing shortage. Research materials selected for this study represent the works of some of the world's preeminent social theorists studying the process of professionalism and the development of the nursing field.

Authors represented include the following: American sociologist Talcott Parsons of Harvard University; Elliot Friedson, Professor Emeritus of Sociology at New York University and Presidential Scholar at the University of California, San Francisco; John Archer Jackson, Fellow Emeritus of Trinity College Dublin, formerly Professor of Sociology at Trinity College Dublin; Harold L. Wilensky, Professor Emeritus of Political Science at the University of California, Berkeley, and contributor to *The Huffington Post*; Wilbert Ellis Moore, who was elected the 56th President of the American Sociological Society; Ida Harper Simpson, Sociology Professor Emeritus of Duke University, after

whom the eponymous Undergraduate Writing Award from the Department of Sociology at Duke was named; William Josiah (Si) Goode, the 63rd President of the American Sociological Association; British lecturer and sociology professor Geoffrey Millerson; Rue Bucher, who was a Professor of Sociology at the University of Illinois until her death in 1985; Anselm Leonard Strauss, known internationally as a medical sociologist for his work as codeveloper of grounded theory used widely in nursing, social work, education, and for his work consulting with associations such as the World Health Organization; German-Israeli-American sociologist Amitai Etzioni, who was a sociology professor at Columbia University and later a Thomas Henry Carroll Ford Foundation professor at Harvard Business School, known for his communitarian movement and his Communitarian Network; and Magali Sarfatti Larson, who is Professor and Chair of Sociology at Temple University.

Professionalism⁴

Advancement toward industrialized societies has historically resulted in more complex social structures and the need for people to acquire more specialized knowledge to deal with that level of complexity (Weber, Henderson, & Parsons, 1947). In the postindustrial World War II economy, the United States transformed structurally from an industrial to a knowledge-based economy.

Movement to a knowledge-based economy places increasing value on "ideas, and the ability to manipulate them," more than on "traditional factors of economy" such as land, capital and labor ("The knowledge factory: A survey of universities," 1997). Those who possess this knowledge became part of a new social class, the professional class.

⁴ The section is based on materials presented in researcher's unpublished Assessment Exam (2006).

TRENDS IN NURSING PROFESSIONALIZATION 15

Professionals within an occupational field developed a greater sense of autonomy in executing work and banded together to form field-specific societies, including associations, publications and accreditation organizations (Jackson, 1970, p. 5).

Talcott Parsons furthered attempts to theorize and characterize the professionalization process around World War II, when he described the contradictory nature of professions within the context of the larger society (Freidson, 1994). Most of the early theories of functional sociologists focused on the descriptive analysis of "the profession" and the steps leading to professionalization. Chiefly, each profession has been viewed as an individual social organism which, while different from others, shares core characteristics that can be examined at different stages of a developmental cycle.

Characteristics vary from one profession to another; this is true even within subgroups of the same profession. The evolution within a field may not always be linear or consistent for all its members, which can sometimes lead to internal struggles or splintering. Eliot Freidson defined professionalization as:

A process by which an organized occupation, usually but not always, by virtue of making a claim to special esoteric competence and out of concern for the quality of its work and its benefits to society, obtains the exclusive right to perform a particular kind of work, control training for and access to it, and control the right of determining and evaluating the way the work is performed (1973, p. 22).

These professionalization activities are geared as much for the profession's existing and future members as for the external community. Creating a public definition helps to separate the profession from the general public and creates a sense that social and economic rewards for specialized knowledge may be sought. Consequences of this separation from the populace are the segmentation of social and economic groups within the society (Larson, 1977).

In describing the attributes of a profession, John Archer Jackson stated, "All occupations develop a culture, a terminology, a set of rules of craft, learning modes and dispositions. Many develop protective associations or guilds, organized associations or trade unions, which act to institutionalize a given position in the occupational structure and further service to define the relationship to a wider social structure" (1970, p. 8).

Harold L. Wilensky studied the history of eighteen different occupations to establish a generalized evolution of professional qualities. Based on his study (1964), Wilensky determined the following five steps that are frequently observed in the professional process:

1. A profession becomes a full-time occupation.
2. Formalized training develops, often eventually occurring in higher-education settings.
3. Professional associations are established.
4. Political agitation reinforces and builds public identity and self-boundaries.
5. A code of ethics is adapted (1964, p. 142, 144-146).

Wilbert Ellis Moore also addressed professionalization theory in his writing (1970). Moore listed the characteristics of a profession, which are strikingly similar to Wilensky's (Moore, 1970, pp. 5-15; Wilensky, 1964, pp. 142, 144-146). These are:

1. Occupation – Full-time employment.
2. Calling – Willingness to follow a specific set of standards, practices and customs.
3. Organization – formation of professional organizations.
4. Education – formalized education

TRENDS IN NURSING PROFESSIONALIZATION 17

5. Service Orientation – rules of competence, conscientious performance and loyalty.
6. Autonomy – Progressed through previously mentioned stages and acquired specialized knowledge/experience with limited outside challenge.

Ida Harper Simpson (1967) also proposed a similar characterization of the professional process. Simpson identified three major phases of the development of a professional:

1. The newcomer to a profession obtains technical/specialized knowledge.
2. The newcomer identifies with senior practitioners.
3. The newcomer internalizes professional values (1967).

Simpson applied her theory to student nurses' experiencing the socialization process of becoming nursing professionals. Simpson found that Step 1 of the process, obtaining technical knowledge, happens during nursing school, while the identification with senior practitioners occurs during on-site education. These experiences created a professional identification for the student nurses.

William J. Goode developed another frequently cited theory of professionalism. Written in 1957, his piece *Community Within a Community: The Professions*, postulated a functional definition of a profession with a focus on the complex interrelationship between the professional organization and the larger society. This holistic approach assumed that the whole of a profession is more or less the same, where the practitioners share "identity, value, definition of roles and interests" (Bucher & Strauss, 1961, p. 325). Goode has separated a professional stance into two core qualities:

1. A basic body of abstract knowledge.
2. The ideal of service.

Some theorists chose to focus on selective aspects of the professionalization process (Millerson, 1964). Geoffrey Millerson's 1964 work, *The Qualifying Associations*, identifies various professional associations in the United Kingdom; such as, the Prestige Association, the Study Association, the Occupational Association and the Qualifying Association. Millerson noted that each association type is in charge of an aspect of the professional organization's identity. The Qualifying Association functions as the enforcer of credentials and training for those who wish to become members of a profession. This leads to the formalization of education as part of a greater attempt to create a uniformed professional identity. The evolutionary process of professionalism occurs as the occupation seeks to obtain a uniform identity through professional association, certification and education.

The second major phase in the development of the professionalization theory was a departure from predecessors' focus on the origins of a profession and its development. Beginning in the 1960s, narrative theories describing the general evolution of a profession dwindled, and emphasis was placed on examining conflicts within individual professions and between professions and the larger society (Freidson, 1994). For example, unlike the functional approach, which viewed the "...profession largely as a relatively homogenous community" (Goode, 1957), Rue Bucher and Anselm Leonard Strauss (1961) offered a "process approach" to the study of professionalism.

The emphasis was on segmentation within a professional population as members with conflicting missions and leads to the development of subspecialties. "We should

TRENDS IN NURSING PROFESSIONALIZATION 19

develop the idea of professionalism as loose amalgamations of segments pursuing different objectives in different manners and more or less delicately held together under a common name at a particular period in history" (Bucher & Strauss, 1961, p. 326).

There is room in this conception for some variation, some differentiation, some out-of-line members, even some conflict; but, by and large, there is a steadfast core which defines the profession, deviations from which are but temporary dislocations. Socialization of recruits consists of induction into the common core. There are norms, codes, which govern the behavior of the professional to insiders and outsiders. In short, the sociology of professions has largely been focused upon the mechanics of cohesiveness and upon detailing the social structure (and/or social organization) of given professions. Those tasks a structural-functional sociology is prepared to do, and do relatively well. (Bucher & Strauss, 1961, p. 325)

Bucher and Strauss discussed the limitation of the concept of one general organism, and suggested that the reality is much more complex (1961, p. 326). Within a professional organization there exist three divisions of intra-professional members: practitioners, administrators and teacher-researchers (Friedson, 1986). Each member is responsible for a different aspect of the organization, with some overlap. The practitioner of a field is focused mostly on the daily operation of his or her own profession. As nonpolicy-making members of the organization, they enforce administrator-enacted policies and rules (Friedson, 1986).

Meanwhile, teacher-researchers focus on defining and classifying knowledge as it specifically pertains to the profession. The teacher-researchers "...control the recruitment, training and certification of their members and, equally as important, formal knowledge itself" (Friedson, 1986, p. 211). The teacher-researcher exerts great influence upon how a profession defines itself internally and how it is presented to the public.

Some theorists, such as Amitai Etzioni, also question the assumption that all occupations have the equal likelihood of developing into professions. In *The Semi-*

TRENDS IN NURSING PROFESSIONALIZATION 20

Professions and Their Organization: Teachers, Nurses, Social Workers, Amitai Etzioni argued that not all fields should, or could, become professionalized (1969). Etzioni based his theory on the notion that one of the key components of "professional authority" is the control of knowledge within the organization. He contended that occupations such as teaching, nursing and social work lack the control needed to enable these fields to develop the knowledge base further. He argued that, without this control, these fields are forced to subjugate themselves to "administrative authority," preventing these occupations from becoming "true professions." Etzioni suggested that the relatively short training period, lack of developed specialized knowledge, and continued exclusion from participation in the medical decision-making process in patient care plans, at the time of his writing in the 1960s, are evidence for his argument. Etzioni believed that occupations such as nursing push to achieve the status of "profession," not because it is necessary, but because of the disadvantages of being perceived as "skilled workers" (1969).

During the social and political upheaval of the 1960s and 1970s, as many previously disenfranchised groups sought socioeconomic advancement, there was a backlash among some sociologists. Etzioni's arguments against the professionalization of various occupations, particularly historically female-dominated fields, were shared among other theorists at the dawn of the postsuffrage Women's Movement. Ronald M. Pavalko (1971), for example, also argued that the professionalization process is not natural or possible for all professions. Sociologist Fred Katz (1969) contributed an essay to Etzioni's 1969 book, in which Katz decreed that the traditional role of nurses is to be a "follower" of the physician, asserting that nurses lack the training or authority for independent problem-solving. He argued that, since the majority of nursing education

takes place in the hospital setting and under the control of hospital administration, the nurses do not have full control over the generation and transfer of its professional knowledge (1969).

Magali Sarfatti Larson (1977) documented the changes in the nursing field's professionalization process following the time periods covered in the writings of Etzioni, Pavalko and Katz, in full swing of the Equal Rights Movement of the late 1970s. She discussed how nursing has moved away from skilled-worker training models to professional education's taking place within higher education institutions. Nursing higher education plays an important role in elevating the field, providing a place for the field to self-monitor and standardize education to the next generation of nurses, to raise the level of professional knowledge, as well as to create an environment that promotes the provision of academic scholarship.

Development of an Academic Profession

One of the stages in the formation of a profession is the formalization of the education of its practitioners (Freidson, 1994). Institutions of higher education play a major role in the process, defining the set of skills and knowledge required for those who wish to become members of the profession, as well as providing a site for professional advancement through teaching and research. The fact that instruction takes place in colleges and universities imparts a perception of legitimacy and competency for both the practitioner and the profession as a whole. For these practitioner-based higher education professions, the education system evolves based on the demands of its practitioner members, but has, in turn, changed the professions that it serves (Larson, 1977; Millerson, 1964). This intertwined relationship can be observed in developing professional fields

such as nursing. As Larson (1977) noted, colleges and universities play a significant role in the professionalization process of nursing, creating opportunities for self-control of the field's knowledge base, advancements in the curriculum and further research in the field.

Higher education becomes a significant part of a field's professionalization when the members of an emerging profession catalog a specific set of core knowledge that all of its practitioners must know to become qualified members. In most instances, the practitioners turn to higher education as the framework for the delivery of core curriculum to its potential practitioners⁵ (Jackson, 1970, p. 5).

Informal methods of training, such as apprenticeships, are gradually replaced with formalized instruction at accredited higher education institutions where the curriculum is standardized and third-party accreditation agencies verify quality. Elevated from vocational roots, emergent fields now navigate new demands as members of the higher education community.

Herein lies one of the major conflicts, tension between the abstract intellectual training (good of and for itself in terms of liberal humane values of education and research) and the instrumental needs of developing actual practitioners involving the awkward and necessary business of allowing the "trained" candidate to come into contact with the object of the exercise (Jackson, 1970, p. 8).

For those practitioners who wish to teach, they are now required to adhere to the set of academic criteria that is commonly expected of higher education faculty, such as an advanced degrees, scholarly publication and research, in addition to the customary requirement of having professional experience. During the initial transition from informal on-site training to formal higher education, the existing practitioners who, themselves, were not taught in the higher education setting, must then retroactively obtain

⁵ Noted exceptions at one time were medicine and law, which built independent guild structures, but have since returned to the higher education model.

these academic credentials that were not required of their predecessors. For those who wish to pursue a career in the professorate, availability of an advanced degree and scholarly publication within their discipline might be limited; they must then find alternative means to meet these academic requirements, while simultaneously developing those outlets for the future practitioners. This new set of academic credentials created an entry barrier for potential faculty, as not all practitioners may be willing or able to acquire necessary academic credentials to be qualified to teach at a higher education level. Furthermore, even as the practitioner manages to obtain a faculty post, he or she is now required to do research and to publish, as these comprise the bedrock of the reward system in higher education (Schuster & Finkelstein, 2006).

This shift to academia has resulted in the creation of an "intergenerational academic credential gap," where the elder generation of professional practitioners often lacks the required academic credentials to train the incoming generation in the new higher education setting. In nursing, for example, these academic requirements sharply reduce the number of nurses who are qualified to fill the growing demand for academic nursing faculty, resulting in a scarcity of qualified personnel. The shortage leads to an increased workload for those who are qualified to teach within the profession and choose to work as academic faculty within the higher education setting. This may lead to issues of job dissatisfaction and "burnout" of the faculty.

Although different professions may have taken different evolutionary paths within the professionalization process, similar developmental stages and characteristics are shared. An examination of the faculty acumen process reveals three distinct developmental stages of the professorate: tutor, teacher professor and modern

professorship (Finkelstein, 1989; McCaughey, 1974). Teaching, research and service, now considered integral parts of the role of the professorate, are relatively modern interpretations of core faculty functions.

During colonial times, the embryonic stages of academic faculty professionalization, young men occupied the baccalaureate faculty positions. These faculty had only recently achieved a bachelor's degree from the same academic institution where they were currently employed. The position was termed "tutor" and this teaching post was considered a transitional post in a man's life before the start of a "true" professional career in fields such as law, ministry or medicine. Because tutors only remained in the position briefly and the curriculum was focused on a more generalized study of "the classics," the tutors were not required to possess a specialized or advanced education in any particular subject. The role for the tutors was "...custodial in nature" (Finkelstein, 1989, p. 81).

By the 1800s, the further development of the professorate resulted in an increased emphasis on the qualifications of the academic faculty. The development of the teacher professor at this time provided students with educators who were usually older than tutors had been, with previous experience, but not necessarily in the subject being taught. Many teacher faculty members remained in the jobs held prior to taking the new academic position, and maintained these external occupational ties. Although professorship was not the first career choice, teacher faculty, unlike tutors, did not see these jobs as temporary; rather, these positions were considered "legitimate" career paths. During this period, two distinct parallel career paths existed for academic faculty: the tutor and the teacher professor. The former did not often graduate into the position of

teacher professor, so the position, limited in its advancement potential, was not seen as a "legitimate" career path.

Later, in colonial times, with the introduction of the concept of graduate studies from Germany, the evolution of academic faculty brought about specialization and graduate studies as part of the academic requirements for the faculty. The characteristics of faculty were modified to include specialization in teaching, the concept of formal preparation, and a dedicated lifetime commitment (Schuster & Finkelstein, 2006). Further evidence of the creation of a learned society includes the movement of faculty from teaching at individuals' alma maters, to teaching at other institutions. It was also during this time period, as the professorate was maturing, that the concept of tenure and a ranking system were developed.

Historical Overview of Nursing Education

The development of nursing education is closely tied to the development of nursing as a profession. Throughout history, culture and civilization around the world have needed people to take on the role and responsibilities of caretakers for individuals who are sick or infirm. The setting and tasks of caretakers can vary based on a society's concept of, or expectations for, patient care. Prior to the late 1800s, the majority of patient care took place within the home, and was the responsibility of the patient's family members. Nurses were called upon only when care was beyond the abilities of the family, or there were no relations available. Nurses engaged in private care were considered in the same socioeconomic class as maids and other domestic help and paid accordingly. There was no governing body to supervise the quality of nursing care or nurses' education. Some women were charged with petty crimes and were offered the chance to become

nurses in lieu of jail time (Fitzpatrick, 1983a; Joel, 2006). Nursing education at the time was comprised of hands-on training and informal apprenticeships (Fitzpatrick, 1983b; Krampitz, 1983).

At times in history, environmental factors such as war called for large-scale organization of nurses to care for masses of wounded troops (Dietz & Lehozky, 1967). At those times, patient care took place in centralized locations with emerging organizational structures.

The Industrial Revolution and urbanization of Western Society accelerated the evolution of the hospital. Patient care was then provided in a centralized setting, creating a constant need for nurses. The role of nurses shifted from private duty caretakers to employees in a hospital setting (Lynaugh, 2002). As hospitals gained acceptance as a venue for providing patient care, the need for a consistent and dependable workforce led to one of the first serious attempts to formalize nursing education. In a hospital organizational structure, the predominantly female nursing population was viewed as cheap labor, whose role was to carry out without question a physician's orders and provide hands-on care (The Committee for the Study of Nursing Education, 1984).

As hospitals grew in complexity, so did nurses' responsibilities. There was a growth in demand for a more formalized and extensive nursing education. Hospitals, which directly benefitted from properly trained nurses, provided a practical venue for the development of formal on-site nursing education (Krampitz, 1983). Early formal nursing education, therefore, was heavily intertwined with the development of hospitals. The influences of hospital administrators and doctors had a lasting impact on the structure of nursing education and discussions of nursing education.

TRENDS IN NURSING PROFESSIONALIZATION 27

In 1873, Louisa Lee Schuyler introduced the first nursing school to the United States, the Bellevue Training School for Nurses, in association with New York City's Bellevue Hospital. Following the opening of the very first nursing school in America, the number of nursing schools grew exponentially. In a span of 25 years, the number of nursing schools jumped from one to hundreds of schools. From 1899 - 1920, the number of nursing school openings grew from 432 to 1,755 schools (Fitzpatrick, 1983b, p. 65; The Committee for the Study of Nursing Education, 1984, p. 188).

Born on May 12, 1820, in Florence, Italy, to English parents, Florence Nightingale, popularly considered the founder of modern nursing, was instrumental in providing the foundation for modern nursing schools (Joel, 2006, p. 12). Her belief that nurses should both deliver prescribed treatments and assist in diagnosing patient symptoms is the blueprint for modern nursing education.

Rare for women at the time, Nightingale received a well-rounded education and was well travelled. Building on her interest in relieving the suffering of others, she began visiting hospitals during her travels at home in England and abroad. She became impressed with the organizational structure of nuns caring for sick patients in some European hospitals. In 1850, she first visited the Institute of Protestant Deaconesses at Kaiserwerth, Germany, a facility created to provide care for people who were destitute, which became a hands-on training environment for nurses. The next year, Nightingale spent four months there training as a nurse. These experiences laid the foundation for her belief in the importance of creating a structured education for nurses.

In Nightingale's design, nursing schools had autonomy from hospitals and functioned as purely academic institutions. The primary objective of the schools she

envisioned was to "train hospital nurses, to train nurses to train others, and to train district nurses (public health nurses) for the sick and poor" (Fitzpatrick, 1983b, p. 64). She felt strongly that nurses should be in charge of training other nurses and in control of the curriculum. She designed a curriculum that included didactic components, which were often overlooked in hospital-based nursing education. Additionally, Nightingale had included in the clinical component experiences outside of the hospital, an important reflection of her vision of the future where nursing would expand beyond the traditional hospital setting. Her recognition of the need for self-control of the knowledge base in the nursing field, of advanced and specialized education, and organization of the field reflects the steps discussed in the development process of a field into a profession, as described in professionalization theory.

At the time, Nightingale's nursing education philosophies met with resistance from external forces, specifically from those who benefitted from having nursing education take place within the hospital setting, the hospitals themselves and physicians. These power players worked against efforts to move nursing education out of the hospitals, limiting the application of Nightingale's reforms. Funding was impeded and physicians and hospitals argued that nurse training should be structured around the needs of physicians, and therefore physicians should control what nurses were taught (Fitzpatrick, 1983b; Miller, 1977).

When Schuyler established the first nursing school in America, it was, as mentioned above, in association with Bellevue hospital. Believers in Nightingale's philosophical view that nursing schools should be independent found that most newly founded nursing schools were unable to staff the schools with qualified nurse educators.

TRENDS IN NURSING PROFESSIONALIZATION 29

The schools found themselves staffed with lecturing physicians rather than nurses (Fitzpatrick, 1983b). Additional sovereignty was lost to hospitals when the nursing schools had to turn to hospitals for funding (Fitzpatrick, 1983b, p. 66).

These hospital-based nursing schools were not designed as higher education institutions; therefore, these schools were not being accredited. The clinical-centered curriculum did little to contribute to advancing the nursing knowledge canon. Most significantly, the nurse-students were treated more as assistants or laborers than students. Hospital administrators and/or physicians required nursing students to log nearly 70 hours of work per week, with very little time off to focus on learning (Fitzpatrick, 1983b). All indications have shown that nursing education at that time was not much more than a trade school, where students were trained in a relatively short period of time, with a set of clinical skills combined with very little time spent in didactic education.

There was little consensus among nursing education leaders concerning the importance of a Bachelor's degree as an entry degree for the nursing profession, and nursing education's transition into higher education continued to move slowly (Fitzpatrick, 1983b). From the early- to mid-1900s, several national sociopolitical factors helped push nursing toward a higher education setting. The Progressive Movement encouraged colleges and universities to actively expand course offerings to include new professions, reflecting the needs of society. As western society became more urbanized and industrialized, the role of the women in society was redefined.

Nursing education's first foray into the college or university landscape was in 1899, when Columbia University's Teacher's College offered the first college level nursing courses with the objective of training nurse-educators (Krampitz, 1983).

Teacher's College hired Adelaide Nutting in 1907 to be the first professor of nursing (Fitzpatrick, 1983b, p. 72). The University of Minnesota's College of Medicine instituted the first baccalaureate diploma program in 1909 (Gray, 1960).

A common characteristic of early college and university nursing programs was that the program was grafted onto an existing academic department such as medicine or liberal arts, which required retrofitting nursing curriculum into existing academic structures. Not all departmental cultures were necessarily conducive to the advancement of the nursing field; some actually hindered the professionalization process, because the nursing profession was still not in control of its own production and distribution of formal knowledge. According to professionalization theory, while a field may gain a perception of "legitimacy" from becoming part of existing professions within higher education settings, a field cannot further its quest to become a "true profession" without first creating its own pool of professional knowledge and controlling the education of future teachers and researchers. Thus, nursing's efforts to achieve professionalization were stalled in this respect.

Other external forces came into play in the development of nursing, such as a sharp increase in demand to qualify nurses during the time of war. World War I created a heavy demand for qualified nurses to tend casualties. The United States entered the war in 1917, with Congress declaring war on April 6. After the war ended in 1919, nurses returned from the war with intensive field experience and armed with a GI Bill for an improved education (Carpenter & Hudacek, 1996; Grace 1978). In 1919, the Rockefeller Foundation invited and sponsored fifty nurses to discuss the issue of nursing education and preparation. Born out of these conference discussions was the Committee for the

Study of Public Health Nursing Education, which included Adelaide Nutting, Annie W. Goodrich and Lillian D. Wald among its members (Varney, 1988). In 1920, the committee was subsequently renamed “The Committee for the Study of Nursing Education.”

In 1923 Josephine A. Goldmark published the committee's findings in a report entitled *Nursing and Nursing Education in the United States, Report of the Committee for the Study of Nursing Education and Report of a Survey*, also known as The Goldmark Report (The Committee for the Study of Nursing Education, 1984). The Goldmark Report recognized the critical need for formalizing the training for nurses and identified lack of financial independence from hospitals as a major barrier for nursing education. In the same year, following the recommendations from the committee, the Rockefeller Foundation donated \$150,000 in funding. The funding was used, under the direction of committee member Annie Goodrich, in the development of the first autonomous nursing school in Yale University (“Lux Et Veritas: History and contributions of the Yale University School of Nursing 1923,” 2007). The success of the program led to a \$1,000,000 follow-up grant from the Rockefeller Foundation in 1929 (Fitzpatrick, 1983b, p. 72).

Even as these advancements for nursing were made within higher education, the struggle to advance the professional status of nursing continued. While higher education programs for nurses were being offered in the early twentieth century, most nursing schools were still affiliated directly with hospitals and under hospital administration and physician control. These individuals did not support the view that baccalaureate degrees were necessary for nurses. Some argued that a bachelor's degree program should be an

addition to existing nursing schools with a curriculum focused on specialized nursing, while basic nurse training remained within the hospital setting. Nurse education advocates argued that the future of nursing education should be housed solely in colleges and universities, where a general bachelor's degree program would serve as the entry-level degree required for all nurses.

While World War I seems to have contributed to the move of nursing from hospital settings to colleges and universities, the circumstances surrounding World War II seem to have had a negative impact on the professionalization process. This massive war and its numerous casualties and heavy casualty rate led to an enormous need for trained nurses. December 8, 1941, the day after the Pearl Harbor attacks, the United States declared war against Japan. The first official United States military action in the Pacific took place on Dec. 15, 1941, when a United States submarine sank a Japanese warship. America became involved on the European front when Hitler declared war on the United States on December 11, 1941. The first United States troops landed in Britain to join the war on Jan 26, 1942. In 1942, the United States government has asked for the training of 125,000 additional nurses to be completed within two years to meet the needs of the war effort (Fitzpatrick, 1983b, p. 74).

In order to meet this incredible demand for nurses as rapidly as requested, the Cadet Nurse Corps was created, which provided students with financial incentives to become nurses. Because of the immediate need for nurses, the higher education community compressed its nursing education program from a four-year baccalaureate study to a two-year Associate's Degree program as a stopgap measure to produce nurses swiftly. Although the design of the newly introduced Associate's Degree program

addressed the short-term nursing shortage, it undermined efforts to strengthen and expand Bachelor's Degree programs for nurses, and further complicated the attempt to standardize nurse training and curriculum.

Even after World War II ended in 1945, the impact of the war effort's change to the professionalization process in nursing continued to be felt. The Associate's Degree program maintained popularity long after the shortage subsided. Even in the twenty-first century, the Associate's Degree program continues to be one of the primary settings for nursing training in the United States ("Nursing shortage prompts new programs," 2006, *Community College Week*, 18 (23)). As the demand for a rapid turn-out of nurses subsided, nurse educators sought to return the focus of nursing education to the higher education setting and four-year programs. In 1948, The Society of Superintendents of Training Schools of Nursing, a precursor to the National League of Nursing Education (NLNE), initially released a statement in support of a general baccalaureate education for nurses. In the meantime, doctors and hospitals continued to exert pressure to direct nursing education to hospital training programs. Following the release of the statement by the Society, further external variables played a part on the professionalization process. North Korea invaded South Korea on June 24, 1950, and the United States was once again at war, with the first American casualties reported in July 1950. Nurses were again in demand. The Korean War ended with an armistice agreement in 1953. In 1954, the Society of Superintendents retracted its 1948 statement supporting baccalaureate education, under immense pressure from the American Hospital Association (AHA) and the American Medical Association (AMA) (Fitzpatrick, 1983b, p. 77).

The American Nurses Association (ANA) did not officially endorse the concept of a Bachelor's Degree for nurses until 1965, fifty-six years after the University of Minnesota christened its first Bachelor's Degree for nurses. This is a significant gap of time, suggesting the ANA had bowed to the exertion of pressure from the AHA and AMA (Fitzpatrick, 1983b, p. 77). From the 1960s to the 1970s, the nursing profession continued to struggle to shed the label "doctor's nurse" to solidify its own professional identity and become an equal participant in the higher education landscape (Lewis, 1976; Reinkemeyer, 1968; Rogers, 1961; Simms, 1977; Thomstad, Cunningham, & Kaplan, 1975).

One of the struggles nurses faced was to generate a pool of qualified nursing faculty to both train and develop nursing science. Michael H. Miller, Associate Professor of Sociology and Sociology in Nursing at Vanderbilt University School of Nursing, found in his 1977 study that, compared to other professionalized fields, such as education and social work, academic nursing faculty were more likely to teach where the faculty members had received graduate training. Although it is common among graduates of an elite college or university to remain to teach at an alma mater, this practice was found within other institutions as the result of a lack of faculty and available graduate programs (Miller, 1977). This perpetuated a negative image of these programs, and a perception that there were low academic standards and a lack of faculty creativity and innovation.

Miller's study was done two years after America pulled out of Vietnam and Saigon fell at the end of a long period of American military involvement and heavy casualties. Conflicting social, political and economic factors may have been variables impacting the professionalization process, such as the aftermath of a long and

controversial war, the Equal Rights Amendment movement's defeat, recession, oil shortages, etc. As the 1980s dawned, a period of economic growth and a time without the kind of nursing shortage created in earlier periods of war, it appeared that nursing as a profession was again beginning to make advances.

Gail Johns Ray did one of the last large-scale studies on the quality of faculty in higher education, written in 1986, and based on data she collected in 1982. Ray's research found that nursing as a profession was placing greater emphasis on scholarly advancement. The movement toward scholarship was in line with the overall trend in higher education. Although never published beyond its dissertation form, Ray's research offers valuable methodology for examining the quality of the nursing profession in higher education. Her study examined faculty variables considered critical to measuring the progress of a profession, such as faculty workload, academic credentials and research.

In the years between Ray's study and the time period examined for this study, 1993-2004, the nursing field underwent drastic changes. Thanks to advances in medicine within the twenty-two years from 1982 to 2004, Americans are more likely to survive episodes of acute illness and are living longer. The average life expectancy in the United States rose from 74.5 in 1982 to 77.8 in 2004. With adults living longer, there became a disproportional growth of Americans aged 85 and older who required essential geriatric care (Goodin, 2003). However, a nursing shortage observed within the period examined in this study imposed a strain on the nursing education system as the demand for nursing education outstripped the educational capacity of higher education institutions.

While conducting this study, the researcher observed that, from 1993-2004, there were three primary pathways through which nursing students obtained the academic requirements to become registered nurses in the United States:

1. A diploma program, often three-year programs, affiliated with hospitals.
2. An Associate's Degree conferred concluding a two-year program at a community college.
3. A Bachelor's Degree awarded upon completion of a four-year program at a college or university (Smith, 2005).

Within the time frame studied, hospital-affiliated Diploma Schools and community college's two-year programs continued to be more attractive alternatives for nursing students than the baccalaureate degree of the four-year institution. Students seemed to find the shorter period of course work and the lower cost appealing. It became clear in this study's observations, however, that each of these alternatives to higher education have disadvantages for the students. While the Diploma Schools do boast ample opportunities for hands-on, practical training, the credits obtained through these programs are not recognized in colleges and universities because the institutions offering the diplomas are not accredited. The community colleges, offering the Associate's Degrees as a result of the nursing shortage in WWII, have significantly condensed curriculum.

Regardless of the specific academic path taken, all nursing students take the same National Nursing Board Examination (NCLEX) for licensure, and upon entering the

practice of nursing, find themselves competing for similar entry-level jobs and for similar salary compensation. Without the economic incentive of significant financial compensation for choosing to invest the time and revenue in a Bachelor's Degree, many students find that shorter and less expensive routes are "legitimate" choices. During the period under review in this study, the number of nursing students in America was rising and the majority of those students were enrolled in community colleges.

The number of students enrolled in community college rose from approximately 60,000 in 1981-82 to 110,000 in 2006-07, a total increase of nearly 83% and 50,000 students (Bureau of Health Professions, 1981, p. 2; National League for Nursing, n.d.; *Source Book-Nursing Personnel*, 1981). Also from 1981-82 to 2006-07, the number of nursing students pursuing a Bachelor's Degree rose from about 35,000 to 60,000 students, an increase of 72% and 25,000 students (National League for Nursing, n.d.).

Interestingly, the number of Diploma School students dropped from roughly 19,000 to 5,000 from 1981-82 to 2006-07, a reduction of 74% and about 14,000 students (National League for Nursing, n.d.). A significant portion of the nurses achieving licensing in 2004 did not have a Bachelor's Degree. Based on observations made during the course of this study, it seems likely that these nurses will face difficulties when attempting to advance their individual careers in the future, as the emphasis on a need for formal higher education grows.

Recently, both the New York Board of Nursing and the New Jersey State Nurses Association began working on requiring nurses to have a Bachelor's of Science in Nursing degree within ten years of when they obtain their nursing license ("New York may require a BSN," 2004; Sofer, 2004; Thrall, 2008). Other indications of a shift in

nursing are also evident. "In 1950, 92% of new RNs graduated from hospital diploma programs, whereas by 2001, only 3% graduated from hospital diploma programs, 61% came from Associate's Degree programs and 36% were baccalaureate program graduates" (National Council of State Boards of Nursing, 2001; *Source Book-Nursing Personnel*, 1981). While the nursing field is embracing the focus on colleges and universities for educating its members, it has a history of hands-on education to overcome perceptually.

The nursing field's origins began at the bottom of the social ladder in many ways. As noted earlier, nurses were historically viewed as domestic servants or laborers.

The general public and the nursing staff enjoy lower status because firstly, they must deal more directly with the profane world (patients not cases) and also because many of their healing functions differ little from those practiced by non-professionals in the general domestic care of the sick. Their professional mystique is thus compromised by the contact they must make with the profane world (Jackson, 1970, pp. 10-11).

Some theorists contend that another factor, historically, making the nursing professionalization process challenging is the perception that nursing is a "women's occupation." Sociopolitical biases against women throughout history have worked against this field, but Patricia D'Antonio points out that since the beginning of the twentieth century nurses are more educated, an important step in the professionalization process (D'Antonio, 2004).

Nursing as a profession within higher education as of the time frame of this study had not yet reached its professional maturity. As Paul Dressel noted, for a subject field to be considered a legitimate field of study in higher education, it must contain some of the characteristics generally associated with academic professions. These include an accepted "general body of knowledge which can at least be forced into some reasonably logical taxonomy" (p. 3), also a "...recognized sequence of experiences for the

preparation of scholars and research workers" (p. 5), and research focused at least in part on basic or theoretical questions (Dressel & Mayhew, 1974).

This study's examination of nursing education has discovered some of the frustrations in the development of a new profession, such as lack of proprietary control of a field's own educational method and content, as well as inconsistent educational requirements. One question that arose was: What was the potential impact of the nursing shortage during the period examined by the study on the development of the profession? Another question was: Would further watering-down of the profession in favor of meeting short-term quantitative needs take place, or had the profession obtained enough internal control to maintain the nursing education standard? Also, would it be able to make further improvements to the education standard?

Doctoral Degrees in Nursing

The development of doctoral programs in nursing evolved as nursing education became a more-established member of the higher education community. The process can be divided, with some overlap at times, into three stages. In the first stage, from the 1920s to the 1950s, nurses obtained doctoral degrees in the field of education to prepare to become teachers or administrators (Grace, 1978). During the second stage, thanks in large part to the GI Bill and federal funding, nurses were trained in related social and natural science disciplines (Grace, 1978). In the third stage, starting in the late 1960s, the nursing discipline advanced within higher education, developing its own theoretical and research bodies of work to offer a doctoral degree in nursing itself.

In 1923, the publication of the Goldmark Report helped to draw attention to the need for educated nurses. It recommended the "...development and strengthening of

university schools of nursing." As a result, doctoral programs for nurses were created. The first doctoral degree for nurses was established at Columbia University in 1924; however, it was offered as a Doctorate in Education and was housed in the School of Education, rather than the division of nursing (Carpenter & Hudacek, 1996). The primary focus of doctoral degree programs in the first stage was "...not upon substantive content of the discipline, but upon the methodologies and knowledge base necessary for teaching and administration of the discipline" (Grace, 1978, pp. 22-23).

New York University began offering a Doctor of Philosophy degree for nurses in 1934. While a philosophy degree may traditionally be seen as a more research-oriented degree, and therefore an important step in advancing nursing in the higher academic arena, this program was housed in the School of Education (Martin, 1989, p. 7). The University of Pittsburgh established its doctoral program in 1954 with its focus on clinical research (Hart, 1989, p. 7).

As discussed earlier in the Historical Overview of Nursing Education, the end of World War II saw the return of veterans looking to utilize the new GI Bill. Higher education experienced increased enrollment in graduate degree programs, creating a greater need for academic faculty with advanced degrees to teach these students. This spurred the second developmental wave of nursing's doctoral education. Nurse-Scientist Programs and Special Predoctoral Research Fellowships, and the recognition among nurse educators that nursing science was not yet fully matured at the doctoral level, nurses were encouraged to obtain Doctoral Degrees in related social and natural science disciplines, sometimes with a minor in nursing.

TRENDS IN NURSING PROFESSIONALIZATION 41

As of 1960, only four doctoral programs in nursing were in existence (Carpenter & Hudacek, 1996; Hart, 1989; Martin, 1989). A prime example of doctoral programs for nurses at this time is the program that existed at the University of Washington, where nurses were encouraged to obtain a Doctoral Degree in Anthropology, Microbiology or Psychology, with a minor in Nursing. There was an apparent assumption that nurses would benefit from being trained in the research methodology of an established discipline and it would allow for cross-discipline research, through which, finally, nursing would develop its own professional mode of inquiries (Tschudin, 1966, pp. 51-52).

Table 2.1: Distribution of Field of Preparation of Doctorally Prepared Nurses
 Distribution of Field of Preparation of Doctorally Prepared Nurses⁶

	1927-1949 N = 24	1950-1959 ⁷ N=75	1960-1964 N=142	1965-1969 N=289	1970-1973 N=324
100					
90					
80					
70	Education 75% N = 16	Education 88% N = 66	Education 70%	Education 57%	Education 61%
60					
50					
40				25% Soc. Sci.	21% Soc. Sci.
30					

⁶ Note. From "The Development of Doctoral Education in Nursing: An Historical Perspective" by H. K. Grace, 1978, *Journal of Nursing Education*, 17, p.22.

⁷ 1950-1959 dataset presented by the author has a mathematical error as the total exceeded 100%.

TRENDS IN NURSING PROFESSIONALIZATION 42

20	12.5 Soc. Sci.		16% Soc. Sci.		
		8% Soc. Sci.	7% Nursing	8% Nursing	10% Nursing
	12.5 Nat. Sci.	7% Nurs. Adm.	5% Rela. Flds.	6% Pub. Hlth	5% Nat. Sci.
		4% Nat. Sci.	3% Nat. Sci.	4% Nat. Sci.	3% Pub. Hlth
10					
0					

As the pool of nursing scholarship grew and nursing science gained common acceptance, the third developmental stage of doctoral programs in nursing education focused on creating a curriculum that focused on the study of nursing itself. In 1971, at Future Directions of Doctoral Education for Nurses, a federally sponsored conference, the attendees agreed that the key factor in the development of doctoral degrees in nursing is research (Martin, 1989). Since the conference, there was a dramatic increase in the number of Doctoral programs in nursing, from twenty-one in 1980 to fifty-nine in 1995 (Carpenter & Hudacek, 1996).

From 1993-2004, when compared to other professional fields, nursing still had a relatively small percentage of practitioners with advanced degrees. In the year 2000, only 10% of the registered nurses within the United States had graduate degrees, with only 9% obtaining a Master's Degree and only 1% obtaining a Doctoral degree (Evans, 2005). As a regulated field, the state mandated that post-secondary nursing faculty be certified as registered nurses and have at least a Master's Degree in nursing to teach nursing courses at higher education institutions, and this mandate further limited the potential pool of educators (Beu, 2004).

The population of nurse educators has further been decimated through retirement, mirroring aging workforce trends in the general population (*Faculty shortages in baccalaureate and graduate nursing programs: Scope of the problem and strategies for expanding the supply*, American Association of Colleges of Nursing, 2003). There were interconnected factors contributing to a faculty shortage during the period, such as:

1. The departure of current faculty.
2. Uncompetitive salaries.

3. The escalating cost of graduate study.
4. The relatively advanced age of doctoral recipients.
5. Heavy faculty workloads.
6. Attractive nonacademic career choices available.

(Beres, 2006; *Faculty shortages in baccalaureate and graduate nursing programs: scope of the problem and strategies for expanding the supply*, American Association of Colleges of Nursing, 2003).

National Nursing Shortage

Throughout the years, the United States has experienced natural cycles of nursing surpluses and shortages because of shifts in demographic trends. As the nation's population increases, there is usually a supply gap of qualified nurses to meet the growth of care needs, since there is a time lag between the increase in popular demand and the time required to train more nurses. What makes the latest nursing shortage, observed during the time period upon which this study is focused, so troublesome was the degree of its severity and the fact that this shortage resulted from issues beyond a simple demographic shift. Also, it is unlikely to self-correct without some external intervention (LaRocco, 2006). Based on the Department of Health and Human Services' report, the nursing shortage was projected to grow continuously into the future from 6% in 2000 to approximately 29% in 2010 (Bureau of Health Professions, 2002).

The cause of the most recent nursing shortage is multifaceted. Like the rest of the general healthcare field, nursing has gone through a drastic change within the last twenty years. The Robert Wood Johnson Foundation's report, *Healthcare's Human Crisis: The American Nursing Shortage*, identified the following factors as the key contributors to the

nursing shortage: aging population, aging nursing workforce, fewer nurses in relation to the size of the general population, lack of diversity, decline in enrollment in nursing discipline studies, expansion in career options for women in other fields, expansion in medical services and complexity, an increase in the level of patient acuity when admitted to the hospital, advances in medical technology increasing survival rates of patients in acute care that may then remain in acute care longer than in previous history, consumer activism, and job dissatisfaction among nurses (2002, pp. 5-6). Advances, not only in general patient care and increased survival rates, but also in geriatric care, have created a disproportional growth in the number of adults aged eighty-five and older who require specific nursing care (United States Census Bureau, 2000).

In order to meet the demand observed for practicing nurses, more students achieving certification as registered nurses are needed. There are various ways in the United States to become a registered nurse. In all fifty states, a set of academic courses is required for a student to be eligible to take a state board exam. The student has two chances to pass the exam and to receive nursing licensure. As discussed earlier in the Historical Overview of Nursing Education, academic requirements can be met through diploma schools affiliated with hospitals, two-year community colleges and four-year colleges and universities. Credits obtained in Diploma Schools are not recognized in accredited colleges and universities, so those who have achieved licensing before Bachelor's Degrees were being encouraged would not be able to transfer credits from previous education, which may discourage some from advancing in the field. Also, without the financial incentives to advance one's education, as also noted in Historical Overview of Nursing Education, nurses without higher education degrees can still find

employment opportunities that are comparable to those of more educated colleagues. As was examined in the Doctoral degrees in Nursing section, as of 2000, only 10% of registered nurses in the United States had any kind of graduate degree, with only 1% achieving a doctoral degree (Evans, 2005). Additionally, the average age of academic nursing faculty with doctoral degrees is rising to almost fifty-four years of age (LaRocco, 2006).

As a clinical discipline, upper-level nursing students participate in a series of practica under close supervision of a nursing faculty member. The states usually regulate the student-to-faculty ratio to make it approximately eight to one (LaRocco, 2006), in order to ensure quality of patient care.

This creates a heavy demand for faculty, and the pool of potential educators becomes very small, since state laws (for example, the State of New Jersey) require that nursing faculty teaching in baccalaureate, associate's and diploma programs be licensed as registered nurses in the state and be graduated from a master's degree program with a major in nursing (New Jersey Board of Nursing, 2005, p.5).

As discussed earlier, there are a significant number of academic nursing faculty and practicing nurses who are leaving the nursing field entirely, often the same base of people who serve in both occupational capacities. As Americans are aging and looking to retire, so too are nurses. Based upon a Year 2000 survey, the average age of a Registered Nurse in the United States was 43.3 (Beu, 2004). In addition, it is difficult for nursing programs to attract and retain academic nursing faculty because of relatively low salary compensation. In New Mexico, the average nursing faculty member's salary was

TRENDS IN NURSING PROFESSIONALIZATION 47

approximately half of what a nurse's with a similar academic background would be working in other sectors (Barsky & Zilke, 2002, p. 5).

In addition to retirement, as has been suggested above, between 1993 and 2004, many nurses chose to leave the nursing field because of career dissatisfaction. Between 1996 and 2000, the education system produced slightly more than 300,000 new registered nurses annually, while losing about 150,000 nurses annually as nurses chose to leave the profession (Beu, 2004). Harsh working conditions and persistent negative perceptions of the profession made it harder for nursing to compete with other fields offering competitive salaries, better benefits and more prestige. Interviews with working nurses found that long hours, unfavorable working conditions and lack of autonomy were serious problems (Duff, 2002, p. 6).

Due to the fact that so many nurses and academic nursing faculty retired and left the field because of the negative working conditions, during the period observed in this study, the need for new teachers was pressing. Recruitment efforts resulted in the faculty pool's becoming heavily lopsided, with a large percentage of staff being junior faculty. At that time, most of the academic nursing faculty were starting out in the beginning stages of a career in higher education. Extending beyond this study's period of focus, at the time of the writing of this dissertation, within the College of Nursing at Seton Hall University, for example, there was only one academic nursing faculty member, out of more than thirty full-time educators, who held the rank of "Full Professor" (Seton Hall University, n.d.).

While the shortage of academic nursing faculty was developing, the number of interested students enrolling in nursing programs rose. As a result, the education system

TRENDS IN NURSING PROFESSIONALIZATION 48

was unable to keep up with the increasing demand of prospective nursing students. In 2004, there were 26,000 qualified applicants who were turned away from entry-level baccalaureate nursing programs because of a lack of capacity (Anonymous, 2005).

The nursing field has faced complex challenges that created a nursing shortage, which in turn created more challenges for nursing's professionalization process. If the shortage continues into the future as predicted, possible solutions include upgrading the image of nurses, starting recruitment efforts and improving conditions to increase retention (Goodin, 2003). Further discussion of possible solutions can be found under the Recommendations for Future Research section.

Conclusions

The literature review touched on the topic of professionalism in general, and specifically on professorate, historical overview of nursing education and licensure, and the nursing shortage.

The theory on professionalism demonstrated that professionalism can be measured in identifiable developmental steps. However, the steps are not always chronological and not all professions are capable of progress through all the necessary steps to become a legitimate profession. The theory examined in the literature review outlined key variables for measuring professionalism.

The second section of the literature review focused on the history of nursing education, which has been shown to be a predominately women's field that was birthed out of roots of domestic servitude and still actively seeking recognition for being a justifiable professional discipline. The literature review demonstrated that nursing discipline is still an emerging profession.

Finally, we have narrowed down the causes of the current nursing shortage and the impact it has on the nursing profession. This section of the literature review on nursing shortage, in conjunction with ongoing nursing professionalization, demonstrated the need to assess nursing professionalization progress in recent years.

CHAPTER 2. RESEARCH DESIGN

Overview of the Chapter

This study sought to examine the professionalization of nursing as a field, in comparison with the other academic disciplines, and within the field, among various subgroups. Chapter 3 will begin by stating the research questions, conceptual framework in conjunction with hypothesis, sources of evidence and the limitations.

Methodology and Analysis

The subject of "faculty" is complex, involving a field of thousands of individuals whose work and working environments are in constant flux. Most research in the field reflects a limited number of variables and observed timeframes. The work of Martin Finkelstein and his colleagues was unique because their research attempted to fashion a broader understanding of academic faculty as a profession through multiple periods in time, using analyses of NSOPF data and other national databases (Schuster & Finkelstein, 2006). This enabled the researchers to examine a longitudinal trend analysis for the evolution of academic faculty from the early 1990s to the early 2000s.

The methodology for this study's analysis is built upon Schuster and Finkelstein's research design using the same NSOPF database. As such, a descriptive analysis was conducted on selected variables that were subjected to such descriptive measures and statistics as frequencies count and means. As part of the trend analysis, this study also engaged in a cross-sectional analysis on stated variables to determine if there was any similarity or difference between academic nursing faculty and other academic faculty groups. Academic nursing faculty, as discussed in the Conceptual Framework section,

were compared to three other faculty subgroups: professional discipline academic faculty group, the allied health faculty group, and the liberal arts and sciences faculty group.

Subgroups within academic nursing faculty were also compared and contrasted. Rank, institution and appointment type distinguished subgroups. The primary focus of this study was on the comparison between full-time faculty who work in four-year institutions because these faculty members are most reflective of core faculty, whom the author of this study believes to be the key players in the professionalization process. This belief was based upon the dual responsibilities of faculty in four-year institutions in generating new knowledge through research and publication and passing on new discoveries made in research to students through teaching.

Research Questions

Q1: What trends, in the years between 1993-2004, can be observed among academic nursing faculty in the professionalization process in terms of faculty credentials, faculty workload and employment statistics?

Q1a: How have the conflicting pressures of professionalization versus the workforce shortage affect nursing faculty output as measured in teaching load, publication rate and services offered, such as holding office hours to meet with students?

Q2: From 1993-2004, how did the situation for nurses, in terms of progress in the professionalization process, compare to that of faculty in other fields, specifically nonmedical health sciences, education, social work, and arts and sciences faculty?

Q3: How do various subgroups within the nursing professorate compare in terms of professionalization patterns, specifically:

- a. Tenured and Tenure-Track versus Nontenured and Nontenure Track Faculty
- b. Junior versus Senior Faculty
- c. Faculty Working at Four-Year versus Two-Year Higher Education Institutions

Conceptual Framework & Hypothesis

The theoretical framework of this study's research was based on the writings described earlier in the professionalization theory section. Geoffrey Millerson (1964) and John Jackson (1970) elaborated on the theory in their work, stating that professionalization centers on a discipline's creating and maintaining a unique identity. A significant part of developing identity is instituting membership standards, both at the point of entry in the field and throughout the duration of the membership. As members conform to the standards of the group, a core identity among members develops and serves to distinguish members from others. Observing the evolution of nursing's professional identity through the most recent significant nursing shortage is a significant indicator of how the shortage has impacted the nursing field as a whole.

As discussed throughout this study, higher education plays a vital role in the professionalization process. Academic faculty, through efforts in constructing curriculum and defining the core knowledge for a discipline, cultivate the next generations of practitioners, and thus help shape a field's professional identity. Faculty engage in research, augmenting the profession's canon, and pass that information on to future members. An assessment of academic nursing faculty, therefore, is integral in understanding the progress of nursing's professionalization.

To put an evaluation of academic nursing faculty into context, this study begins with measuring the similarities between nursing faculty as a group with college and

university teaching faculty in other disciplines. There are two major challenges in implementing this particular approach. The first design challenge is to obtain distinct characteristics of the aggregated faculty population, as it is comprised of fields at various stages of individual professionalization. The second design challenge is presented by the fact that in the last twenty years the professorate as a whole has been in flux (Altbach & Finkelstein, 1997; M. J. Finkelstein, 1984; Rafferty, Sperry, Huffman-Joley, & American Association of Colleges for Teacher Education, 1999; Schuster & Finkelstein, 2006).

In order to address the first design challenge, this study narrowed the aggregated faculty population to focus on three main groups that this study's author believe relate best to academic nursing faculty. These three groups of academic faculty to which nursing will be compared and contrasted are:

1. Nonmedical allied health science faculty, such as faculty specializing in clinical/medical lab sciences, dental support service and mental/social health services.
2. Education and social work faculty.
3. Liberal arts and sciences faculty, such as faculty specializing in literature, fine arts, history and physics.

The allied health science faculty was selected because it and nursing are both subgroups within the field of health science. Medicine was deliberately excluded because it had a role in the historical development of the higher education system and is thus well-established; therefore, it is too disparate from the allied health science group, which is a relative newcomer to higher education. Similar to nursing, allied health care has also been recently experiencing pressures to produce more practitioners. Included in

this study to examine the progression of nursing faculty through comparing and contrasting core characteristics of categories in academic nursing faculty with the other selected faculty groups from 1993 to 2004.

Barnard College of Columbia University Professor of History and Social Sciences Robert A. McCaughey's study of the evolution of Harvard University's academic faculty focused academic professionalization processes during the period from 1821 to 1892. McCaughey identified five major characteristics of fields that have completed enough phases of development to be considered professionalized faculty. These qualities are:

1. Extensive academic training within the profession.
2. Experience in both teaching and research.
3. Working as full-time faculty in a higher-education setting.
4. Participating in a relevant professional/disciplinary organization and its shared research.
5. Identity among members is foremost in belonging to a profession, over and above being an employee of a particular institution (McCaughey, 1974, p. 243).

For the purpose of this study, McCaughey's five dimensions of faculty professionalization were consolidated into three major subcategories:

1. Academic Credentials
2. Faculty Workload
3. Employment Patterns/Career Paths

This modification addressed the lack of data collected in NSOPF on faculty activities outside of the higher education setting and academic organizations⁸.

⁸ See Limitations of the Database on page 70 for more.

"Academic credentials," for the purpose of this study, were quantified through operational Zing variables into three main clusters. The three groups examined are: terminal degrees; scholarly publications and research; and professional experience.⁹

Academic Credentialing

As faculty in a particular field maintain memberships in professional organizations and participate in the research projects of these groups, publish scholarship and build a body of specialized knowledge, the accumulation of this knowledge becomes part of the canon, thus becoming required knowledge for all faculty in that field.

McCaughey, Larson, Jackson and other researchers cited throughout this study, have observed that this evolution of the canon leads to a demand within higher education for faculty with advanced training, specifically doctoral degrees in the field of specialization (See Tables B1 - B3). Therefore, a professionalized academic nursing faculty would possess doctoral degrees in the subject of nursing.

Gail Johns Ray's 1982 study, discussed in the Historical Overview of Nursing Education, found that more junior academic nursing faculty than senior academic faculty had received advanced degrees at that time. She interpreted this as an indication that increased emphasis on academic credentials was a prerequisite for employment, a sign of the professionalization of the nursing field. It does not seem, however, as if the trend continued or extended to all types of nursing faculty. The Nurse Educator 2006 Survey noted a decrease in the number of faculty with doctoral degrees teaching in Baccalaureate and Diploma Programs. This was especially true in Diploma Programs.

⁹ A breakdown of the variables can be found in Appendix B.

TRENDS IN NURSING PROFESSIONALIZATION 57

Based on McCaughey's framework, an examination of academic nursing faculty data from 1993 to 2004 should find the following in the faculty credential cluster:

1. An increase in the percentage of academic nursing faculty who have obtained doctoral degrees (Table B1).
2. An increase in the percentage of faculty who possess a Doctorate when first entering a teaching or instruction position (Table B2).
3. An increase in the number of nursing faculty who obtained a Doctorate in the field of health science (Table B3).
4. A decrease in the number of nursing faculty receiving Doctorates in education or other non-health science disciplines (Table B3).

A profession that has matured in the professionalization process has a specialized knowledge base, and that pool of knowledge drives the basic understanding and study of the profession (Dressel & Mayhew, 1974). A faculty's quantity and quality of scholarly publications and research are often a measuring stick for the advancement of the profession. These accomplishments become key factors in hiring and advancement decisions within colleges and universities. A peer-reviewed journal is more selective in the pieces it publishes, and it is therefore more desirable for faculty to be published within these journals than in journals that were not peer reviewed. Faculty in a matured profession should be more actively involved in basic research and publication in peer-reviewed publications than those in emerging professions (Dressel & Mayhew, 1974).

Because publication is critical to the professionalization process, the study also examined the trends in faculty publication and research output among nursing faculty

data from 1993 to 2004. The following hypotheses were established base on trends on faculty scholarly output:

1. An increase in the average number of scholarly outputs among nursing faculty¹⁰
(See Tables B4 and B5).
2. An increase in the percentage of nursing faculty who are active in scholarly publications¹¹ (Tables B6 and B7).
3. An increase in the average number of peer-reviewed journals published by nursing faculty (Tables B4 and B5).
4. An increase in the percentage of nursing faculty engaged in scholarly activities¹² (Table B8).
5. An increase in the percentage of nursing faculty involved specifically in research of any type (Table B9).
6. An increase in the percentage of nursing faculty researchers engaged in basic research (Table B10).
7. An increase in the percentage of nursing faculty who participated in funded research (Table B11).

As stated previously, as a profession matures there should be an augmentation of professional knowledge through research. All faculty groups should increase their emphasis on quantity and quality of research as one of the key factors for advancement in

¹⁰ Scholarly activities are identified by NOSPF as “Articles (Refereed and Nonrefereed Journals), Book Reviews, Chapters, Creative Works, Book, Textbooks, Report, Career Presentations, Performance, Career Patents, & Computer Software“ (National Center for Educational Statistics, 2003-04, p. 27).

¹¹ Scholarly publications are identified by author as “Articles (Refereed and Nonrefereed Journals), Book Reviews, Chapters, Creative Works, Book, Textbooks, and Report” (National Center for Educational Statistics, 2003-04, p. 27).

¹² Scholarly activities are identified by NOSPF as “research, proposal development, creating writing or other creative works” for the year prior to the survey year” (National Center for Educational Statistics, 2003-04, p. 27).

higher education. All professions should see an increase in scholarly publication, research and scholarly activities and funded research (See Tables B4 - B12).

Faculty Workload

This study examined how much time faculty spent on each of the three primary faculty responsibilities: teaching, research and service. In the professionalization process, one should see all selected academic faculty groups, with an increased emphasis on quantity and quality of research, as one of the factors for advancement within higher education.

The examination of the pressure from an increased workload on the academic nursing faculty in the study Schuster and Finkelstein conducted led the researchers to hypothesize the following regarding faculty workload:

1. An increase in the amount of time nursing faculty spent on research at primary institutions of employment (Table B12).
2. An increase in the amount of time nursing faculty spent on teaching and related activities in primary institutions of employment (See Tables B12 - B14).
3. A decrease in the amount of time nursing faculty spent on service and related activities in primary institutions of employment (See Tables B12, B15 and B16).

Employment Patterns/Career Paths

Under the category of "employment patterns," this study explored evaluations of academic nursing faculty's work histories to determine if there is a viable career path for nurses who wish to pursue a faculty career in higher education. This study's examination was patterned after McCaughey's historical study of Harvard University faculty. That

study found that, as fields within higher education matured, the career path and purpose of the faculty also transformed accordingly. One of the indicators of professionalization is the development of a viable career path from graduate skill to first appointment, and then a progression of status through to full professorate. Among all the data available through the NSOPF database, this study found that the data offers the least amount of information related to tracking and understanding a career path, because NSOPF did not collect extensive career history data.

If academic nursing faculty professionalizes the way that education, social work, allied health and liberal arts and sciences have, one should find an increase in nursing students choosing to become professors of nursing in higher education as a career goal.

1. Nursing and liberal arts and sciences faculty members first entered the higher education work setting at about the same age (Table B17); i.e., the same age at first appointment.
2. The average age of nursing faculty in the workplace was trending closer to the average age of liberal arts and sciences faculty (Table B19).
3. The percentage of nursing faculty with previous employment experience should become closer to the figures for liberal arts and sciences faculty (Table B22).
4. The percentage of nursing faculty in higher education with previous employment experience should become closer to the numbers for liberal arts and sciences faculty (Table B23).
5. The percentage of academic nursing faculty with concurrent employment should become closer to the numbers for liberal arts and sciences faculty (Table B24).

As nursing developed in its professionalization process and began to trend closer to the figures for other faculty, it began modeling the group faculty identity. Based on those observed trends, one can project to see the following trends as being in support of the hypothesis on faculty employment pattern:

1. The average academic nursing faculty beginning full-time instruction positions and receiving Doctorates will be getting younger (See Tables B17- B19).
2. The percentage of full-time nursing faculty's college and university salaries being the primary salary for faculty members will increase (Table B12 & B21).
3. The percentage of faculty with previous job experience in the field of education will increase (See Tables B22 and B23).
4. There will be a decrease in the number of full-time faculty with concurrent employment outside of higher education (Table B24).
5. There will be an increase in full-time faculty satisfaction with instructional duties and other job responsibilities (See Tables B25 and B26).

Comparative Analysis with Other Faculty Cohorts

The second part of the study focused on examining similarity or contrast between nursing faculty and other faculty cohorts. If nursing continues its trajectory toward professionalization, the study should find an increasing similarity between nursing and arts and sciences faculty, as the professionalization theory predicts that the individual practitioner will adopt the characteristics of its core members, represented by arts and sciences faculty. The study also did a comparison analysis of professional and allied health science disciplines. The professional discipline is represented by merging subfields in education and social work, as they are the two disciplines in addition to

nursing that Etzioni identified as a line of work where the practitioners are frequently women and have less control of their occupation (1969). In addition to professional disciplines, the study also examined the allied health field, which consisted of tracks in allied health technologies, administration, public health and other health sciences (Appendix C). The fields are related to nursing, as they are also medical fields and also emerging disciplines. The thinking was that these two categories of disciplines might share similarities with the nursing discipline, and tracing their development through time might yield new insight into the nursing discipline.

Following the same methodology that was described in the Faculty Academic Credentials section to study the nursing discipline as a whole, we hoped to see nursing and other faculty cohorts drift toward a standard set by arts and sciences faculty, if not surpass it:

1. Nursing faculty should have a similar percentage of faculty who are as well prepared professionally as the arts and sciences faculty (Table B01 and B03).
2. Nursing faculty should have a similar percentage of faculty who are professionally prepared prior to beginning a teaching or instruction position as the arts and science faculty (Table B02).

Under the rubric of faculty publications and research output, we should see all faculty cohorts shift to increased emphasis on quantity and quality of research, as one of the evaluating factors for advancement in higher education:

1. Nursing faculty should publish at a similar rate as the arts and science faculty (Table B04).

TRENDS IN NURSING PROFESSIONALIZATION 63

2. Nursing faculty should engage in research and scholarly activities at a similar rate as the arts and science faculty (Table B08 & B09).
3. Nursing faculty should participate in basic and funded research at a similar rate as the arts and science faculty (Table B09 & B11).

Under the rubric of faculty workload, the trend we expected to see in faculty favoring research over teaching:

1. Nursing faculty should spend as much time on teaching as the arts and science faculty (Table B12).
2. Nursing faculty should spend as much time on research as the arts and science faculty (Table B12).
3. Nursing faculty should participate in as many committees as the arts and science faculty (Table B16).

Under the rubric of faculty career path, we should see more nursing faculty choosing higher education as their first career, similar to the arts and science faculty:

1. Nursing faculty should start their current teaching position around the same age as the arts and science faculty (Table B17).
2. The average age of nursing faculty who receive their doctoral degree should be closer to the average of the arts and sciences faculty (Table B18).
3. The average age of nursing faculty should become closer to the average age of arts and sciences faculty (Table B19).
4. The percentage of nursing faculty with previous employment experience should be similar to that of arts and sciences faculty (Table B22).

5. The percentage of nursing faculty with previous employment experience in higher education should be close to that of the arts and sciences faculty (Table B23).
6. The percentage of nursing faculty with concurrent employment should be similar to that of the arts and science faculty (Table B24).

Nursing Subsets

In developing and exploring the procedural framework for this study, it became very clear that, in addition to examining the academic credentials, faculty workload and employment patterns/career paths of academic nursing faculty as a whole and then comparing and contrasting the data against figures for other faculty groups to provide context, there were subgroups within nursing that must be analyzed. In studying the research materials, it was observed that not all subpopulations of the academic nursing faculty progressed professionally at the same pace, with variations among subgroups on the basis of tenure versus without tenure, rank or position within institutions, and the types of institutions where the faculty were employed.

We suspected that most of the advances in professionalization were clustered among tenure-track faculty and faculty working within four-year institutions. Faculty who are not on tenure track and those working in two-year institutions faced limited professional advancement, but experienced having to manage the bulk of the increased teaching load in the field. This study hypothesized that the disparity among academic nursing faculty would cause a splintering within the discipline and dilute the critical development of professional identity.

As discussed earlier, it is indicated in Ray's theory that, as a discipline matures, so too does the educational path for the discipline. As a field evolves into a profession, practitioners will view teaching within the profession in a higher education setting as a worthwhile career path. More practitioners will choose to become faculty as a primary career after graduation and be more academically prepared when doing so. But within the academic nursing field, the disparity between nursing subgroups is having a significant impact on this process.

Within academic nursing faculty's subgroups, the data can be examined within the three categories, as discussed in this section, in which nursing faculty and other faculty groups were compared. Similarities and disparities were examined among different nursing subgroups in academic credentialing, faculty workload and employment patterns/career path.

Under the category of academic credentialing, we expected tenured faculty at four-year institutions to fare the best in terms of progress within professionalization's key measurements. As in the discussion earlier in this section suggesting that research output is a significant measure within academic credentials, it is also a significant measure of academic preparedness and readiness for career advancement within the nursing subgroups. The following was observed among nursing subgroups regarding academic credentialing statistics:

1. Tenured academic nursing faculty were more prepared academically than nontenured academic nursing faculty (See Tables B27 and B28).

TRENDS IN NURSING PROFESSIONALIZATION 66

2. Academic nursing faculty working at four-year institutions were more prepared academically than those working at two-year institutions (See Tables B29 and B30).
3. New nursing faculty were more prepared academically than senior nursing faculty (See Tables B31 and B32).
4. Tenured academic nursing faculty accomplished more research and scholarly activities than the nontenured academic nursing faculty (Table B33 - B36).
5. Nursing faculty working at four-year institutions completed more research and participated in more scholarly activities than those working at two-year institutions (See Tables B37 - B40).
6. New academic nursing faculty achieved more research and participated in more scholarly activities than senior academic faculty did (See Tables B41 - B44).
Employment track, rank and place of employment greatly impacted academic faculty's workload allocation. The following set of hypotheses were tested:
 - a. Tenured nursing faculty spent more time on research than nontenured faculty, who spent more time on teaching (See Tables B45 and B46).
 - b. Academic nursing faculty working at four-year institutions spent more time on research than those working at two-year institutions, who spent more time on teaching (See Tables B47 and B48).
 - c. New nursing faculty spent more time on research than senior faculty, who spent more time on teaching (Table B49 and B50).

In the category of employment patterns/career paths, it is clear that joining the academic nursing faculty is a more desirable career choice when one works within a four-

year institution and is on track to be tenured. Figures for nontenured instructors and those working at two-year colleges indicate fewer opportunities for advancement and the achievement of career satisfaction. Hypotheses on the comparison of subcategories of nursing faculty on employment patterns are listed below:

1. The average age of tenured academic nursing faculty was lower than the average age of nontenured nursing faculty (Table B51).
2. The average age of nursing faculty who were working at four-year institutions was lower than the average age of academic nursing faculty at two-year institutions (Table B52).
3. The average age of new nursing faculty is getting lower, when compared to senior nursing faculty (Table B53).
4. The average age of nontenured academic nursing faculty who obtained doctoral degrees was lower than for tenured faculty (Table B54).
5. The average age of academic nursing faculty working at four-year institutions who obtained a doctoral degree was lower than for those working at two-year institutions (Table B55).
6. The average age of new academic nursing faculty who obtained doctoral degrees was lower than for senior faculty (Table B56).
7. The average age of tenured nursing faculty starting a teaching position was lower than for nontenured nursing faculty (Table B57).
8. The average age of nursing faculty beginning a teaching position at a four-year institution was lower than for those working at a two-year institution (Table B58).

TRENDS IN NURSING PROFESSIONALIZATION 68

9. On average, the new nursing faculty started their current teaching position at a younger age than the senior nursing faculty (Table B59).
10. Tenured nursing faculty members were more likely to have been previously employed, and the experience was most likely to be in higher education, as compared to nontenured nursing faculty (See Tables B60 and B61).
11. Nursing faculty working at four-year institutions were more likely to have been previously employed, and the experience was most likely to be in higher education than was true for those working at two-year institutions (See Tables B62 and B63).
12. New nursing faculty were more likely to have been previously employed, and the experience was most likely to be in higher education than senior nursing faculty (Table B64 and B65).
13. Tenured academic nursing faculty were less likely to have been concurrently employed outside of higher education than nontenured academic nursing faculty (Table B66).
14. Academic nursing faculty working at four-year institutions were less likely to have been concurrently employed outside of higher education than were those working at two-year institutions (Table B67).
15. New academic nursing faculty were less likely to have been concurrently employed outside of higher education than were senior faculty members (Table B68).

Sources of Evidence

The National Study of Post-secondary Faculty (NSOPF) is a series of four surveys conducted in 1989, 1993, 1999, and 2004 by the National Center for Education Statistics (NCES) within the United States Department of Education's Institute of Education Sciences. These surveys are herein labeled NSOPF:89, NSOPF:93, NSOPF:99 and NSOPF:04. The author of this study was able to obtain weighted data from the NSOPF:93, NSOPF:99 and NSOPF:04 in unrestricted format through NCES.

Compared to other national datasets; such as, HERI and CFAT; NSOPF has the most extensive collection of data on the categories that are of most interest to this researcher: demographics, career and educational background, workload activity and career path (Schuster & Finkelstein, 2006). The NSOPF database afforded this researcher the opportunity to examine a wide range of academic and demographic characteristics of the nursing faculty through various categories, such as institution type and rank, for a better understanding of the overall nursing education landscape from 1993 to 2004.

NSOPF:93

The 1992-1993 survey, NSOPF:93, was sent to 31,354 academic faculty out of the total higher education faculty population of 885,796 (as of fall 1992). There was a weighted response rate of 87%, with a returned sample of 27,370 faculty and a usable sample size of 25,780 faculty (Conley, Zimbler, & Synectics for Management Decisions, 1997; Kirshstein, Matheson, Jing, Zimbler, & Pelavin Research Inst, 1997; Kirshstein, Pelavin Research Inst, & et al., 1996; National Center for Educational Statistics, n.d.;

TRENDS IN NURSING PROFESSIONALIZATION 70

Palmer & National Center for Education Statistics, 2000; Selfa, Suter, Koch et al., 1997; Selfa, Suter et al., 1997a, 1997b).

The target nursing population for NSOPF:93 consisted of 389 nursing faculty, based on respondents who self-identified as having at least some instructional duties for credit during the 1992 fall semester, were not on sabbatical, and also selected nursing as the principle field, or the field in which courses were taught. The aggregated population groups for NSOPF:93 consisted of 9,839 faculty defined as respondents who declared having instructional duties, with at least some for credits during the 1992 fall semester, and also selected nursing major as both a professional field and the subject in which courses were taught. This study actively omitted faculty whose principle activity was not teaching, research or clinical service, focusing on the core faculty group whose job responsibilities are in line with the traditional definition of faculty discussion earlier.

NSOPF:99

The 1998-1999 survey, NSOPF:99, was sent to approximately 19, 213 faculty out of the total faculty population of 1,073,667. There was a weighted response rate of 92%, with a returned usable sample size of 17,600 faculty (Abraham, Steiger, Montgomery, Kuhr, Tourangeau, Montgomery, & Chattopadhyay, 2002; Abraham, Steiger, Montgomery, Kuhr, Tourangeau, Montgomery, Chattopadhyay et al., 2002; Berger, Kirshstein, Rowe, American Institutes for Research in the Behavioral Sciences, & National Center for Education Statistics, 2001; National Center for Education Statistics; National Center for Educational Statistics, n.d.).

The target nursing population for NSOPF:99 consisted of 295 faculty who self-declared as having at least some instructional duties for credit during the 1998 fall

semester, were not on sabbatical, and also selected nursing as the principal occupational field and subject in which courses were taught. The aggregated population groups for NSOPF:99 consisted of 8,524 faculty who declared at least some instructional duties for credits during the 1998 fall semester and also selected nursing as the principle field and subject in which classes were taught.

NSOPF:04

The 2003-2004 survey, NSOPF:04, was sent to 35,629 faculty out of the total faculty population of 1,211,800. There is a weighted response rate of 76%, with a returned sample of 35,629 and a usable sample size of 26,110 faculty (Cataldi, Bradburn et al., 2005; Cataldi, Fahimi et al., 2005; R. Heuer et al., 2006; R. E. Heuer et al., 2004; National Center for Educational Statistics, n.d.; Riccobono, et al., 2005).

The target nursing population for NSOPF:04 of 330 was based on respondents who self-declared having some instructional duties for credit during the 2003 fall semester, were not on sabbatical, and also selected nursing as the principle field or focus of courses taught. The aggregated population group for NSOPF:04 of 12,492 faculty were defined based on respondents who declared having instructional duties with at least some instructional duties for credits during the 2003 fall semester, and also selected nursing as principle field or focus of teaching.

Limitations of the Database

The decision to use the NSOPF data sets was made because the data was collected nationally, and at different points in time. Availability of the data enabled this researcher to conduct a longitudinal analysis, an option that would not normally be available to an

individual researcher, given time and resource constraints. However, the decision to use this series of surveys had imposed several limitations on this study's attempt to address the research question.

This researcher faced the challenge of crafting this study's method of inquiry based on the existing survey questions. For example, McCaughey's historical study of Harvard faculty has shown that increasing faculty participation in professional organizations is an indicator of the progression of the professorate. Measuring academic nursing faculty's level of participation in these kinds of professional organizations would contribute to an understanding of the nursing faculty professionalization process. Unfortunately, NCES did not collect any usable statistics on faculty participation in such organizations in the NSOPF studies. This researcher, therefore, was unable to use this part of McCaughey's study in this study to measure academic nursing faculty's progress in this area. This study, instead, relied on the strength of the other variables in the categories of academic credentials, faculty workload and employment patterns, which are better represented in the datasets, to test the hypothesis.

In addition, NSOPF datasets are faculty-based and aggregated in nature, preventing this researcher from identifying single individuals from the dataset or following an individual's progression through time. Hence, this study's author can only infer general overall trends. The consequence of a faculty-based study is that this researcher could not segregate individual institutions based on Associate's, Bachelor's and Master's levels of nursing programs. This study instead categorized institutions using the Carnegie Institute classifications (Carnegie Foundation for the Advancement of

Teaching, 1994), with the assumption that the nursing department's hiring practice will be more in tune with the university type than with its individual program offering.

The NSOPF questionnaire underwent modification from one edition to another, and as a result, some questions that existed in earlier editions were left out of later editions, and vice versa. Even when similar questions appeared consistently in all editions of NSOPF, the wording of the questions might be modified, or the answer keys might have varied, from one survey to the next. There are significant variations in the way core questions have been framed during various administrations of the NSOPF surveys. Changes in semantic and substantive questions may have an impact on the survey's findings, but such impact will be difficult to measure. Whenever possible, this researcher tried to group similar questions from the different datasets, even if these were not worded precisely in the same manner.

Finally, NCES' methodology of sampling based on institutional type may have weakened the validity of data for usage of the same data based on a single academic field or discipline. NCES used Chromy's sequential probability minimum replacement (PMR) sampling algorithm to design the survey and then assigned to each selected institution a measure of size, and the objective of the sampling selection was adequate coverage of different institution types and minority participants. Therefore, the representation of faculty by discipline was not considered (Abraham, Steiger, Montgomery, Kuhr, Tourangeau, Montgomery, & Chattopadhyay, 2002, pp. 25-27; Abraham, Steiger, Montgomery, Kuhr, Tourangeau, Montgomery, Chattopadhyay et al., 2002; R. Heuer et al., 2006, p. 30; Selfa, Suter et al., 1997b, pp. 25-26).

Limitations of the Research Design

There were several limitations as a result of the research design used. First, the decision to use NSOPF datasets has limited this study's observational timeframe from 1993-2004. A longer study period, such as inclusion of NSOPF: 88, would have done a better job in chronicling the development of the nursing discipline and would have shed more light on the future of the nursing discipline¹³.

It is clear from multiple studies using the NSOPF dataset that the existing weight that NCES used has the tendency to oversample (Perna, 2001; Rosser, 2004; Thomas & Heck, 2001; Toutkoushian & Bellas, 2003; Zhou & Volkwein, 2004). This researcher opted not to re-weight any of the datasets because the primary focus of the research was on the interrelationships within the nursing discipline, knowing that by doing so the final analysis might be impacted.

Furthermore, the dataset was severely filtered to obtain the target population and, as a result, the sample population was small¹⁴. This might have altered this study's findings based on the NSOPF surveys, and further examination of a larger population sample might be needed to augment this study's findings.

Finally, although two-year institutions have produced a significant number of new nursing graduates and a significant growth in the number of faculty working in two-year institutions has been observed, a conscious decision was made to exclude these academic institutions from the major part of the study. The rationale was that the intention of the study was to examine how nursing faculty developed professionally through research and teaching, and faculty in two-year institutions do not have the same pressure to complete

¹³ NSOPF: 88 was excluded from the study due to unavailability of the unrestricted data source at the time of the study.

¹⁴ See Sources of Evidence on page 67 for more.

research and participate in scholarly activities, the keys to professionalization. The primary reward system in two-year institutions is based on teaching responsibilities.

This does not mean that faculty in two-year institutions are not important in the development of the profession or do not play a role in the future of academic nursing faculty. Rather, it is a reflection of the complexity of the professionalization process as explored in this study, in sections such as professionalization theory, as well as the historic role that four-year institutions play in the development of a profession, as outlined in other sections, such as the Historical Overview of Nursing Education.

If NOSPF survey developers can design a consistent questionnaire over time, including consistent design, wording of questionnaires, coding of variables and implementing survey in a consistent interval, and all these can encourage more researchers to participate in developing more longitudinal researches.

Summary

A longitudinal, descriptive analysis was employed to better understand nursing faculty's professionalization progress from 1993 to 2004. The datasets used were NSOPF:93, NSOPF:99, and NSOPF:04. Based on the professionalization theory, three clusters of variables were identified: academic credential, faculty workload and employment pattern. These three clusters of variables was examined with the nursing faculty as a whole, in comparison with other selected fields and within nursing subcohorts: faculty in two-year vs. four-year institutions, tenured vs. nontenured and new vs. senior. Except during examination of subcohorts between faculty in two-year vs. four-year institutions, all sample populations consisted of full-time faculty, with some teaching responsibilities, and working in four-year institutions.

TRENDS IN NURSING PROFESSIONALIZATION 76

Once the appropriate variables were identified and grouped based on the hypothesis and the dataset were compiled into tables, percentage of change or other appropriate methods were employed to show trends. As with any other study utilizing existing datasets, notable drawbacks existed and were noted in the limitations section.

CHAPTER 4. RESULTS

Overview

The literature review characterized nursing as a rapidly professionalizing field facing a crisis of shortage in practitioners. The research objective was to see how the field is balancing those competing demands. This chapter will describe insights into the academic nursing faculty's professionalization progression, yielded through findings derived from analysis of NSOPF data from 1993 to 2004, and literature reviews on the topic. The first section will describe the focus on trend analysis of nursing faculty in preselected indicators such as faculty credentials, workload and employment statistics. The following section will describe measures of nursing faculty's progress in comparison with other faculty cohorts, such as nonmedical health science, professional fields and arts and science faculty. Finally, the last section of the review will describe the results of the comparison of nursing professionalization with different subgroups of nursing faculty.

Descriptive Analysis of Nursing Faculty

The first section of this chapter described the analysis of the progression of professionalism of nursing through examining trends in three clusters of marker variables: faculty credentials, faculty workload and employment patterns from 1993 to 2004. The academic nursing faculty population employed for the study were full-time faculty, working in a four-year institutions, and with teaching as their primary responsibility at the academic institution.

Academic Credentialing

To evaluate academic faculty credentials, this study focused upon academic achievements, specifically degrees obtained, and scholarly activities. Professionalization theory suggests that part of the process is the formalization and modernization of training, which a higher-education degree represents. In inspecting the NSOPF datasets to establish how academic nursing faculty are prepared educationally, a conflicting pattern in academic credentials became apparent. Table 4.1 recaps the variables used to assess nursing faculty academic credentials during the period from 1993 to 2004.

Table 0.1 Nursing Faculty Academic Credentials, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
% of faculty with doctoral degree	0.70	0.51	0.50	-0.20
% of faculty possess doctoral degree when first entering teaching profession	-	0.87	0.85	-0.02 ²
% of faculty with doctoral degree in health science (including nursing)	0.49	0.53	0.58	0.09
% of faculty with doctoral degree in education	0.40	0.34	0.26	-0.14

¹ See Table B01 – B03

² % of change is calculated based on 1999 & 2004 dataset

Among academic nursing faculty, the number of respondents to the NSOPF survey who indicated that a Doctoral degree was the highest level of education completed at the time of the survey dropped significantly, from almost 70% of the sample

population in 1993 to 50% in 2004, a drop of 20% (Table 4.1). The percentage of academic nursing faculty respondents who indicated that a Master's degree was the highest level of education completed at the time of the survey rose dramatically from 2% in 1993 to 46% in 1999 and 2004, an increase of 44% (Table B01). The percentage of academic nursing faculty respondents who indicated that they had their first professional degree (Master's degree) was lower in 1999 and 2004 at 2% than it had been in 1993 at 27% (Table 4.1). The decrease in the number of nursing faculty indicating that they had their first professional degree, and the subsequent increase in the number of faculty with Master's degrees, can be reflective of a perception change in the nursing community where once the Master's degree in Nursing was considered a professional degree and a terminal degree, has now been reclassified as a Master's degree but with a Doctoral degree as a terminal degree (Table 4.1). The trend toward a lower percentage of academic nursing faculty with Doctoral Degrees in convergence with the general academic faculty trend, during the same time period, was 67% of overall faculty reporting that they had a doctoral degree, and that increased to 74% in 2004, or an increase of 8% (Table B01). As the percentage of faculty with Doctoral degrees increased, the percentage with Masters degrees decreased proportionately as well (Table B01).

An examination of the timing of completion of a Doctoral degree shows that, among academic nursing faculty who had a Doctoral degree in 1999, about 87% received the degree before obtaining a teaching position (Table 4.1). The percentage remained constant at 85% in 2004, a 2% difference between the two surveys (Table 4.1). Because NSOPF:93 did not include this question in the survey, it is difficult to assess a long-term trend for this particular question. During the same period, the academic

TRENDS IN NURSING PROFESSIONALIZATION 80

faculty in all subjects in four-year colleges and universities saw a decline in the percentage of faculty completing a Doctoral degree before obtaining a teaching position from 44% in 1999 to 36% in 2004 (Table B02).

Another important indicator in the professionalization of a discipline is the type of academic field in which faculty obtained their Doctoral degrees. The professionalization theory has suggested that, as the field becomes more specialized, a Doctoral Degree within its own subject field will become preferable and necessary as the academic faculty become the leading force in further developing their field. Among academic nursing faculty with Doctoral degrees, the percentage who reported having Doctoral degrees in Health Sciences increased from 49% in 1993 to 58% in 2004, an increase of 9% (Table 4.1). During the same time period, the percentage of faculty with Doctoral degrees in Education, the default advanced Nursing degree dropped from 40% in 1993 to 26% in 2004, a net reduction of 14% (Table 4.1). It is a common initial developmental step for the emergent faculty to obtain Doctoral degrees in the field of Education, as, during the initial development phases, the purpose of an advanced degree is to enhance the faculty's role as an educator and there is a general lack of accessibility of advanced degrees in a major of emergent discipline. As the field progresses, there will be more demand for the practitioners and/or faculty to have Doctoral degrees in the given field as the focus at the advance degree level shifts from teaching to research. The general trend toward more nursing educators obtaining Doctoral degrees in Nursing shows signs of an increased emphasis on research (Table 4.1).

A synopsis of a cluster of variables representing academic nursing faculty credentials demonstrated a varied trend: There was a drop in the proportion of faculty

who had Doctoral degrees; however, among those who did, there was an increase in the percentage of faculty who obtained their Doctoral degrees in Nursing (Table 4.1 & Table B03).

Scholarly Output

Another measure of a profession's progress is the quantity and quality of the faculty's scholarly output. The data indicated signs of an increase in scholarly production among academic nursing faculty. However, academic nursing faculty's output still lagged behind academic faculty as a whole, in terms of scholarly and research output (See Tables B4-B11 & Table 4.2). Table 4.2 summarizes the variables gathered to assess academic nursing faculty's scholarly output from 1993 to 2004.

Table 0.2 Nursing Faculty Scholarly Output, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
Average number of career publications	17.65	51.42	40.64	130%
Average number of recent publications	4.84	17.74	6.26	29%
Average number of career presentations and performances	10.57	33.6	27.17	157%
Average number of recent presentations and performances	2.59	10.65	3.47	34%
Average percentage of career publications (%)	0.39	0.34	0.33	-15%
Average percentage of recent publications (%)	0.46	0.39	0.44	-4%
Average percentage of career peer-reviewed publications (%)	0.11	0.16	0.14	27%
Average percentage of recent peer-reviewed publications (%)	0.12	0.15	0.18	50%

TRENDS IN NURSING PROFESSIONALIZATION 82

Average percentage of career presentations and performances (%)	0.6	0.65	0.67	12%
Average percentage recent presentations and performances (%)	0.5	0.6	0.56	12%
Percentage of faculty engaged in scholarly activities	0.56	0.65	0.62	11%
Percentage of faculty engaged in basic research	0.09	0.21	0.32	256%
Percentage of faculty engaged in funded research	0.26	0.56	0.43	65%

¹ See Table B04-B11

NSOPF asked academic faculty to estimate the number of published works completed throughout the respondents' entire academic careers, and then specifically within the two years before the survey. During the time period examined, the academic nursing faculty significantly increased the number of publications¹⁵ throughout their entire career, ranging from 17.65 products in 1993 to an average of 40.64 in 2004, a significant increase of 22.99 products, which is a 130% increase (Table 4.2). Less extreme, but just as noteworthy, was that upward trends were also found in examination of the recent¹⁶ publications by academic nursing faculty from 4.84 in 1993 to 6.24 in 2004, a net increase of 29% (Table 4.2). A majority of the increase for both career and recent publications resulted from an increase in the number of articles published, both peer- and non-peer-reviewed (Table B05 & B06). During the same time period, the number of books and other related publications actually experienced a net decrease

¹⁵ Scholarly publication consisted of publication of peer-reviewed and non-peer-reviewed journals, book reviews, chapters and creative works, book, textbooks and reports.

¹⁶ Within two years prior to the year of the survey.

TRENDS IN NURSING PROFESSIONALIZATION 83

(Table B05 & B06). Another scholarly output category that saw an increase was the average number of career and recent presentations and performances. From 1993 to 2004, the average number of career presentations and performances went from 10.57 products to 27.17, an increase of 157% (Table 4.2). During the same period, the average number of recent presentations and performances saw a net increase of 34% (Table 4.2).

Even with a remarkable increase in the number of publications, among all types of scholarly output, the percentage makeup of publication has decreased (Table 4.2). The average percentage of career publications dropped from 39% in 1993 to 33% in 2004, a net decrease of 15% (Table 4.2). The same trend was observed in the average percentage of recent publications, which decreased from 46% of overall scholarly output to 44%, a net decrease of 4% (Table 4.2). The rationale behind the drop was that, during the same time period, there was also a momentous increase in the output of presentations and performances, a 157% increase for total career and 34% for recent career (Table 4.2). The percentage of scholarly output categorized as peer-reviewed publications had increased slightly for both career and recent publications (Table 4.2).

In addition to looking at the quantity of scholarly output, the quality of the output is also important. A closer look at the type of scholarly output has shown that the percentage of career publications in peer-reviewed journals has increased from 11% to 14%, a 27% increase (Table 4.2). Similar trends were observed in the average percentage of recent peer-reviewed publications, which increased from 12% to 18% from 1993 to 2004, with a net increase of 50% (Table 4.2)

Also observed was the amount of time spent on program/curriculum design and development. Almost a quarter of academic nursing faculty who reported scholarly

activities consistently focused on program/curriculum design and development from 1993 to 2004 (Table B9). This is more than double the percentage of academic faculty as a whole who spent time focusing on program/curriculum design and development (Table B9). This might indicate that, even when doing research, academic nursing faculty still spent a great deal of time and effort on improving the teaching curriculum. In terms of the professionalization process, this shows that the increased pressure in teaching may have resulted in role overload.

There are other indications that academic nursing faculty are becoming more involved in research and publication. Nursing displayed an 11% increase in the percentage of faculty participating in scholarly activities, from 56% in 1993 to 62% in 2004 (Table 4.2). Comparing nursing academic faculty with academic faculty as a whole, nursing academic faculty still participate in scholarly activities at a lower overall percentage than the faculty as a whole (Table B8).

Among the academic nursing faculty who reported participating in scholarly research, other encouraging trends were also found. The percentage of academic nursing faculty indicating work in basic research rose from 9% in 1993 to 32% in 2004, with a net increase of 256% (Table 4.2). At the same time, the percentage of academic nursing faculty who were doing applied or policy-oriented research or analysis decreased from 50% in 1993 to 41% in 1999, then to 31% in 2004 (Table B9). Most of the decline seems attributable to academic nursing faculty switching from applied to basic research, because when the totals for the two groups are combined, the number of people doing some kind of research remains constant at around 60% of the academic nursing faculty respondents as of 2004 (Table B9). This development mirrors the trend faculty as a whole exhibits,

where the percentage doing basic research jumped from 34% in 1993 to 52% in 2004 (Table B9), while during the same period the percentage doing applied research dropped from 36% to 23% in 2004 (See Tables B9 and B10). So, for both faculty as a whole and nursing faculty researchers, they appear to be moving into more basic forms of research.

There was an increase in the percentage of academic nursing faculty participating in funded research, a 65% increase from 26% in 1993 to 43% in 2004 (Table B11), which is similar to what other researchers found. A similar pattern was also observed among academic faculty as a whole, where the participation rate increased from 38% in 1993 to 55% in 1999 and dropped back down to 49% in 2004 (Table B11).

In summary, nursing faculty had significantly increased their scholarly output during the period studied, and there was also a noticeable increase in the percentage of faculty participating in basic and funded research (Table 4.2). However, the percentage of overall faculty publication output remained small (Table 4.2), compared to the overall distribution of nursing scholarly output, with the largest share of scholarly output being in the form of conference presentations and articles (Table 4.2). This can be interpreted as either a lack of rigor in nursing scholarly output or a dearth of other scholarly output of nurses.

Faculty Workload

Faculty workload also functions as an indicator of professional development, and where and how faculty spend their time foreshadows the professionalizing progress. Research and scholarly output are the key building blocks in professional identity. During a faculty shortage, one might logically assume that the academic nursing faculty would spend more time in teaching and less time on research, as the existing faculty are

obligated to pick up additional teaching loads to satisfy the increased demand. This does increase the potential for faculty burnout, which can have other long-term ramifications. The analysis of workload variables found that, not only did academic nursing faculty not have a significant increase in teaching load, but there was a minor reduction in the amount of time faculty spent on teaching-related activities. Table 4.3 looks at academic nursing faculty workload in the three traditional faculty functions, research, teaching and service from 1993 to 2004.

Table 0.3 Nursing Faculty Workload, 1993 - 2004¹

	1993	1999	2004	Change from 1993 to 2004
% of time spent on research	0.07	0.09	0.11	0.04
% of time spent on teaching	0.73	0.61	0.71	-0.02
Weekly average number of course(s) taught	2.74	3.22	2.45	-0.29
Weekly regular office hour(s)	7.39	5.66	6.74	-0.65
Satisfaction level: Time available for working with students as an advisor, mentor, etc.	2.79	2.84	n/a	0.05
% of time spent on service or related activities	0.21	0.30	0.19	-0.02
Weekly contact hour(s)	4.35	2.94	2.67	-1.68
% with committee participation	0.26	0.52	0.93	0.67

¹ See Table B12 – B16 & B25. Ranking for faculty satisfaction is on the scale of 1-4, with 1 as being very dissatisfied and 4 being very satisfied. Only faculty who answered all the sub-questions listed under the satisfaction section of the survey are included in the table.

A breakdown of the weekly time spent on the three areas of job responsibilities - teaching, research and other tasks - showed that the amount of time academic nursing faculty spent on teaching actually declined from 73% in 1993 to 61% in 1999, and then rose back to 71% in 2004, for a net decrease of 2% (Table 4.3). A similar drop was also

TRENDS IN NURSING PROFESSIONALIZATION 87

observed among all faculty from 1993 to 1999 from 59% to 55%, and then went back up to 58% in 2004 (Table B12). The amount of time academic nursing faculty spent in research experienced a small upward trend from 7% in 1993 to 9% in 1999, and finally to 11% in 2004, but it was still comparably less than for faculty as a whole, where the number fluctuated around 20% (Table B12). Overall, from 1993 to 2004 there were no significant changes in faculty work patterns, and most of the changes were on a par with patterns observed in academic faculty as whole. While the expectation was that there would be an increase in the teaching load, based on previous research, results of this study showed that that did not occur. Insofar as the study examined only full-time faculty, it is possible that the increase in teaching load was picked up by other subcohorts within the nursing faculty, a possibility to be discussed in a later section of this chapter.

Other teaching-related variables reviewed further confirmed a trend of moderate decreases in the amount of time spent on teaching, mirroring what was observed in the previous question on faculty time allocation. Among formal interaction between faculty and students, the average number of courses taught weekly went from 2.74 in 1993 to 2.45 in 2004, a decrease of 11% (Table 4.3). The weekly average of regular office hours went from 7.39 in 1993 to 6.74 in 2004, a net decrease of 0.65 hours (Table 4.3). The informal interaction between faculty and students in activities such as weekly office hours went from 4.35 hours in 1993 to 2.67 in 2004 (Table 4.3). Academic faculty as a whole also exhibited similar patterns, with a general decrease in the amount of time faculty spent on teaching-related activities (See Tables B13-B15). It seems that the academic nursing faculty were, in general, satisfied with the amount of interaction with their students. When asked about the level of satisfaction regarding the amount of time

available for working with students as an advisor or mentor, etc., the level of satisfaction (with 1 being highly unsatisfied, to 4 being highly satisfied) has risen from 2.79 in 1993 to 2.84 in 1999, the only two data points available (Table 4.3).

Academic faculty's levels of service activity were also assessed through an exploration of time spent on committee responsibilities. Academic nursing faculty saw a tremendous rise in the percentage of faculty with committee participation, from 26% in 1993 to 93% in 2004, an almost 67% increase (Table 4.3). On a parallel with the trends observed for academic nursing faculty, although not as severe, academic faculty as a whole also saw an upward trend in the percentage of faculty with committee participation from 46% in 1993 to 89% in 2004 with a total increase of 43% during the same time period (Table B16).

It was unexpected to find that full-time nursing faculty spent less time teaching or dealing with teaching-related activities. Compared to the faculty as a whole, nursing faculty spent almost 50% less of its time on research (Table B12), so the decrease in teaching and increase in research might be one of the indicators that the nursing faculty, at least those employed as full-time faculty at the four-year institutions, are realigning their workloads to focus more of their attention on research and research-related activities. This finding does support the expectation of an increase in scholarly output, as outlined in the literature review section.

Employment Patterns/Career Paths

The literature review suggested that academic nursing faculty entered the teaching profession at a later age than academic faculty as a whole. This can reflect the fact that, as in any professional field, the academic nursing faculty were encouraged to have a

professional nursing career prior to entering the teaching profession, or that nursing education is not being viewed as a valid first career choice for someone with an advanced degree. This theory was supported in observations of trends in the data related to when academic nursing faculty met several major academic milestones. A list of age-related and career-path variables from 1993 to 2004 is presented in Table 4.4.

Table 0.4 Nursing Faculty Employment Pattern/Career Path, 1993 - 2004¹

	1993	1999	2004	Change from 1993 to 2004
Average age of faculty	45.42	51.34	52.54	7.12
Average age of faculty starting their current teaching position	40.06	45.41	43.06	3.00
Average age when doctoral degree granted	42.03	42.89	43.39	1.36
Percentage of institution salary as part of your overall income	0.90	0.91	0.90	0.00
Percentage of time faculty spent working for outside institutions	0.10	0.09	0.09	-0.01
Percentage of faculty with previous employment experience	n/a	1.00	1.00	0.00 ²
Percentage of faculty with previous employment experience in hospital, foundation, government, or military	n/a	0.49	0.22	-0.27 ³
Percentage of faculty with previous employment experience in education	n/a	0.41	0.47	0.06 ⁴
Percentage of faculty with concurrent employment	0.42	0.43	0.44	0.02

¹ See Table B17 – B24.

² % of change is calculated based on 1999 & 2004 dataset

³ % of change is calculated based on 1999 & 2004 dataset

⁴ % of change is calculated based on 1999 & 2004 dataset

TRENDS IN NURSING PROFESSIONALIZATION 90

From 1993 to 2004, the average age of a nursing faculty member, upon assuming his or her current position, increased from 40.06 years of age to 43.06 years of age, for a total increase of 3 years of age, which is an increase of 7.5% (Table 4.4). During the same time period, among academic nursing faculty with doctoral degrees, the average age when doctoral degrees were granted increased from 42.03 years of age to 43.39 years of age, with an increase of 1.36 years, or a 3% increase (Table 4.4). This occurred during the same time period when the average age at entry into a first academic position for academic faculty as a whole remained stable (Table B18).

The most significant change is in the average age of nursing faculty, which jumped from 45.42 years of age in 1993 to 52.54 in 2004, an increase of 7.12 years, or 16% (Table 4.4). A similar trend can also be found among academic faculty as a whole, which saw an increase of 4.12 years during the same time period (Table B19). Because of the difference in rate of increase, as of 2004 the gap between the average full-time faculty age between nursing and faculty as a whole was approximately 3 years (Table B19), whereas in 1993, the figures for nursing versus faculty as a whole were almost identical (Table B19).

Results also showed that salaries of academic nursing faculty provided additional insights into the role this group plays within colleges and universities. The proportion of personal income that academic nursing faculty earned at the college or university who were employed at the time of the survey remained the same, at 90% in both 1993 and 2004 (Table B20). This statistic was supported when the amount of time academic nursing faculty reportedly spent in employment in addition to primary teaching positions was analyzed. This examination showed that academic nursing faculty spent

approximately 90% of working hours participating in activities within the institution where a primary teaching position was held (Table 4.4). These academic nursing faculty trends are almost indistinguishable from the academic faculty trends as a whole (See Tables B20 and B21). From 1993 to 2004, the percentage of academic nursing faculty who were also employed outside of the institution remained essentially constant, from 42% in 1993 to 44% in 2004. But this concurrent employment percentage was about ten points higher than for academic faculty as a whole (Table B24).

Compared to academic faculty as a whole, academic nursing faculty are significantly more likely to have had previous employment experience, and that experience is predominantly in the field of health science, as might have been expected for a professional field. In 1999 and 2004, the only two years where data on the subject was collected, 100% of academic nursing faculty surveyed reported previous employment experience (Table 4.4). The percentage of academic faculty as a whole with previous employment experience ranged from 81% in 1999 to 88% in 2004 (Table B22).

A closer examination of those nursing faculty who reported previous work experience as practicing nurses, 49% in 1999, and stating that this experience was specifically in hospital, foundation, government or military settings, showed a drop in the percentage to 22% in 2004 (Table 4.4). In 2004, 47% of nursing faculty stated previous that their experience was in educational institutions, an increase from 41% in 1999 (Table 4.4). In contrast, 62% of all faculty had previous experience in educational institutions (Table B23).

In summary, the cluster of variables on employment pattern has shown that on the average, nursing faculty are getting older; they are beginning their academic career later,

they received their doctoral degree later and, on average, they are older as a cohort. The comparison of nursing faculty's institutional salary revealed flat trends and that significant portions of the nursing faculty still had concurrent employment and previous employment. As stated in the previous literature review, the aging of the nursing faculty is one of the contributing causes of the nursing faculty shortage. It is an area that was powerfully demonstrated by the NSOPF data and warrant additional attention from policymakers.

Academic faculty's levels of satisfaction regarding their employment at their institutions provided insight into their view of the role they played within the institution. Table 4.5 presents results found in nursing faculty's levels of satisfaction regarding their institutional duties and their employment during the period from 1993 to 2004.

Table 0.5 Nursing Faculty Satisfaction Regarding Their Institution Duty & Job, 1993 - 2004¹

	1993	1999	2004	Change from 1993 to 2004
The authority I have to make decisions about content and methods in the courses I teach	3.44	3.48	3.67	0.23
The authority I have to make decisions about other (noninstructional) aspect of my job	2.91	2.89	n/a	-0.02 ²
The authority I have to make decisions about what course I teach	2.87	2.71	n/a	-0.16 ³
Opportunity for advancement in rank at this institution	3.04	3.12	n/a	0.08 ⁴
Time available for keeping current in my field	2.64	2.77	n/a	0.13 ⁵
My salary	2.99	2.85	3.02	0.03
My job here, overall	3.05	3.09	3.25	0.20

¹ See Table B25 – B26. Ranking for faculty satisfaction is on the scale of 1-4, with 1 as being very dissatisfied and 4 is very satisfied. Only faculty who answered all the sub-questions listed under the satisfaction section of the survey are included in the table.

² % of change is calculated based on 1993 & 1999 dataset

³ % of change is calculated based on 1993 & 1999 dataset

⁴ % of change is calculated based on 1993 & 1999 dataset

⁵ % of change is calculated based on 1993 & 1999 dataset

On a scale of 1-4, with 1 being very dissatisfied and 4 being very satisfied, the academic nursing faculty reported being satisfied with regard to having the authority to develop course content and decide the methods for the courses taught, with an average of 3.44 in 1993 to 3.67 in 2004, a modest rising trend (Table 4.5). In 1993 and 1999, the only years the question was asked in this way, academic nursing faculty expressed less satisfaction with regard to having the authority to make decisions about what courses to offer and the quality of the undergraduate students they were asked to teach (Table 4.5). At the same time, academic nursing faculty's satisfaction with regard to having the authority to make decisions on noninstructional aspects of the job, such as time available to work with the students and the quality of graduate students they were asked to teach, remained almost the same (Table 4.5). Overall, the nursing faculty was found to be more satisfied with job salary and its benefits, compared with academic faculty as a whole (Table 4.5).

Summary of Nursing Faculty

In conclusion, from 1993 to 2004, the nursing faculty exhibited many signs of academic progress. This included an increase in the number of nursing faculty who had nursing doctoral degrees, production of more scholarly publications, and time spent on research. However, there was evidence of existing challenges, such as aging of nursing

faculty and reduction in the percentage of faculty who had Doctoral Degrees, which has shown that nursing faculty is not immune to the impact of faculty shortage.

Descriptive Comparative Analysis of Nursing Academic Faculty vs. Other Academic Faculty Groups

This section of data analysis compares nursing faculty with three other academic groups: arts and sciences, professional fields and allied health fields. The same three clusters of variables as identified in the previous section, faculty academic credentials, workload and career path, were used to observe if any interdisciplinary differences existed. The analysis tried to assess which field is most similar to academic nursing faculty in their professionalization process, and if academic nursing faculty were trending towards similarity with arts and sciences faculty. The professionalization theory stated that, as the field professionalized, the new participants to the field would try to emulate, or adopt, the characteristics of the existing majority as a way to assume a common identity; therefore, the belief is that, through the data, the academic nursing faculty would emulate the arts and sciences faculty, who are the faculty majority. The other two fields of faculty were included for additional comparison.

Academic Credentialing

A trend analysis of faculty credentials showed a divergence between nursing faculty and arts and sciences faculty. Table 4.6 presents data related to the academic credential of nursing, allied health, arts and sciences and professional faculty.

Table 0.6 Faculty Credential by Selected Disciplines, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
--	------	------	------	-------------------------------------

TRENDS IN NURSING PROFESSIONALIZATION 95

% of faculty with doctoral degree				
Arts & science faculty	0.82	0.86	0.9	0.08
Professional fields	0.72	0.71	0.73	0.01
Allied health	0.48	0.55	0.4	-0.08
Nursing	0.70	0.51	0.50	-0.20
% of faculty possess doctoral degree when first entering teaching profession				
Arts & science faculty	-	0.42	0.32	-0.10
Professional fields	-	0.5	0.48	-0.02
Allied health	-	0.43	0.25	-0.18
Nursing	-	0.87	0.85	-0.02

¹ See Table B01 & B03

From 1993 to 2004, the percentage of nursing faculty who had Doctoral degrees dropped from 70% to 50%, whereas arts and sciences faculty saw an increase of 98% to 90% during the same period (Table 4.6). As of 2004, the education gap between arts and sciences faculty and nursing faculty widened to about 40% (Table 4.6). The percentage of faculty in professional disciplines who held Doctoral degrees remained steady at around 73% in 2004, while allied health faculty dropped from 48% to 40% (Table 4.6). The percentage of allied health faculty with first professional degrees rose significantly from 14% to 44% during the same time period, which might signal a shift in what constitutes a terminal degree for that field (Table B01).

For the question asking if faculty had a Doctoral degree upon beginning the teaching position at the time of the survey, there were only two datasets available, NSOPF: 99 and NSOPF: 04. The trend for academic nursing faculty was contrary to those of other faculty groups. Nursing faculty, as a group, were significantly more likely to obtain a doctoral degree before beginning a first teaching position (Table 4.6). This is

TRENDS IN NURSING PROFESSIONALIZATION 96

in sharp contrast from arts and sciences faculty, where only approximately a third of the faculty in 2004 completed a doctoral degree before beginning a first teaching position (Table 4.6).

Scholarly Output

The study also examined faculty's scholarly output. The analysis found that arts and sciences faculty and allied health faculty yielded relatively higher scholarly production than professional faculty or nursing faculty. Table 4.7 looks at faculty scholarly output by disciplines from 1993 to 2004.

Table 0.7 Faculty Scholarly Output by Selected Disciplines, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
# of career scholarly output				
Arts & sciences faculty	53.03	75.19	78.60	25.57
Professional fields	50.22	61.52	62.43	12.20
Allied health	59.53	84.90	108.98	49.45
Nursing	17.65	51.42	40.64	22.99
# of career scholarly publication				
Arts & sciences faculty	31.38	37.17	38.93	7.55
Professional fields	17.36	17.50	17.25	-0.11
Allied health	29.50	36.19	46.57	17.07
Nursing	6.95	17.49	13.39	6.44
% of participation in scholarly activities				
Arts & sciences faculty	0.82	0.83	0.83	0.01
Professional fields	0.68	0.75	0.71	0.03
Allied health	0.70	0.67	0.80	0.10
Nursing	0.56	0.65	0.62	0.06
% of participation in basic research				
Arts & sciences faculty	0.47	0.64	0.67	0.20

TRENDS IN NURSING PROFESSIONALIZATION 97

Professional fields	0.12	0.25	0.32	0.20
Allied health	0.25	0.33	0.37	0.12
Nursing	0.09	0.21	0.32	0.23
% of participation in funded research				
Arts & sciences faculty	0.37	0.53	0.52	0.15
Professional fields	0.33	0.49	0.39	0.06
Allied health	0.59	0.67	0.67	0.08
Nursing	0.26	0.56	0.43	0.17

¹ See Table B04, B08, B09 & B11

From 1993 to 2004, the average for publication of scholarly work throughout a career for academic nursing faculty rose significantly, from 17.63 works published to 40.64 works, an increase of 22.99 (Table 4.7). However, the sharp increase still put the nursing faculty average number of career publication behind other faculty groups, 78.60 for arts and sciences, 62.43 for professional discipline, and 108.98 for allied health faculty (Table 4.7). The faculty group with the highest average number of publications throughout a career is the allied health faculty which, as of 2004, had an average of 68.34 more publications than nursing faculty (Table 4.7).

In 2004, both arts and sciences and allied health faculty had, respectively, 38.93 and 46.57 career publications in scholarly publications such as peer-reviewed journals, journals, books and other printed publications (Table 4.7). In comparison, professional disciplines and nursing had much fewer, at 17.25 and 13.39, respectively (Table 4.7). The difference between the highest producer, allied health faculty, and nursing faculty is approximately 33.18 (Table 4.7).

The majority of faculty from all groups participated in scholarly activities. Continuing the trend observed in scholarly publications, arts and sciences and allied

health faculty participated in scholarly activities at higher percentages than the professional disciplines and nursing faculty (Table 4.7). All groups had an increased percentage of research done in basic research, with arts and sciences faculty achieving the highest percentage, from 47% in 1993 to 67% in 2004, an upward trend of 20% (Table 4.7). The other faculty groups also experienced an increase in the percentage doing basic research, but these groups started at a much lower percentage, 12% for professional disciplines, from 25% for allied health and 9% for nursing faculty in 1993 to approximately 35% in 2004 (Table 4.7). Arts and science faculty also had the highest percentage of faculty involved in basic research, and nursing and the professional disciplines had the lowest, with both clocked in at 32% in 2004 (Table 4.7). Among all faculty cohort group studies, in 2004 allied health had the highest percentage of faculty participation in funded research at 67%, and in comparison to nursing and the professional disciplines, which had a relatively lower percentage, at 42% and 39% respectively (Table 4.7).

In summary, the arts and sciences and allied health faculty produced a higher scholarly output and conducted more research than nursing and professional discipline faculty.

Faculty Workload

To continue its evaluation process, a field must continue to generate new research. A field with a limited amount of time spent on research can lead to stagnant professional development. Table 4.8 illustrates how faculty spent their time on teaching, research and service from 1993 to 2004.

TRENDS IN NURSING PROFESSIONALIZATION 99

Table 0.8 Faculty Workload by Selected Disciplines, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
% of time faculty spent on teaching				
Arts & sciences faculty	0.59	0.61	0.57	-0.02
Professional fields	0.66	0.59	0.65	-0.01
Allied health	0.55	0.48	0.39	-0.16
Nursing	0.73	0.61	0.71	-0.02
% of time faculty spent on research				
Arts & sciences faculty	0.22	0.22	0.26	0.04
Professional fields	0.12	0.12	0.14	0.02
Allied health	0.21	0.20	0.33	0.12
Nursing	0.07	0.09	0.11	0.04
% of faculty with committee responsibilities				
Arts & sciences faculty	0.51	0.64	0.88	0.37
Professional fields	0.48	0.63	0.93	0.45
Allied health	0.45	0.62	0.86	0.41
Nursing	0.26	0.52	0.93	0.67

See Table B12 & B16

A breakdown of faculty workload showed that academic nursing faculty spent more time on teaching, and less time on research, than other academic faculty groups (Table 4.8). In general, the average time that nursing faculty spent on teaching has not changed by much (Table 4.8). However, compared to other faculty groups, nursing faculty spent a significantly greater part of their time on teaching. In 2004, nursing faculty spent 71% of time on teaching, which is about 32% greater than the faculty group who spent the least proportion of their time on teaching and the allied health faculty, and about 15% more than arts and science faculty (Table 4.8).

TRENDS IN NURSING PROFESSIONALIZATION 100

Nursing faculty also spent the smallest percentage of time engaged in research. In 2004, the nursing faculty spent 11% of their time each week on research (Table 4.8). Professional disciplines reported spending 14% of their time each week in research, and arts and sciences reported 26%. Allied health reported logging the most time engaged in research, with 33% (Table 4.8).

All faculty groups saw an increase in committee responsibilities. Nursing faculty saw the largest increase in the percentage of faculty involvement in committee work from 26% in 1993 to 93% in 2004, a jump of 67% (Table 4.8). Professional disciplines and nursing faculty logged the most hours in committee of the faculty groups, with 93% of faculty having been involved in committee work in 2004. Arts and sciences and allied health reported 88% and 86% involvement, respectively (Table B16).

Employment Patterns/Career Paths

The data also show that nursing faculty did not share the same career patterns as others. The paper looked at the average age of faculty at their major career junctures: when they first started teaching in their current position, when they received their Doctoral Degrees, and their current age and career obligations outside of their roles as faculty members. The results of the study suggested that nursing faculty did not choose higher education as their initial career. Table 4.9 illustrates faculty career path by selected fields from 1993 to 2004.

Table 0.9 Faculty Career Path by Selected Fields, 1993 -2004²

	1993	1999	2004	% of change from 1993 to 2004
--	------	------	------	-------------------------------------

Average age of faculty when first
start current teaching position

TRENDS IN NURSING PROFESSIONALIZATION 101

Arts & sciences faculty	35.69	41.13	36.92	1.23
Professional fields	39.52	44.27	42.20	2.68
Allied health	36.73	42.04	39.02	2.29
Nursing	40.06	45.41	43.06	3.00
Average age of faculty receive their doctoral degree				
Arts & sciences faculty	32.41	32.21	32.26	-0.15
Professional fields	37.87	37.96	39.44	1.57
Allied health	33.62	34.10	33.21	-0.41
Nursing	42.03	42.89	43.39	1.36
Average age of faculty				
Arts & sciences faculty	44.78	49.19	49.39	4.61
Professional fields	43.44	50.33	51.46	8.02
Allied health	47.53	48.44	49.14	1.61
Nursing	45.42	51.34	52.54	7.12
% of time spent on outside employment				
Arts & sciences faculty	0.07	0.06	0.06	-0.01
Professional fields	0.10	0.10	0.09	-0.02
Allied health	0.09	0.09	0.08	-0.01
Nursing	0.10	0.09	0.09	-0.01
% of faculty with previous employment				
Arts & sciences faculty	-	0.78	0.86	0.08
Professional fields	-	0.92	0.96	0.04
Allied health	-	1.00	1.00	0.00
Nursing	-	1.00	1.00	0.00
% of faculty with concurrent employment				
Arts & sciences faculty	0.27	0.27	0.27	0.00
Professional fields	0.39	0.45	0.38	-0.01
Allied health	0.37	0.39	0.43	0.06
Nursing	0.42	0.43	0.44	0.02

² See Table B17, B18, B19, B21 & B22

Nursing faculty respondents seemed to have transitioned from the outside world of work to academia later in life than did faculty of other disciplines. The average age of academic nursing faculty entering their current teaching positions at the time of the survey ranged from 40.06 years in 1993 to 43.06 years in 2004, an increase of 7% (Table 4.9). In comparison, the average age of arts and science faculty entering their current teaching positions at the time of the survey ranged from 35.69 in 1993 to 36.93 in 2004, an increase of 3% (Table 4.9). The difference between nursing and arts and sciences faculty is about 6.04 years in 2004 (Table 4.9). In 2004, the average age of nursing faculty who also received their doctoral degree at a later age was 43.39, which is about 11.13 years older than arts and sciences faculty, 5.95 years older than professional discipline faculty, and 10.18 years older than allied health faculty (Table 4.9). The average age of nursing faculty who participated in the study increased from 45.42 in 1993 to 52.54 in 2004, an increase of 16% (Table B19). Although the average age of arts and sciences faculty is still lower than the academic nursing professor, both groups saw an upward trend from 1993 to 2004. This was also true with the professional fields and allied health faculty, where both groups also saw an upward trend in the average age of faculty (Table B19). In 2004, the nursing faculty, on average, was slightly older than the arts and sciences faculty by 3.15 years (Table 4.9).

Nursing faculty were more likely than arts and sciences faculty to have outside, previous or concurrent employment. In 2004, in the tabulation for the percentage of time that faculty spent on both paid and unpaid outside employment, the nursing faculty and professional fields ranked the highest at 9% (Table 4.9); however, that was not

significantly higher than allied health (8%) or arts and sciences faculty (6%) (Table 4.9). In 1999 and 2004, the two survey years when the question was asked, 100% of nursing faculty reported having previous employment experience. Interestingly, nursing faculty were not the only group with 100% having had previous employment. Allied health faculty also reported that 100% of them had previous employment. Professional discipline faculty reported a high rate of 92% in previous employment rate in 1999, and 96% in 2004 (Table 4.9). Arts and sciences faculty reported 78% in 1999 and 86% in 2004, lower percentages than the other groups, but also a rise from 1999 to 2004 (Table 4.9).

Nursing faculty also ranked the highest among their faculty cohorts in the percentage of nurses who had concurrent employment. From 1993 to 2004, approximately 43% of academic nursing faculty consistently reported having engaged in concurrent employment (Table 4.9). The percentage for arts and sciences faculty also held steady at 27% (Table 4.9). Both professional discipline faculty and allied health faculty also reported high rates of concurrent employment, both around 40% (Table 4.9).

As expected for a professional discipline, results showed that the nursing faculty did not often choose the nursing academic career as their first career, and this was reflected in their entering the academic profession or receiving their doctoral degrees later than the rest of the academic fields studied. On the average, academic nursing faculty are also older than the rest of the academic fields studied. Surprisingly, nursing faculty did not spend significantly more time in employment outside of higher education, compared to other faculty cohorts.

Descriptive Comparative Analysis of Subgroups of Nursing Academic Faculty

Based on the literature reviewed for this study, one might expect to find that nursing faculty who are seniors, tenured or working in four-year institutions were more prepared academically than those who worked as nontenured faculty, were new, or in a two-year institution. This study compared three different nursing faculty groups: tenured versus nontenured; working at four-year institutions versus working in two-year institutions; and new versus senior in terms of progress in professionalization. This component of data analysis, which further examined nursing subgroups, was hindered because of a low sample population, which might inadvertently impact the outcome.

Faculty Credentialing

Data on the academic credentialing of the nursing subgroups showed a performance gap that widened during the time under study. Table 4.10 shows nursing faculty credentials in three different cohorts: tenured vs. nontenured, working at two-year institutions vs. four-year institutions, and new vs. senior.

Table 0.10 Faculty Academic Credentials by Nursing Sub-Cohorts, 1993-2004¹

	1993	1999	2004	% of change from 1993 to 2004
<hr/>				
% of faculty with doctoral degree				
Tenured	0.34	0.68	0.71	0.37
Nontenured	0.13	0.17	0.23	0.10
4 years	0.27	0.51	0.50	0.23
2 years	0.03	0.06	0.06	0.03
New	0.14	0.19	0.26	0.12
Senior	0.34	0.59	0.59	0.25

TRENDS IN NURSING PROFESSIONALIZATION 105

% of faculty with doctoral degree in nursing

Tenured	0.52	0.52	0.59	0.07
Nontenured	0.30	0.56	0.63	0.33
4 years	0.49	0.53	0.58	0.09
2 years	0.40	0.70	0.20	-0.20
New	0.68	0.60	0.74	0.06
Senior	0.45	0.52	0.55	0.10

B27 -B32

¹ See Table B27 – B32

The percentage of tenured nursing faculty who had Doctoral degrees rose from 34% in 1993 to 71% in 2004, a net increase of 37% (Table 4.10). During the same period, the nontenured nursing faculty who had Doctoral degrees rose only from 10% from 13% to 23% (Table 4.10). As of 2004, the gap between tenured and nontenured faculty with doctoral degrees widened to about 48% (Table 4.10). Regardless of their tenure status, the majority of tenured and nontenured faculty obtained their Doctoral degrees in Nursing (Table 4.10).

A comparison between full-time nursing faculty working in two-year and four-year institutions also revealed a significant discrepancy in academic credentials. The percentage of faculty at two-year institutions who had Doctoral degrees was very low, ranging from 3% in 1993 to 6% in 1999, and it remained the same in 2004 (Table 4.10). During the same period, the percentage of those working in four-year colleges or universities who had Doctoral degrees rose from 27% in 1993 to 50% in 2004, a net increase of 23% (Table 4.10). Those who had Doctoral degrees and were employed in four-year institutions were more likely to obtain their doctoral degrees in health sciences,

and those who worked in two-year institutions were more likely to obtain degrees in education (Table 4.10).

A comparison between new and senior nursing faculty found that, although new faculty consistently had lower percentages of faculty who had Doctoral degrees, when compared to senior faculty, showed that this gap actually expanded during the time under study (Table 4.10). Also, among those who had Doctoral degrees, new faculty were more likely to obtain a degree in the field of health science than were senior faculty (See Tables 4.10).

It is not surprising to discover that faculty who were tenured, working in a four-year institution or had senior status were more academically prepared. There was very little difference between tenured and nontenured faculty when it came to obtaining a Doctoral degree in Nursing. The sharpest difference was found between faculty in four-year institutions and those in two-year institutions. The faculty working at two-year institutions were more likely to have a doctoral degree in education than those at four-year institutions (Table 4.10).

Scholarly Output

Continuing the trend observed in faculty credentials, on average, tenured nursing faculty published more frequently and had a higher likelihood of participating in research than nontenured faculty. Table 4.11 created an overview of nursing faculty scholarly output and sorted by subcohorts.

Table 0.11 Faculty Scholarly Output by Nursing SubCohorts, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
--	------	------	------	-------------------------------------

TRENDS IN NURSING PROFESSIONALIZATION 107

Average number of total career publication

Tenured	18.76	61.85	53.57	34.81
Nontenured	15.06	27.81	19.27	4.21
4 years	17.59	51.42	40.52	22.93
2 years	8.40	12.83	10.53	2.13
New	14.50	45.59	18.83	4.33
Senior	19.23	52.73	48.65	29.42

% of faculty participated in scholarly activities

Tenured	0.57	0.77	0.73	0.16
Nontenured	0.58	0.43	0.51	-0.07
4 years	0.56	0.65	0.62	0.06
2 years	0.23	0.25	0.22	-0.01
New	0.51	0.50	0.51	0.00
Senior	0.59	0.69	0.67	0.08

% of faculty participated in funded research

Tenured	0.28	0.44	0.39	0.11
Nontenured	0.13	0.21	0.11	-0.02
4 years	0.36	0.50	0.47	0.11
2 years	0.33	0.30	0.10	-0.23
New	0.26	0.22	0.21	-0.05
Senior	0.25	0.40	0.30	0.05

% of faculty participated in basic research

Tenured	0.05	0.21	0.32	0.27
Nontenured	0.17	0.25	0.31	0.14
4 years	0.09	0.21	0.32	0.23
2 years	0.13	0.09	0.33	0.20

New	0.09	0.30	0.35	0.26
Senior	0.09	0.20	0.32	0.23

¹ See B33 – B47

In overviews of career publications, tenured nursing faculty achieved more and doubled the number of articles published than did nontenured nursing faculty (Table 4.11). Tenured nursing faculty participated in 22% more scholarly activities in 2004 than did nontenured nursing faculty - a dramatic rise from the 1% difference in 1993 (Table 4.11). Tenured nursing faculty participated in more funded research, with 28% in 1999 and 39% in 2004, while in 1993 only 13% of nontenured nursing faculty participated in funded research, 21% in 1999, and 11% in 2004 (Table 4.11). Both tenured and nontenured faculty increased their participation in basic research (Table 4.11). This study found an increased concentration in basic and applied research in tenured nursing faculty participating, from 59% of overall research in 1993 to 72% in 2004 (Table 4.11). During the same period, nontenured faculty saw a shift from approximately 10% of total research for basic and applied research to program/curriculum design and development (Table B36). This data supports the hypothesis that tenured faculty spent more time involved in research and publication, while nontenured faculty spend more time teaching.

Taken as a whole, the faculty working at four-year institutions had greater scholarly output than those working at two-year institutions. An assessment of overall career publications rates found that four-year college or university faculty published more throughout a career than did those working in two-year institutions. The average of total publications for faculty at four-year institutions increased from 17.59 pieces per person in 1993 to 40.52 in 2004 (Table 4.11). The average of total publications for faculty at two-

year institutions increased slightly from 8.40 pieces per person in 1993 to 10.53 in 2004 (Table 4.11).

Faculty at four-year institutions participated in scholarly activities at higher rates than did faculty at two-year institutions (Table 4.11). The percentage for faculty at four-year institutions reporting scholarly activities increased from 56% in 1993 to 62% in 2004 (Table 4.11). The number of faculty at two-year institutions reporting participation in scholarly activities remained almost the same from 23% in 1993 to 22% in 2004 (Table 4.11). There is a divergence between the faculty at two-year institutions and faculty at four-year institutions, in terms of involvement in funded research. There was an increase for faculty at four-year institutions, from 36% in 1993 to 47% in 2004 (Table 4.11). During the same time period, participation of faculty at two-year institutions in funded research dropped from 33% in 1993 to 10% in 2004 (Table 4.11). The faculty at four-year institutions shifted their focus to more basic research, and the faculty at two-year institutions focused more attention on program/curriculum design and development (Table B41).

Considering that senior faculty would have worked longer in the higher education field, it was not surprising that the senior faculty would produce more scholarly output, with nearly three times more publishing throughout their careers than new faculty (Table 4.11). Senior faculty also had a higher participation rate in scholarly activities and funded research than new faculty (Table 4.11). There was no significant difference between these two nursing subgroups in terms of research type, as both groups increased their scholarly output in basic research (Table 4.11).

Faculty Workload

Analyzing how time is allocated for these nursing professor subgroups helped to determine how far each has progressed according to the professionalization theory, which contends that as faculty in a discipline spend more time in research, writing and being published, and participating in discipline specific associations, the stronger the signs that the field has professionalized. Table 4.12 looks specifically at the faculty workload distribution based on nursing subcohorts from 1993 to 2004.

Table 0.12 Faculty Work Allocation by Nursing Subcohorts, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
% of time spent on teaching				
Tenured	71.50	56.68	62.97	-8.53
Nontenured	75.15	69.37	79.86	4.71
4 years	72.55	61.23	70.51	-2.04
2 years	78.54	77.78	82.02	3.48
New	73.77	67.48	76.43	2.66
Senior	71.90	59.83	67.55	-4.35
% of time spent on research				
Tenured	7.49	11.00	15.04	7.55
Nontenured	5.48	6.56	6.67	1.19
4 years	6.77	8.73	10.91	4.14
2 years	3.28	1.88	1.41	-1.87
New	5.48	5.35	9.51	4.03
Senior	7.46	9.49	11.80	4.34

¹ See Table B27 – B32

In examining the demands placed on these subgroups, it became clear that each subgroup was achieving levels of professionalization separately, which may hold back

nursing professionalization as a whole. Tenured nursing faculty spent less time teaching and more time on research than nontenured nursing faculty (Table 4.12). Nursing faculty at four-year institutions had a slight drop in the amount of time teaching, but a steady increase in research time, while nursing faculty at two-year institutions saw an increase in teaching and a decrease in time spent on research (See Table 4.12). New faculty spent more time in both teaching and research, but senior faculty spent more time on research and had a reduction in time spent teaching (See Tables 4.12).

Employment Patterns/Career Paths

Additionally, this study examined three elements of faculty employment patterns: the age when major academic career milestones were attained, previous employment rates, and concurrent employment rates. This study's expectation was to find that academic nursing faculty who were tenured, senior or working in four-year institutions would be more likely to have accomplished academic milestones earlier, with less previous employment outside of education in higher education, or no previous employment at all, and less likely to have have concurrent employment. See Table 4.13, below, for breakdown of nursing faculty career path by subcohorts from 1993 to 2004.

Table 40.13 Faculty Career Path by Nursing Subcohorts, 1993 - 2004¹

	1993	1999	2004	% of change from 1993 to 2004
Average age of the faculty				
Tenured	48.62	52.27	53.44	4.82
Nontenured	44.75	49.02	50.36	5.61
4 years	47.12	50.30	50.88	3.76
2 years	47.58	51.34	52.38	4.80
New	43.85	45.41	47.11	3.26

TRENDS IN NURSING PROFESSIONALIZATION 112

Senior	49.56	52.66	54.03	4.47
Average age of faculty receive their doctoral degree				
Tenured	42.40	43.34	42.49	0.09
Nontenured	40.40	41.56	46.07	5.67
4 years	42.03	42.89	43.39	1.36
2 years	40.20	40.50	46.00	5.80
New	38.84	42.80	43.05	4.21
Senior	42.72	42.90	43.43	0.71
Average age of faculty when first start current teaching position				
Tenured	40.14	46.00	41.91	1.77
Nontenured	39.71	44.62	37.59	-2.12
4 years	40.06	45.41	43.06	3.00
2 years	38.18	42.60	40.95	2.77
New	40.77	42.37	43.31	2.54
Senior	39.68	46.10	42.96	3.28
% of faculty with previous employment				
Tenured	-	0.96	0.84	0.88 ²
Nontenured	-	0.96	0.85	0.89 ³
4 years	-	0.96	0.84	0.88 ⁴
2 years	-	0.89	0.80	0.90 ⁵
New	-	0.89	0.96	1.08 ⁶
Senior	-	0.98	0.99	1.01 ⁷
% of faculty with concurrent employment				
Tenured	0.41	0.40	0.46	0.05
Nontenured	0.48	0.50	0.41	-0.07
4 years	0.42	0.43	0.44	0.02

TRENDS IN NURSING PROFESSIONALIZATION 113

2 years	0.32	0.30	0.35	0.03
New	0.53	0.46	0.49	-0.04
Senior	0.36	0.42	0.44	0.08

¹ See Table B33 – B68

² % of change is calculated based on 1999 & 2004 dataset

³ % of change is calculated based on 1999 & 2004 dataset

⁴ % of change is calculated based on 1999 & 2004 dataset

⁵ % of change is calculated based on 1999 & 2004 dataset

⁶ % of change is calculated based on 1999 & 2004 dataset

⁷ % of change is calculated based on 1999 & 2004 dataset

The data showed that, on the average age of nursing faculty, regardless of different subgroups, was on the rise and academic milestones were met later in life (Table 4.13). The age of tenured nursing faculty rose from an average of 48.62 years in 1993 to 53.44 in 2004, and the age of nontenured nursing faculty also rose from an average of 44.75 years in 1993 to 50.36 in 2004 (Table 4.13). The age gap between tenured and nontenured narrowed, but it still exists (Table 4.13). On average, nursing faculty in two-year institutions were older than nursing faculty in four-year institutions, and the gap widened during the period under study (Table 4.13). In 2004, the average age of a nursing professor in a two year institution was 52.38 years and the average age of nursing professor at a four-year institution was 50.88 years (Table 4.13). Senior faculty was, on average, older than new faculty and the age gap was narrowing, but still significant at a difference of 3.92 years in 2004 (Table 4.13).

An assessment of the average age when nursing faculty received their doctoral degrees showed a similar trend as the general age patterns described above. Among tenured academic nursing faculty, the average age when a doctoral degree was granted remained almost the same, with an average of 42.40 years in 1993, 43.23 years in 1999

and 42.49 years in 2004 (Table 4.13). The average age of nontenured nursing faculty when a doctoral degree was granted rose significantly, from 40.40 years to 46.07 years from 1993 to 2004, an increase of about 5.67 years (Table 4.13).

Similar trends were observed between the two-year and four-year subgroups. Those working in two-year institutions were, on average, older than those working in four-year institutions, in general, and the average age when faculty at four-year institutions received doctoral degrees was high and rose slightly, but the average age for faculty at two-year institutions rose drastically higher. The average age for receiving a Doctoral Degree nursing faculty at four-year institutions was 42.03 years in 1993 and 43.49 years in 2004 (Table 4.13). The average age for nursing faculty at two-year institutions to receive Doctoral Degrees was 40.20 in 1993 and 46.00 in 2004 (Table 4.13).

New and senior academic nursing faculty had a gap in ages of receiving doctoral degrees in 1993, with an average difference of 3.88 years (Table 4.13). The gap narrowed to only an average difference of 0.38 years in 2004 (Table 4.13). The average for both subgroups in 2004 was approximately 43 years old (Table 4.13).

While professionalization theory suggests that one should find a decline in the average age of individuals' becoming faculty, and generally achieving their Doctoral Degrees shortly after, a review of the data showed that, overall, the average age of individuals entering the profession of academic nursing faculty at a college or university is on the rise, rather than the decline. Tenured faculty are, on average, older when they began their current positions at the time of the survey, but nontenured faculty were trending slightly younger (Table 4.13). On the average, the faculty working at two-year

institutions were younger than those working at four-year institutions, but the average age for both groups was on the rise from 1993 to 2004 (Table 4.13). During the same period, the average age of senior faculty was younger than the average for new faculty; however, during 1999, the numbers reversed and senior faculty were older (Table 4.13).

In achieving professionalization, one would want to determine if becoming a nursing professor was a chosen career, a goal set early in an individual's career path. NSOPF only collected information regarding previous employment in NSOPF:99 and NSOPF:04, and the data has shown virtually no difference between tenured and nontenured academic nursing faculty based on previous employment experience (Table 4.13). Both groups saw a reduction in the percentage of nursing faculty with previous employment experience, a decline of almost 10% (Table 4.13).

Although the percentage of faculty with previous employment was about the same for both tenured and nontenured subgroups, the makeup of that experience is vastly different. Slightly more than half of the tenured faculty had previous employment experience in hospitals, foundations, or government or military service, while only 21% in 1999 and 28% in 2004 of nontenured faculty had previous employment in these categories (Table 4.13).

Nursing faculty working in two-year institutions were 5% less likely than those working at four-year institutions to have any previous employment experience (Table 4.13). Faculty at both four-year and two-year institutions reported having had previous experience in hospitals, foundations, or government or military services, but more faculty in four-year institutions reported having had previous experience in education. Only 9%

of faculty in two-year institutions reported previous experience in education in 1999, but that percentage rose to 31% in 2004 (Table 4.13).

Between new and senior faculty, there was an 11% gap in the percentage of faculty with previous employment experience in 1999, but in 2004 the gap narrowed to 3%, with almost all nursing faculty reporting previous employment experience (Table 4.13). Of that experience, 69% of new faculty reported previous employment in hospitals, foundations, or government or military services, but only 31% reported experience in these categories in 2004 (Table 4.13). Senior faculty reported roughly the same figures as new faculty in 1999, but also reported previous experience in education, and the figures for those employed in hospitals, foundations, government and military services dropped to 19% in 2004 (Table 4.13).

The professionalization theory holds that, as the nursing profession matures, nursing faculty should become less likely to maintain concurrent employment, as their employment at higher education will become their full-time pursuit¹⁷ (M. Finkelstein, 1989). The data showed an increase in the percentage of tenured academic nursing faculty with concurrent employment, while the percentage of nontenured faculty with concurrent employment actually decreased (Table 4.13). On average, faculty working in two-year institutions were less likely to have concurrent employment than those in four-year institutions (Table 4.13). The percentage of senior faculty with concurrent employment increased from 36% in 1999 to 44% in 2004, while the percentage for new faculty decreased from 53% in 1993 to 49% in 2004 (Table 4.13).

¹⁷ Another consideration is that as an applied discipline, nursing faculty are encourage to remain active in their profession. Due to the nature of the discipline, nursing might never meet the faculty benchmark on concurrent employment.

Summary

This chapter examined the NSOPF variables identified by the professionalization theory. The results showed that the nursing field as a whole progressed positively; however, compared to other academic groups, nursing faculty still need more developmental support. Furthermore, not all experiences of nursing faculty are uniform.

CHAPTER 5. CONCLUSIONS AND IMPLICATIONS

This study examined trends in the professionalization of academic nursing faculty from 1993 to 2004. The objective of this chapter is to discuss the findings in the context of professionalization and previous discussion on the development of the nursing field. In addition, the chapter will provide policy proposals and recommendation for followup research.

Summary and Conclusions

The literature review has illustrated that nursing faculty began with comparatively lower academic credentials than arts and sciences faculty, as well as other professional fields reviewed, and has been steadily working toward matching the standards associated with academic faculty as a whole. Concern arises as the field faces a chronic shortage of practitioners¹⁸. Pressure is building for the existing practitioners to increase production of new members for the field, which in turn leads to a competitive struggle for the limited human resources. The research question that we sought to answer was: How has the external pressure of the nursing shortage affected the professionalization of the nursing field?

The design of the study was based on professionalization theory, which states that as a field progresses professionally, the existing academic faculty assimilates into the professorate as a whole, through adopting characteristics of the established majority. Since there are constant shifts in faculty characteristics, the benchmark used to define the

¹⁸ As stated in Chapter 1, there is a temporary reduction in nursing demand; however, the demand is projected to increase once the economy has recovered.

professorate, for the purpose of this study, was based on the characteristics of arts and sciences faculty, as they are more established and historically represent the majority of the profession. The researcher attempted to measure the professional development of nursing faculty through examining three clusters of faculty characteristics, identified as indicators based on literature review: credentials, faculty workload and employment patterns. Professionalization progression was examined contextually, comparing data for academic nursing faculty with data on faculty in particular subjects and the professorate as a whole, using the National Study of Postsecondary Faculty (NOSPF) datasets from 1993, 1999 and 2004. The researcher also subdivided nursing faculty in three subcategories: senior vs. new, working at two-year institutions vs. four-year institutions, and tenured vs. nontenured, to see if the progression was visible uniformly across the board.

During the time period studied, nursing faculty made considerable progress in improving their academic credentials, the quality and quantity of their scholarly output, and increasing their time spent in research. However, nursing faculty as a whole are getting older and reaching their academic milestones, such as first teaching post, and receiving their doctoral degrees, at a later age. This signifies a shorter academic career cycle for nursing faculty. Nursing faculty are also more likely to have concurrent employment and previous employment outside higher education. This suggests that nursing faculty often have professional careers prior to entering higher education. This is reflective of the preference for hiring faculty with previous and ongoing professional experience. Although necessary, as in any applied field, such hiring preferences take time away from research and other scholarly pursuit.

In a comparison between arts and sciences allied health and professional discipline faculty, the study yielded interesting findings. During the period studied, nursing faculty still lagged behind in all three major categories studied, such as academic credentials, scholarly output and time allocation to research, with the exception of categories in previous employment and concurrent employment. Data analysis found nursing faculty to be more in line with professional field faculty in professionalization characteristics than arts and sciences faculty. The field that was most similar to arts and sciences faculty was allied health faculty.

A review of nursing subgroups found that there were many subdivisions within the field, and that each subgroup was progressing at a measurably different pace through the professionalization process in terms of academic credentials, time allotment and employment patterns, which might signal a fracturing in the academic nursing faculty's self-identity.

Implications for Policy and Practices

This study illustrates that, as an emerging field, nursing has been impacted by the chronic nursing shortage. The phenomenon of the nursing shortage can be addressed by channeling more resources toward addressing the quality and quantity of nursing faculty. A supply of well-prepared nursing faculty can address the bottleneck in the production of new nurses, and present a viable long-term solution to address any future shortage. Based on the study and the literature review, the nursing field can benefit from additional support at the federal, state and institutional levels.

At the federal level, attempts have already been made to address the nursing faculty shortage, such as the Nursing Workforce Development program funded by Title

VIII of the Public Health Service Act of 2008, through which training grants, scholarships or loan forgiveness programs were provided to increase nursing faculty (American Association of Colleges of Nursing, 2009). Although the loan forgiveness program was part of the Nursing Workforce Development Program, the funding level was low. A nationwide student loan forgiveness program similar to the Stafford Teacher Loan Forgiveness program or the Teaching Grant program, which provides financial incentives for anyone who chooses a career in teaching in an underserved area, can induce more nurses to choose teaching careers.

At the state level, there are several state legislative and regulatory changes that can have major impacts on academic nursing faculty's professionalization, especially closing the gap between nursing professor subgroups. Some of the policy recommendations at the state levels include increased state-funded grants and/or scholarships to encourage nurses to return to school to obtain their graduate degrees, speeding up the approval process for new doctoral nursing programs to create more educational opportunities, and creating partnerships with the health care industry to encourage practitioners to serve as academic faculty (Barsky & Zilke, 2002, p. 6; Kimball et al., 2002, p. 6). Examples of programs that provide incentives are the New Jersey Faculty Incentive Loan and Loan Redemption Program, which provide funding for nurses seeking graduate degree programs in exchange for service at public higher education institutions upon graduation (State of New Jersey, 2008). Other recommendations for state support directed specifically for the faculty at two-year institutions, who have been picking up a larger share of the teaching duty, includes introducing a policy to provide

financial support such as scholarships and/or grants to encourage their attaining higher academic credentials, producing scholarly work and participating in research projects.

Partnerships between private foundations or organizations can also direct additional resources into increasing the supply of nursing faculty. A local example is the New Jersey Nursing Initiative, founded by the partnership between Robert Wood Johnson Foundation and the New Jersey Chamber of Commerce Foundation, which has provided funding of 1.3 million dollars to the NJNI Faculty Preparation Program to assist in training of new faculty (Robert Wood Johnson Foundation, 2009).

At the institutional level, colleges and universities need to continue to attract and retain qualified faculty. Some methods, such as public relations campaigns to emphasize the benefits of faculty careers, participation in nursing job fairs, and reaching out to men and other marginalized subgroups. In order to successfully compete with other nursing career options, institutions must compensate their faculty at the market level, the way other professional fields such as business, engineering and medicine have done to attract higher quality faculty (La Rocco, 2006). Perhaps the tenure process must also be reexamined for the nursing faculty, who might benefit from having a longer probationary period leading to the tenure, about the same amount of time required to obtain their Doctoral Degrees.

Support needs to be established for new and nontenured faculty to pick up the lion's share of the teaching load to reduce faculty burnout. Support can take the form of a mentoring program or new faculty seminars. Incentives should be in place to encourage these nurses to work towards obtaining doctoral degrees and tenure status. Funding and sabbatical time should be offered to nursing faculty to produce scholarly

research, and to build meaningful career ladders and help avoid faculty attrition. An increase in funding for teaching and/or research assistantships for graduate students in nursing can also help them to see becoming a member of the academic nursing faculty in a positive light.

Recommendations for Future Research

It was the intention of this study to provide a descriptive overview of the progression in nursing professionalization. Further research is needed to shed additional light on the impact that particular variables have on the professionalization process. This study hypothesized the nursing faculty shortage as a significant environmental factor impacting the data. More studies should be conducted looking at the correlation between nursing shortage, faculty shortage, and the quality of nursing education and the profession, such as an analysis of variance (ANOVA) between academic nursing faculty and other academic faculty, on key professionalization variables such as academic credentials, distribution of workload, or examining the same variance study among subsets of academic nursing faculty.

The review for this study looked at long-term phenomena, so it would be beneficial if the period under study were expanded. A followup study including the NSOPF:88 data set and any future NSOPF surveys would create a greater context for the data and a more complete picture of the development of nursing faculty over time.

The linear descriptive method used in this study provided a general landscape of the professional development of academic nursing faculty. Further study using qualitative methodology would provide a greater ability to pinpoint correlations and

predictors that can better help in providing reasons behind the behavior and/or trends observed in this study.

A study designed specifically for the purpose of understanding the academic nursing professionalization process would also be able to look at all the variables identified in the professionalization theory, overcome NCES' institution sampling limitation, and provide more accurate representation of the nursing discipline. The study can also examine variables that were not covered in the current study, such as professional organization membership or a more in-depth examination of the faculty academic career.

This study looked primarily at the full-time faculty working at four-year institutions. Almost half of the nurses are trained in educational facilities such as community colleges and nursing schools (Beu, 2004). To gain a more comprehensive picture of the nursing faculty's development, further study is needed on nursing subgroups, such as contract or part-time faculty, community college faculty and nursing school faculty.

The disparity in development between allied health and nursing fields also warrants additional study. As a new member of the academic professorate, the allied health professor seems to have been able to catch up with the academic demands of the profession. It would be informative to see how they were able to accomplish that feat, and such understanding can help us apply their success to the nursing faculty.

References

- Abraham, S. Y., Steiger, D. M., Montgomery, M., Kuhr, B. D., Tourangeau, R., Montgomery, B., et al. (2002). 1999 National Study of Postsecondary Faculty (NSOPF:99) Methodology Report. *Education Statistics Quarterly*, 4(3), 150.
- Abraham, S. Y., Steiger, D. M., Montgomery, M., Kuhr, B. D., Tourangeau, R., Montgomery, B., et al. (2002). *National Study of Postsecondary Faculty (NSOPF:99) Methodology Report, 1999. Technical Report.*
- Altbach, P. G., & Finkelstein, M. J. (1997). *The academic profession: Professoriate in crisis* (Vol. 1). New York: Garland Publications.
- American Association of Colleges of Nursing. (2009). *Nursing workforce development programs: Supporting the next generation of nurses and the faculty who educate them.*
- Barsky, L., & Zilke, S. (2002). *Addressing New Mexico's nursing shortage: A statewide strategy framework. Report from the NM Nursing Shortage Statewide Strategy Session (NS4), July-October 2002* (Report - Research No. ED476889). New Meisco: New Mexico Commission on Higher Education. New Mexico University, Albuquerque. Health Science Center.
- Beres, J. (2006). Staff development to university faculty: Reflections of a nurse educator. *Nursing Forum*, 41(3), 141-146.
- Berger, A., Kirshstein, R., Rowe, E., American Institutes for Research in the Behavioral Sciences, W. D. C., & National Center for Education Statistics, W. D. C. (2001). *Institutional Policies and Practices: Results from the 1999 National Study of Postsecondary Faculty (NSOPF:99), Institution Survey. Statistical Analysis Report.*
- Beu, B. (2004). The nursing shortage and the Nurse Reinvestment Act. *Association of Operating Room Nurses, AORN Journal*, 79(5), 1061-1064.
- Bucher, R., & Strauss, A. (1961). Professions in process. *The American Journal of Sociology*, 66, 325-334.

TRENDS IN NURSING PROFESSIONALIZATION 126

- Buerhaus, P. I., Auerbach, D. I., & Staiger, D. O. (2009). The recent surge in nurse employment: Causes and implications. *Health Affairs*, 28(4), w657-w668
- Bureau of Health Professions. (1981). *The registered nurse population, An overview from National Sample Survey of Registered Nurses*. Springfield: National Technical Information Service.
- Bureau of Health Professions. (2002). Projected supply, demand, and shortages of registered nurses: 2000–2020.
- Carnegie Foundation for the Advancement of Teaching. (1994). *A Classification of Institutions of Higher Education*. Princeton.
- Carpenter, D. R., & Hudacek, S. (1996). *On Doctoral Education in Nursing: the voice of the student*. New York: NLN Press.
- Cataldi, E. F., Bradburn, E. M., Fahimi, M., National Center for Education Statistics, W. D. C., Mpr Associates, B. C. A., & Research Triangle Institute, D. N. C. (2005). *2004 National Study of Postsecondary Faculty (NSOPF:04): Background characteristics, work activities, and compensation of instructional faculty and staff, Fall 2003. E.D. TAB. NCES 2006-176*: National Center for Education Statistics.
- Cataldi, E. F., Fahimi, M., Bradburn, E. M., Zimble, L., National Center for Education Statistics, W. D. C., Mpr Associates, B. C. A., et al. (2005). *2004 National Study of Postsecondary Faculty (NSOPF:04) Report on faculty and instructional staff in Fall 2003. E.D. TAB. NCES 2005-172*: US Department of Education.
- Committee for the Study of Nursing Education U.S. (1984). *Nursing and nursing education in the United States*. New York: Garland Publications.
- Conley, V. M., Zimble, L. J., & Synectics for Management Decisions, I. A. V. A. (1997). *Characteristics and attitudes of instructional faculty and staff in the humanities. 1993 National Study of Postsecondary Faculty (NSOPF-93). E.D. Tabs (No. 0-16-049230-0)*.
- D'Antonio, P. (2004). Women, nursing, and baccalaureate education in 20th century America. *Journal of Nursing Scholarship*, 36(4), 379-384.

TRENDS IN NURSING PROFESSIONALIZATION 127

- Dietz, L. D., & Lehozky, A. R. (1967). *History and modern nursing* (2d ed.). Philadelphia: F.A. Davis Co.
- Dressel, P. L., & Mayhew, L. B. (1974). *Higher education as a field of study: The emergence of a profession* (1st ed.). San Francisco: Jossey-Bass.
- Duff, S. (2002). Nurses get funds to ease shortage. *Modern Healthcare*, 32(23), 13.
- Etzioni, A. (1969). *The semi-professions and their organization; Teachers, nurses, social workers*. New York: Free Press.
- Evans, M. (2005). Losing their faculty. *Modern Healthcare*, 35(24), 24-27.
- Faculty shortages in baccalaureate and graduate nursing programs: Scope of the problem and strategies for expanding the supply*. (White paper)(2003). White paper). Washington, DC: American Association of Colleges of Nursing.
- Finkelstein, M. J. (1989). From tutor to specialized scholar: Academic professionalization in eighteenth and nineteenth century America. In L. F. Goodchild & H. S. Wechsler (Eds.), *The History of Higher Education* (second ed., pp. 80). Boston: Pearson Custom Publishing.
- Finkelstein, M. J. (1984). *The american academic profession: A synthesis of social scientific inquiry Since World War II*. Columbus, OH: Ohio State University Press.
- Finkelstein, M. J., Seal, R. K., & Schuster, J. H. (1998). *The New Academic Generation: A Profession in Transformation*. Baltimore: Johns Hopkins University Press.
- Fitzpatrick, M. L. (1983). *Prologue to professionalism: A history of nursing*. Bowie, MD: R.J. Brady Co.
- Freidson, E. (1973). *The Professions and their prospects*. Beverly Hills, CA: Sage Publications.
- Freidson, E. (1994). *Professionalism reborn: Theory, prophecy, and policy*. Chicago: University of Chicago Press.

TRENDS IN NURSING PROFESSIONALIZATION 128

- Goodin, J. (2003). The nursing shortage in the United States of America: An integrative review of the literature. *Journal of Advanced Nursing*, 43(4), 335-343.
- Grace, H. K. (1978). The development of doctoral education in nursing: In historical perspective. *Journal of Nursing Education*, 17(4), 17-27.
- Gray, J. (1960). *Education for nursing; A history of the University of Minnesota School*. Minneapolis: Univ. of Minnesota Press.
- Hart, S. E. (1989). *Doctoral education in nursing: History, process, and outcome*. New York: National League for Nursing.
- Heuer, R., Kuhr, B., Fahimi, M., Curtin, T. R., Hinsdale, M., Carley-Baxter, L., et al. (2006). *2004 National Study of Postsecondary Faculty (NSOPF:04) Methodology Report. Technical Report. NCES 2006-179*: National Center for Education Statistics.
- Heuer, R. E., Cahalan, M., Fahimi, M., Curry-Tucker, J. L., Carley-Baxter, L., Curtin, T. R., et al. (2004). *National Study of Postsecondary Faculty (NSOPF:04) Field Test Methodology Report, 2004. Working Paper Series. NCES 2004-01*: US Department of Education.
- Interagency Collaborative on Nursing Statistics. (2006). Nurses, nursing education, and nursing workforce: Definitions. Retrieved October 4, 2006, from <http://www.iconsdata.org/definitions.htm>
- Jackson, J. A. (1970). *Professions and professionalization*. London: Cambridge University Press.
- Joel, L. A. (2006). *The nursing experience: Trends, challenges, and transitions* (5th ed.). New York: McGraw-Hill, Medical Pub. Division.
- Katz, F. (1969). Nurse. In A. Etzioni (Ed.), *The semi-professions and their organization; teachers, nurses, social workers* (pp. xix, 328 p.). New York,: Free Press.
- Kimball, B., O'Neill, E., & Health Workforce Solutions. (2002). *Health care's human crisis: The American nursing shortage*: Robert Wood Johnson Foundation.

Kirshstein, R. J., Matheson, N., Jing, Z., Zimbler, L. J., & Pelavin Research Institute, W. D. C. (1997). *Instructional faculty and staff in higher education institutions: Fall 1987 and fall 1992. 1993 National Study of Postsecondary Faculty (NSOPF-93). Statistical Analysis Report* (No. 0-16-049231-9).

Kirshstein, R. J., Pelavin Research Inst, W. D. C., et al. (1996). *Institutional policies and practices regarding faculty in higher education. 1993 National Study of Postsecondary Faculty (NSOPF-93). Statistical Analysis Report.*

The knowledge factory: A survey of universities. (1997). *The Economist (London)*, 345(8037).

Krampitz, S. D. (1983). Historical development of baccalaureate nursing education in the American University: 1899-1935. *Western Journal of Nursing Research*, 5(4), 371-380.

LaRocco, S. A. (2006). Who will teach the nurses? *Academe*, 92(3), 38-40.

Larson, M. S. (1977). *The rise of professionalism: A sociological analysis*. Berkeley: University of California Press.

Lewis, F. M. (1976). The Nurse as lackey: A sociological perspective. *Supervisor Nurse*, 7, 24-27.

Lin-Cook, W. (2006). The impact of "inter-generational academic credential gap" has on the hospitality education at the tertiary level. Unpublished Assessment Examine. Seton Hall University.

Lux Et Veritas: History and contributions of the Yale University School of Nursing 1923. (2007, October 21, 2002). Retrieved March, 8, 2007, from <http://www.med.yale.edu/library/nursing/historical/chronology/1923.html>

Lynaugh, J. E. (2002). Nursing's history: Looking backward and seeing forward. In E. D. Baer, P. D'Antonio, S. Rinker & J. E. Lynaugh (Eds.), *Enduring Issues in American Nursing*. New York: Springer Publishing Company.

Martin, E. J. (1989). The doctor of philosophy degree: Evolutionary and societal perspectives. In S. E. Hart (Ed.), *Doctoral Education in Nursing: history, process, and outcome* (pp. vii, 106 p.). New York: National League for Nursing.

- McCaughey, R. A. (1974). The transformation of American academic life: Harvard University 1821-1892. *Perspectives in American History, VIII*.
- Miller, M. H. (1977). Academic inbreeding in nursing. *Nursing Outlook, 25*(3), 172-177.
- Millerson, G. (1964). *The qualifying associations: A study in professionalization*. London: Routledge & Paul; Humanities Press.
- Moore, W. E. (1970). *The professions: Roles and rules*. New York: Russell Sage Foundation.
- National Center for Education Statistics, W. D. C. (1997). *National Study of Postsecondary Faculty. NSOPF:88/93: Public Access Data Analysis System (DAS). [CD-ROM]*.
- National Center for Educational Statistics. (2003-04). NSOPF:2004 National Study of Postsecondary Faculty (Publications. Retrieved October 11, 2006, from National Center for Educational Statistics:
<http://nces.ed.gov/dasol/tables/mainpage.asp?mode=NEW&fileNumber=103>
- National Center for Educational Statistics. (n.d.). Design. Retrieved 10/1, 2006, from <http://nces.ed.gov/surveys/nsopf/design.asp>
- National Council of State Boards of Nursing. (2001). *Annual report 2001*.
- National League for Nursing. (n.d.). Annual Admissions to Basic RN Programs by Program Type: 1981-82 to 1994-95 and 2002-03 to 2006-07. Retrieved 10/8, 2009, from http://www.nln.org/research/slides/pdf/AS0607_01.pdf
- New Jersey Board of Nursing. (2005). *Chapter 7 New Jersey Board of Nursing*. Retrieved 1/23/2010. from <http://www.state.nj.us/lps/ca/laws/nursingregs.pdf>
- New York may require a BSN. (2004). *Nursing, 34*(3), 35-35.
- Nursing shortage prompts new programs. (2006). *Community College Week, 18*(23), 23.

- Palmer, J. C., & National Center for Education Statistics, W. D. C. (2000). *Instructional Faculty and Staff in Public 2-year Colleges. Statistical Analysis Report. 1993 National Study of Postsecondary Faculty (NSOPF:93)*.
- Pavalko, R. M. (1971). *Sociology of occupations and professions*. Itasca, Ill.: F. E. Peacock.
- Perna, L. W. (2001). Sex and race differences in faculty tenure and promotion. *Research in Higher Education*, 42(5), 541-567.
- President's FY 2006 Budget cuts \$1 million from nurse workforce development programs (2005). *New Mexico Nurse*, 50(2), 12.
- Rafferty, C. D., Sperry, L. L., Huffman-Joley, G., & American Association of Colleges for Teacher Education. (1999). *Examining scholarship: A case study in redefining the role of the professoriate*. Washington, DC: AACTE Publications.
- Ray, G. J. (1986). *The integration of nursing in academia: An analysis of academic credentials, employment patterns, and academic activities*. Gonzaga University, Spokane.
- Recession temporarily easing nursing shortage. (2009). *American Nurse*, 41(4), 5.
- Reinkemeyer, S. M. H. A. (1968). A nursing paradox. *Nursing Research*, 17(4).
- Riccobono, J., Siegel, P., Cominole, M., Dudley, K., Charleston, S., Link, M., et al. (2005). *2004 National Postsecondary Student Aid Study (NPSAS:04) Field Test Methodology Report. Working Paper Series. NCES 2005-02*: National Center for Education Statistics.
- Robert Wood Johnson Foundation. (2009). New Jersey nursing initiative. Retrieved January, 4, 2010, from <http://www.rwjf.org/pr/product.jsp?id=44748>
- Rogers, M. E. (1961). *Educational revolution in nursing*. New York: Macmillan Co.
- Rosser, V. J. (2004). Faculty members' intentions to leave: A national study on their worklife and satisfaction. *Research in Higher Education*, 45(3), 285-309.

- Schuster, J. H., & Finkelstein, M. J. (2006). *The American faculty: The restructuring of academic work and careers*. Baltimore, MD: Johns Hopkins University Press.
- Selfa, L. A., Suter, N., Koch, S., Zahs, D. A., Kuhr, B. D., Myers, S., et al. (1997). *National Study of Postsecondary Faculty (NSOPF-93), 1993: User's Manual--Public-Use Faculty and Institution Data*.
- Selfa, L. A., Suter, N., Myers, S., Koch, S., Johnson, R. A., Zahs, D. A., et al. (1997a). *National Study of Postsecondary Faculty (NSOPF-93), 1993: Data File User's Manual--Public-Use Institution File and Restricted-Use Faculty File*.
- Selfa, L. A., Suter, N., Myers, S., Koch, S., Johnson, R. A., Zahs, D. A., et al. (1997b). *National Study of Postsecondary Faculty (NSOPF-93), 1993: Methodology Report*.
- Seton Hall University. (n.d.). Nursing faculty & research. Retrieved 1/23, 2010, from <http://www.shu.edu/academics/nursing/faculty-research.cfm>
- Simms, S. (1977). Nursing's dilemma - The battle for role determination. *Supervisor Nurse*, 8, 29-31.
- Simpson, I. H. (1967). A study of socialization into professions: The case of student nurses. *Sociological Inquiry*, 37(1), 47-54.
- Sofer, D. (2004). Mandatory BSNs? *American Journal of Nursing*, 104(10), 22-22.
- Source Book-Nursing Personnel*. (1981). Hyattsville: US Department of Health and Human Services.
- State of New Jersey. (2008). *Senate Committee Substitute for Senate, No. 626 State of New Jersey 213th Legislature*. Retrieved from http://www.njleg.state.nj.us/2008/Bills/S1000/626_U1.HTM.
- The Carnegie Foundation for the Advancement of Teaching. (2006). Basic classification description. Retrieved October 12, 2006, from <http://www.carnegiefoundation.org/classifications/index.asp?key=791>

- The Committee for the Study of Nursing Education. (1984). *Nursing and nursing education in the United States*. New York: Garland Publishing, Inc.
- 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.
- Thomstad, B., Cunningham, N., & Kaplan, B. H. (1975). Changing the rules of the doctor-nurse game. *Nursing Outlook*, 23(7), 422-427.
- Thrall, T. H. (2008). State bills would require nurses to Earn BAs. *H&HN: Hospitals & Health Networks*, 82(12), 11-12.
- Toutkoushian, R. K., & Bellas, M. L. (2003). The effects of part-time employment and gender on faculty earnings and satisfaction: Evidence from the NSOPF:93. *The Journal of Higher Education*, 74(2), 172-195.
- Tschudin, M. S. (1966). Doctoral preparation in other disciplines with a minor in nursing. *Nursing Forum*, V(2), 50-56.
- Weber, M., Henderson, A. M., & Parsons, T. (1947). *The theory of social and economic organization* (1st American ed.). New York,: Oxford University Press.
- Wilensky, H. L. (1964). The professionalization of everyone? *The American Journal of Sociology*, 70(2), 137-158.
- Zhou, Y., & Volkwein, J. F. (2004). Examining the influences on faculty departure intentions: A comparison of tenured versus nontenured faculty at research universities using NSOPF-99. *Research in Higher Education*, 45(2), 139-176.

Appendix A: Terminology

Terminology

Change. The study looked at nursing faculty changes through time (1993-2004), as examined specifically by institutional types, ranks and employment types.

Field Code. The study based the academic classification of faculty and their degree on their self selection of field codes on NOSPF survey.

*Institution Types.*¹⁹ The study based the institution type on Carnegie institution definition.

New Faculty. Faculty with less than seven years of full-time teaching experience were considered as junior faculty as laid out in Finkelstein's *The New Academic Generation*.

Nursing Faculty. – Individuals defined as respondent who self-declared as having instructional duties with at least some instructional duties are for credits, with a faculty status, and selected field of nursing as their principal field or discipline of teaching.

Nontenure-Track Faculty. Full-time faculty employed in institutions without tenure who are not expected to meet all the teaching, scholarship, service, or other criteria associated with tenure at that institution. Nontenure-track faculty, for example, may not be required to engage in scholarly activities or may have an increased teaching responsibility. In addition, they do not claim any right to permanent or continuous employment at the institution.

Scholarly Activities. – Research, proposal writing, creative writing or creative works (either funded or nonfunded) performed by professors.

Senior Faculty. Faculty with seven years or more of full-time teaching experience were considered as senior faculty as laid out in Finkelstein's The New Academic Generation.

Tenured Faculty. Full-time faculty who have met the teaching, scholarship, service, and other criteria and requirements for tenure, as established by the institution, and have been awarded permanent or continuous employment at that institution.

Tenure-Track Faculty. Full-time faculty in a probationary period of employment, they are not yet tenured. Tenure-track faculty are expected to meet the teaching, scholarship, service, and/or other criteria established by the institution for reappointment and eventual awarding of tenure, but do not claim any right to permanent or continuous employment at that institution.

Nursing Academic Terminology²⁰

Accreditation. Broadly defined as a voluntary, self-regulatory process by which governmental, non-governmental, voluntary associations or other statutory bodies grant formal recognition to programs or institutions that meet stated quality criteria by the achievement of standards identified by a nursing specialty to facilitate the acquisition an advancement of nursing knowledge and to promote

¹⁹The classification of the institutions was taken from Carnegie Foundation for the Advancement of Teaching (The Carnegie Foundation for the Advancement of Teaching, 2006).

²⁰ The nursing academic terminologies were taken from Interagency Collaborative on Nursing statistics(ICONs) on October 1, 2006 (Interagency Collaborative on Nursing Statistics, 2006)

optimal health. Source: American Board of Nursing Specialties, <http://nursingcertification.org/faq.htm#1> (with a modification).

Associate Degree Nursing Program. A program of instruction that requires at least two years of FTE college academic work generally within a junior or community college, the completion of which results in an Associate degree (e.g., AS, AA, AAS, ADN, etc.) with a major in nursing and eligibility to apply for licensure as an RN.

Certification. The formal recognition of the specialized knowledge, skills, and experience demonstrated by the achievement of standards identified by a nursing specialty to promote optimal health outcomes. Source: American Board of Nursing Specialties, <http://nursingcertification.org/faq.htm#1>

Diploma Nursing Program. A program of instruction that requires two to three years of FTE coursework, usually within a hospital-based structural unit, the completion of which results in a diploma or certificate of completion and eligibility to apply for licensure as an RN.

Generic (Basic or Entry-Level) Baccalaureate Nursing Program. A program of instruction to prepare registered nurses that admits students with no previous nursing education, the completion of which results in a baccalaureate degree (e.g., BA, BS, BSN, etc.) with a major in nursing and eligibility to apply for licensure as an RN. The program requires at least four years but not more than five years of FTE college academic work within in a senior college or university.

Institutional Accreditation[for nursing academics]. A nongovernmental process that is concerned with the quality and integrity of the total institution, assessing

the achievement of the institution in meeting its own stated mission, goal, and expected outcomes.

Source: <http://www.aacn.nche.edu/Accreditation/NewStandards.htm>

Professional or Specialized Accreditation. A nongovernmental process that is concerned with programs of study in professional or occupational fields and assesses the extent to which programs achieve their stated mission, goals, and expected outcomes. In addition, consideration of the program's mission, goals, and expected outcomes is of importance in determining the quality of the program and the educational preparation of members of the profession. Source:

<http://www.aacn.nche.edu/Accreditation/NewStandards.htm>

Appendix B: Appendix Tables²¹

TABLE B01. HIGHEST DEGREE EARNED (PERCENTAGE).....	141
TABLE B02. DOCTORAL DEGREE STATUS WHEN FIRST RECEIVED TEACHING OR INSTRUCTION POSITION (PERCENTAGE).....	142
TABLE B03. DISCIPLINE TYPES OF DOCTORAL DEGREES EARNED (PERCENTAGE).....	143
TABLE B04. CAREER PUBLICATIONSS (AVERAGE).....	144
TABLE B05. RECENT PUBLICATIONSS (AVERAGE).....	145
TABLE B06. CAREER PUBLICATIONS (PERCENTAGE).....	146
TABLE B07. CURRENT PUBLICATIONS (PERCENTAGE).....	147
TABLE B08. PARTICIPATION IN SCHOLARLY ACTIVITIES (PERCENTAGE).....	148
TABLE B09. RESEARCH TYPE (PERCENTAGE).....	149
TABLE B10. RESEARCH TYPE (PERCENTAGE).....	150
TABLE B11. FUNDED RESEARCH (PERCENTAGE).....	151
TABLE B12. BREAKDOWN OF TIME SPENT ON DIFFERENT WORK TASK WEEKLY (AVERAGE PERCENTAGE).....	152
TABLE B13. COURSES TAUGHT BY FACULTY WEEKLY (AVERAGE).....	153
TABLE B14. REGULAR OFFICE HOURS WEEKLY (AVERAGE).....	154
TABLE B15. CONTACT HOURS WITH THE STUDENT WEEKLY (AVERAGE).....	155
TABLE B16. COMMITTEE PARTICIPATED WEEKLY (PERCENTAGE).....	156
TABLE B17. AGE OF FACULTY WHEN FACULTY STARTED CURRENT TEACHING OR INSTRUCTION POSITION (AVERAGE).....	157
TABLE B18. AGE WHEN DOCTORAL DEGREE GRANTED (AVERAGE).....	158
TABLE B19. AGE WHEN BECAME FULL-TIME FACULTY (AVERAGE).....	159
TABLE B20. INSTITUTION SALARY AS PART OF YOUR OVERALL INCOME (AVERAGE PERCENTAGE).....	160
TABLE B21. PAID/UNPAID INSTITUTION/OUTSIDE INSTITUTION EMPLOYMENT (PERCENTAGE).....	161
TABLE B22. PREVIOUS EMPLOYMENT EXPERIENCE (PERCENTAGE).....	162
TABLE B23. TYPES OF PREVIOUS EMPLOYMENT EXPERIENCE (PERCENTAGE).....	163
TABLE B24. CONCURRENT EMPLOYMENT (PERCENTAGE).....	164
TABLE B25. FACULTY SATISFACTION REGARDING THEIR INSTITUTION DUTY (AVERAGE)	165
TABLE B26. FACULTY SATISFACTION REGARDING THEIR JOB (AVERAGE).....	166
TABLE B27. NURSING FACULTY WITH DOCTORAL DEGREE – TENURED VS. NONTENURED (PERCENTAGE).....	167
TABLE B28. DISCIPLINE TYPES OF DOCTORAL DEGREE EARNED- TENURED VS. NONTENURED (PERCENTAGE).....	168
TABLE B29. NURSING FACULTY WITH DOCTORAL DEGREE – 4 YEARS VS. 2 YEARS (PERCENTAGE).....	169

²¹ The tables are modeled after Schuster & Finkelstein (Schuster & Finkelstein, 2006) contained data from NSOPF:93, 99 and 04. Unless otherwise noted, faculty criteria for inclusion in the table are faculty who self-classified as faculty and working full-time in four-year institutions during the year of the survey.

TRENDS IN NURSING PROFESSIONALIZATION 139

TABLE B30. DISCIPLINE TYPES OF DOCTORAL DEGREE EARNED – 4 YEARS VS. 2 YEARS (PERCENTAGE).....	170
TABLE B31. NURSING FACULTY WITH DOCTORAL DEGREE – NEW VS. SENIOR (PERCENTAGE).....	171
TABLE B32. DISCIPLINE TYPES OF DOCTORAL DEGREE EARNED BY NURSING FACULTY – NEW VS. SENIOR (PERCENTAGE).....	172
TABLE B33. CAREER PUBLICATIONS – TENURED VS. NONTENURED (AVERAGE).....	173
TABLE B34. PARTICIPATE IN SCHOLARLY ACTIVITIES – TENURED VS. NONTENURED (PERCENTAGE).....	174
TABLE B35. NURSING FACULTY PARTICIPATION IN FUNDED RESEARCH – TENURED VS. NONTENURED (PERCENTAGE).....	175
TABLE B36. RESEARCH TYPE – TENURED VS. NONTENURED (PERCENTAGE).....	176
TABLE B37. CAREER PUBLICATIONS – 4 YEARS VS. 2 YEARS (AVERAGE).....	177
TABLE B38. PARTICIPATION IN SCHOLARLY ACTIVITIES- 4 YEARS VS. 2 YEARS (PERCENTAGE).....	178
TABLE B39. NURSING FACULTY PARTICIPATION IN FUNDED RESEARCH – 4 YEARS VS. 2 YEARS (PERCENTAGE).....	179
TABLE B40. RESEARCH TYPE – 4 YEARS VS. 2 YEARS (PERCENTAGE).....	180
TABLE B41. CAREER PUBLICATIONS – NEW VS. SENIOR (AVERAGE).....	181
TABLE B42. NURSING FACULTY PARTICIPATION IN SCHOLARLY ACTIVITIES – NEW VS. SENIOR (PERCENTAGE).....	182
TABLE B43. NURSING FACULTY PARTICIPATION IN FUNDED RESEARCH – NEW VS. SENIOR (PERCENTAGE).....	183
TABLE B44. RESEARCH TYPE – NEW VS. SENIOR (PERCENTAGE).....	184
TABLE B45. TIME NURSING FACULTY SPENT ON TEACHING WEEKLY – TENURED VS. NONTENURED (PERCENTAGE).....	185
TABLE B46. TIME NURSING FACULTY SPENT ON RESEARCH WEEKLY – TENURED VS. NONTENURED (PERCENTAGE).....	186
TABLE B47. TIME NURSING FACULTY SPENT ON TEACHING WEEKLY – 4 YEARS VS. 2 YEARS (PERCENTAGE).....	187
TABLE B48. TIME NURSING FACULTY SPENT ON RESEARCH WEEKLY – 4 YEARS VS. 2 YEARS (PERCENTAGE).....	188
TABLE B49. TIME NURSING FACULTY SPENT ON TEACHING WEEKLY – NEW VS. SENIOR (PERCENTAGE).....	189
TABLE B50. TIME NURSING FACULTY SPENT ON RESEARCH WEEKLY – NEW VS. SENIOR (PERCENTAGE).....	190
TABLE B51. AGE OF NURSING FACULTY – TENURED VS. NONTENURED (AVERAGE).....	191
TABLE B 52. AGE OF NURSING FACULTY – 4 YEARS VS. 2 YEARS (AVERAGE).....	192
TABLE B53. AGE OF NURSING FACULTY – NEW VS. SENIOR (AVERAGE).....	193
TABLE B 54. AGE NURSING FACULTY RECEIVED DOCTORAL DEGREE – TENURED VS. NONTENURED (AVERAGE).....	194
TABLE B55. AGE NURSING FACULTY RECEIVED DOCTORAL DEGREE – 4 YEARS VS. 2 YEARS (AVERAGE).....	195
TABLE B56. AGE NURSING FACULTY RECEIVED DOCTORAL DEGREE – NEW VS. SENIOR (AVERAGE).....	196

TRENDS IN NURSING PROFESSIONALIZATION 140

TABLE B57. AGE OF NURSING FACULTY WHEN FACULTY STARTED CURRENT TEACHING OR INSTRUCTION POSITION – TENURED VS. NONTENURED (AVERAGE)	197
TABLE B58. AGE OF NURSING FACULTY WHEN FACULTY STARTED CURRENT TEACHING OR INSTRUCTION POSITION – 4 YEARS VS. 2 YEARS (AVERAGE).....	198
TABLE B59. AGE OF NURSING FACULTY WHEN FACULTY STARTED CURRENT TEACHING OR INSTRUCTION POSITION – NEW VS. SENIOR (AVERAGE)	199
TABLE B60. PREVIOUS EMPLOYMENT EXPERIENCE FOR NURSING FACULTY – TENURED VS. NONTENURED (AVERAGE)	200
TABLE B61. NURSING FACULTY’S PREVIOUS EMPLOYMENT EXPERIENCE – TENURED VS. NONTENURED (PERCENTAGE).....	201
TABLE B62. PREVIOUS EMPLOYMENT EXPERIENCE FOR NURSING FACULTY – 4 YEARS VS. 2 YEARS (AVERAGE)	202
TABLE B63. NURSING FACULTY’S PREVIOUS EMPLOYMENT EXPERIENCE – 4 YEARS VS. 2 YEARS (PERCENTAGE).....	203
TABLE B64. PREVIOUS EMPLOYMENT EXPERIENCE – NEW VS. SENIOR (AVERAGE).....	204
TABLE B65. TYPE OF NURSING FACULTY’S PREVIOUS EMPLOYMENT EXPERIENCE – NEW VS. SENIOR (AVERAGE PERCENTAGE).....	205
TABLE B66. CONCURRENT EMPLOYMENT – TENURED VS. NONTENURED (PERCENTAGE)	206
TABLE B67. CONCURRENT EMPLOYMENT – 4 YEARS VS. 2 YEARS (PERCENTAGE)	207
TABLE B68. CONCURRENT EMPLOYMENT – NEW VS. SENIOR (PERCENTAGE).....	208

Table B01. Highest Degree Earned (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>N</i>	9,839	8,524	12,492	4,197	3,507	5,243	409	369	614	276	313	562	389	295	330
Doctoral degree	0.67	0.72	0.74	0.82	0.86	0.90	0.72	0.71	0.73	0.48	0.55	0.40	0.70	0.51	0.50
First-Professional Degree	0.08	0.06	0.06	0.03	0.02	0.01	0.05	0.02	0.01	0.14	0.16	0.44	0.27	0.02	0.02
Master degree	0.23	0.20	0.18	0.13	0.11	0.08	0.22	0.25	0.25	0.32	0.24	0.13	0.02	0.46	0.46
Bachelors degree	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.04	0.02	0.00	0.00	0.02
AA or equivalent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Certificate or diploma for completion of undergraduate program (not Bach Degree or AA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No degree/ skip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

¹ Due to rounding, some columns might not have cumulative percentage of 100.

NSOPF: 93 dataset has one additional category, "Certificate, diploma, or degree for completion of undergraduate program of more than 2 years but less than 4 years in length".

Table B02. Doctoral Degree Status When First Received Teaching or Instruction Position (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	-	6,149	9,303	-	3,019	4,708	-	263	448	-	172	225	-	151	165
Completed doctoral before first PSE job	-	0.44	0.36	-	0.42	0.32	-	0.50	0.48	-	0.43	0.25	-	0.87	0.85
Completed doctorate after first PSE job	-	0.56	0.64	-	0.58	0.68	-	0.50	0.52	-	0.57	0.75	-	0.13	0.15

¹ NOSPF: 93 questionnaire did not have any question related to the when faculty's first postsecondary position.

Table B03. Discipline Types of Doctoral Degrees Earned (Percentage)

	All faculty		Arts & Sciences		Professional Fields		Allied Health		Nursing						
	1993	2004	1993	2004	1993	2004	1993	2004	1993	2004					
<i>n</i>	6,597	6,149	9,303	3,459	3,019	4,708	293	263	448	132	172	225	106	151	165
Agriculture & home economics	0.02	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.01	0.06	0.02	0.00	0.02	0.01	0.01
Business	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00
Education	0.13	0.13	0.10	0.02	0.03	0.01	0.76	0.68	0.67	0.11	0.15	0.08	0.40	0.34	0.26
Engineering	0.06	0.07	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.00
Fine art	0.04	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00
Health science	0.03	0.05	0.04	0.00	0.01	0.01	0.00	0.01	0.00	0.52	0.49	0.56	0.49	0.53	0.58
Humanities	0.20	0.16	0.17	0.35	0.30	0.31	0.02	0.03	0.03	0.00	0.00	0.03	0.00	0.01	0.01
Natural science	0.25	0.25	0.28	0.31	0.33	0.36	0.01	0.03	0.00	0.14	0.13	0.15	0.00	0.01	0.02
Social science	0.18	0.17	0.17	0.29	0.28	0.27	0.04	0.10	0.07	0.11	0.11	0.13	0.08	0.07	0.10
All other programs	0.05	0.06	0.06	0.01	0.03	0.02	0.15	0.14	0.19	0.06	0.06	0.02	0.01	0.01	0.02

Table B04. Career Publications (Average)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Total	59.99	78.09	81.75	53.03	75.19	78.60	50.22	61.52	62.43	59.53	84.90	108.98	17.65	51.42	40.64
Articles, refereed journals	11.89	18.23	18.16	14.72	20.88	21.85	4.64	6.72	7.17	14.17	22.71	28.51	1.87	8.28	5.65
Articles, nonrefereed journals	5.79	8.14	8.79	4.95	7.02	8.21	5.12	5.69	5.82	6.28	6.65	8.95	1.83	4.36	4.18
Book reviews, chapters, and creative works	4.25	4.69	4.66	6.11	6.50	6.23	3.08	2.28	2.05	2.64	3.96	5.83	1.23	3.05	1.94
Book, textbooks, and report	6.01	3.04	2.84	5.60	2.77	2.64	4.52	2.81	2.21	6.41	2.87	3.28	2.03	1.80	1.62
Career presentations and performance	31.43	43.57	46.93	21.16	37.68	39.34	32.44	43.85	45.07	29.46	48.33	62.07	10.57	33.60	27.17
Career patents, computer software	0.61	0.43	0.37	0.49	0.34	0.33	0.43	0.17	0.10	0.57	0.38	0.34	0.13	0.33	0.08

¹ NSOPF: 93 has fourteen categories and NSOPF: 04 has seven categories for career publications which were merged into six categories used in NSOPF: 99 for cross-lateral comparison.

Table B05. Recent Publications (Average)¹

	All faculty		Arts & Sciences		Professional Fields		Allied Health		Nursing						
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004			
Total	9.60	22.12	10.77	8.55	20.96	10.38	9.16	23.41	9.19	10.50	24.13	15.52	4.84	17.74	6.26
Articles, refereed journals	1.92	4.56	2.49	2.13	5.02	2.88	1.00	2.99	1.257	2.35	5.24	4.36	0.56	2.58	1.10
Articles, nonrefereed journals	0.99	2.50	1.18	0.82	2.18	1.08	1.02	2.43	0.972	1.03	2.24	1.36	0.58	2.04	0.71
Book reviews, chapters, and creative works	0.83	1.51	0.86	1.07	1.98	1.11	0.68	1.06	0.459	0.68	1.19	1.09	0.38	1.26	0.55
Book, textbooks, and report	1.13	1.16	0.52	1.03	1.04	0.49	1.13	1.40	0.516	1.28	1.15	0.62	0.70	1.10	0.39
Career presentations and performance	4.58	12.20	5.63	3.37	10.59	4.74	5.21	15.44	5.933	5.01	14.13	8.01	2.59	10.65	3.47
Career patents, computer software	0.15	0.18	0.10	0.13	0.15	0.09	0.11	0.09	0.047	0.16	0.18	0.09	0.03	0.11	0.04

¹ NSOPF: 93 has fourteen categories and NSOPF: 04 has seven categories for recent publications which were merged into six categories used in NSOPF: 99 for cross-lateral comparison.

Table B06. Career Publications (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Articles, refereed journals	0.20	0.23	0.22	0.28	0.28	0.28	0.09	0.11	0.11	0.24	0.27	0.26	0.11	0.16	0.14
Articles, nonrefereed journals	0.10	0.10	0.11	0.09	0.09	0.10	0.10	0.09	0.09	0.11	0.08	0.08	0.10	0.08	0.10
Book reviews, chapters, and creative works	0.07	0.06	0.06	0.12	0.09	0.08	0.06	0.04	0.03	0.04	0.05	0.05	0.07	0.06	0.05
Book, textbooks, and report	0.10	0.04	0.03	0.11	0.04	0.03	0.09	0.05	0.04	0.11	0.03	0.03	0.12	0.04	0.04
Career presentations and performance	0.52	0.56	0.57	0.40	0.50	0.50	0.65	0.71	0.72	0.49	0.57	0.57	0.60	0.65	0.67
Career patents, computer software	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00

¹ NSOPF: 93 has fourteen categories and NSOPF: 04 has seven categories for career publications which were merged into six categories used in NSOPF: 99 for cross-lateral comparison.

Table B07. Current Publications (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Articles, refereed journals	0.20	0.23	0.23	0.25	0.24	0.28	0.11	0.13	0.14	0.22	0.22	0.28	0.12	0.15	0.18
Articles, nonrefereed journals	0.10	0.10	0.11	0.10	0.10	0.10	0.11	0.10	0.11	0.10	0.09	0.09	0.12	0.12	0.11
Book reviews, chapters, and creative works	0.09	0.06	0.08	0.13	0.09	0.11	0.07	0.05	0.05	0.06	0.05	0.07	0.08	0.07	0.09
Book, textbooks, and report	0.12	0.04	0.05	0.12	0.05	0.05	0.12	0.06	0.06	0.12	0.05	0.04	0.14	0.06	0.06
Career presentations and performance	0.48	0.56	0.52	0.39	0.51	0.46	0.57	0.66	0.65	0.48	0.59	0.52	0.53	0.60	0.56
Career patents, computer software	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.01

¹ NSOPF: 93 has fourteen categories and NSOPF: 04 has seven categories for current publications which were merged into six categories used in NSOPF: 99 for cross-lateral comparison.

Table B08. Participation in Scholarly Activities (Percentage)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	9,839	8,524	12,492	4,197	3,508	5,243	409	369	614	276	313	562	389	295	330
Yes	0.77	0.78	0.78	0.82	0.83	0.83	0.68	0.75	0.71	0.70	0.67	0.80	0.56	0.65	0.62
No	0.23	0.22	0.22	0.18	0.17	0.17	0.32	0.25	0.29	0.30	0.33	0.20	0.44	0.35	0.38

Table B09. Research Type (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	7,569	6,679	9,742	3,431	2,909	4,363	277	276	431	194	243	448	219	193	203
Basic research	0.34	0.47	0.52	0.47	0.64	0.67	0.12	0.25	0.32	0.25	0.33	0.37	0.09	0.21	0.32
Applied or policy-oriented research or analysis	0.36	0.27	0.23	0.25	0.17	0.15	0.41	0.33	0.30	0.54	0.46	0.38	0.50	0.41	0.31
Literary, performance, or exhibitions	0.14	0.10	0.08	0.17	0.09	0.06	0.08	0.05	0.05	0.04	0.01	0.01	0.05	0.02	0.01
Program/curriculum design & development	0.10	0.13	0.12	0.07	0.09	0.09	0.32	0.34	0.27	0.10	0.16	0.17	0.21	0.27	0.22
Other	0.06	0.03	0.05	0.04	0.01	0.03	0.06	0.04	0.07	0.08	0.05	0.08	0.15	0.09	0.14

¹ NSOPF: 99 categories number 5-10 were merged into category of "Other" to uniform with NSOPF: 04 categories. NSOPF: 93 categories number 2 and 3 were merged into one category to be uniform with NSOPF: 04 categories.

Table B10. Research Type (Percentage)¹

	All faculty		Arts & Sciences		Professional Fields		Allied Health		Nursing						
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004			
<i>n</i>	5,312	4,940	7,283	2,473	2,343	3,572	147	158	265	152	190	333	128	120	127
<i>Basic vs. Applied</i>															
Basic research	0.49	0.63	0.69	0.65	0.79	0.82	0.23	0.43	0.51	0.32	0.42	0.49	0.15	0.34	0.51
Applied research	0.51	0.37	0.31	0.35	0.21	0.18	0.77	0.57	0.49	0.68	0.58	0.51	0.85	0.66	0.49

¹ NSOPF: 99's category on "Basic Research" includes those who identify their study as basic research and as both basic and applied research.

Table B11. Funded Research (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	7,569	6,679	9,742	3,431	2,909	4,363	277	276	434	194	243	448	219	193	203
Yes	0.38	0.55	0.49	0.37	0.53	0.52	0.33	0.49	0.39	0.59	0.67	0.67	0.26	0.56	0.43
No	0.62	0.45	0.51	0.63	0.47	0.48	0.67	0.51	0.61	0.41	0.33	0.33	0.74	0.44	0.57

¹ NSOPF: 93 Funded Research Question included only those who provided answers to Q29: How would you describe your primary professional research, writing, or creative work during the 1992 fall term?. The researcher manually filtered NOSPF:99 and NOSPF:04 result as these two studies did not have same filter.

Table B12. Breakdown of Time Spent on Different Work Task Weekly (Average Percentage)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	9,839	8,524	12,492	4,197	3,507	5,243	409	369	614	276	313	562	389	295	330
Teaching	0.59	0.55	0.58	0.59	0.61	0.57	0.66	0.59	0.65	0.55	0.48	0.39	0.73	0.61	0.71
Research	0.20	0.19	0.23	0.22	0.22	0.26	0.12	0.12	0.14	0.21	0.20	0.33	0.07	0.09	0.11
Other tasks	0.21	0.26	0.19	0.18	0.25	0.17	0.22	0.30	0.21	0.24	0.32	0.28	0.21	0.30	0.19

Table B13. Courses Taught by Faculty Weekly (Average)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Courses	2.93	3.06	2.47	2.87	2.95	2.41	3.56	3.26	2.87	2.88	3.07	1.83	2.74	3.22	2.45

Table B14. Regular Office Hours Weekly (Average)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Hours	7.44	6.17	5.81	6.60	5.47	5.06	8.39	7.38	7.49	8.31	6.49	5.67	7.39	5.66	6.74

Table B15. Contact Hours with the Student Weekly (Average)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Hours	4.97	2.77	2.33	4.61	2.60	2.13	5.39	3.28	3.43	5.24	3.03	2.09	4.35	2.94	2.67

Table B16. Committee Participated Weekly (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	9,839	8,524	12,492	4,197	3,507	5,243	409	369	614	276	313	562	389	295	330
No committee responsibilities	0.54	0.39	0.11	0.49	0.36	0.12	0.52	0.37	0.07	0.55	0.38	0.14	0.74	0.48	0.07
With committee responsibilities	0.46	0.61	0.89	0.51	0.64	0.88	0.48	0.63	0.93	0.45	0.62	0.86	0.26	0.52	0.93

¹ NSOPF: 04 only asked about the number of hours of committee work. We assumed that those who answered "committee responsibilities" were "zero" meant that there were no hours spent in committees.

Table B17. Age of Faculty When Faculty Started Current Teaching or Instruction Position (Average)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Age	36.45	41.67	38.00	35.69	41.13	36.92	39.52	44.27	42.20	36.73	42.04	39.02	40.06	45.41	43.06

Table B18. Age When Doctoral Degree Granted (Average)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Age	33.28	33.28	33.52	32.41	32.21	32.26	37.87	37.96	39.44	33.62	34.10	33.21	42.03	42.89	43.39

Table B19. Age When Became Full-Time Faculty (Average)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Age	45.46	49.13	49.58	44.78	49.19	49.39	43.44	50.33	51.46	47.53	48.44	49.14	45.42	51.34	52.54

TRENDS IN NURSING PROFESSIONALIZATION 160

Table B20. Institution Salary as Part of Your Overall Income (Average Percentage)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
Compensation from this institution	0.92	0.92	0.91	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.90	0.89	0.90	0.91	0.90

Table B21. Paid/Unpaid Institution/Outside Institution Employment (Percentage)

	All faculty		Arts & Sciences		Professional Fields		Allied Health		Nursing				
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	
Paid institution	0.81	0.88	0.86	0.83	0.90	0.88	0.76	0.84	0.83	0.86	0.80	0.86	0.84
Unpaid institution	0.10	0.05	0.07	0.10	0.05	0.07	0.13	0.07	0.08	0.05	0.10	0.05	0.07
Paid outside institution	0.05	0.04	0.04	0.04	0.03	0.03	0.04	0.05	0.04	0.06	0.06	0.05	0.05
Unpaid outside institution	0.04	0.03	0.04	0.03	0.03	0.03	0.06	0.05	0.05	0.03	0.04	0.03	0.04

Table B22. Previous Employment Experience (Percentage)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	-	8,524	12,492	-	3,507	5,243	-	369	614	-	313	562	-	295	330
No previous experience	-	0.19	0.12	-	0.22	0.14	-	0.08	0.04	-	0.00	0.00	-	0.00	0.00
With previous experience	-	0.81	0.88	-	0.78	0.86	-	0.92	0.96	-	1.00	1.00	-	1.00	1.00

Table B23. Types of Previous Employment Experience (Percentage)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	-	8,524	12,492	-	3,507	5,243	-	369	614	-	313	562	-	295	330
No previous employment	-	0.19	0.12	-	0.22	0.14	-	0.08	0.04	-	0.15	0.16	-	0.03	0.02
Education institutions	-	0.52	0.62	-	0.57	0.67	-	0.50	0.76	-	0.43	0.44	-	0.41	0.47
Hospital, foundation, government, or military	-	0.12	0.11	-	0.09	0.10	-	0.14	0.13	-	0.29	0.20	-	0.49	0.22
For profit	-	0.08	0.11	-	0.05	0.09	-	0.02	0.03	-	0.06	0.09	-	0.02	0.12
Others	-	0.08	0.04	-	0.06	0.03	-	0.02	0.18	-	0.06	0.11	-	0.04	0.04

¹ NSOPF: 99 dataset has separated previous educational experience by institutional types, which the researcher merged into one category labeled "Education Institutions" for cross-lateral comparison.

Table B24. Concurrent Employment (Percentage)

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	9,839	8,524	12,492	4,197	3,507	5,243	409	369	614	276	313	562	389	295	330
Yes	0.33	0.34	0.33	0.27	0.27	0.27	0.39	0.45	0.38	0.37	0.39	0.43	0.42	0.43	0.44
No	0.67	0.66	0.67	0.73	0.73	0.73	0.61	0.55	0.62	0.63	0.61	0.57	0.58	0.57	0.56

Table B25. Faculty Satisfaction Regarding Their Institution Duty (Average)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	6,381	2,696	12,115	2,712	945	5,127	303	212	609	156	191	536	192	192	325
The authority I have to make decisions about content and methods in the courses I teach	3.70	3.40	3.75	3.74	3.38	3.77	3.72	3.64	3.75	3.65	3.56	3.68	3.44	3.48	3.67
The authority I have to make decisions about other (non-instructional) aspects of my job	3.23	2.90	-	3.30	2.83	-	3.28	3.22	-	3.13	3.18	-	2.91	2.89	-
The authority I have to make decisions about what courses I teach	2.99	2.58	-	3.03	2.52	-	3.00	2.76	-	2.94	2.91	-	2.87	2.71	-
Time available for working with students as an advisor, mentor, etc.	3.07	2.72	-	3.11	2.71	-	3.05	2.75	-	2.90	2.84	-	2.79	2.84	-
Quality of undergraduate students whom I have taught here	2.82	2.59	-	2.76	2.47	-	3.02	2.87	-	2.97	2.85	-	3.10	2.88	-
Quality of graduate students whom I have taught here	2.99	2.84	-	2.93	2.72	-	3.22	3.11	-	3.17	3.10	-	3.17	3.20	-

¹ Rating for faculty satisfaction is on the scale of 1-4, with 1 as being very dissatisfied and 4 is very satisfied. Only faculty who answered all the questions were included in the table.

Table B26. Faculty Satisfaction Regarding Their Job (Average)¹

	All faculty			Arts & Sciences			Professional Fields			Allied Health			Nursing		
	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004	1993	1999	2004
<i>n</i>	9,839	6,333	12,492	4,197	2,562	5,243	409	330	614	276	289	562	389	281	330
My workload	2.81	2.67	-	2.77	2.64	-	2.88	2.73	-	2.78	2.87	-	2.75	2.68	-
My job security	3.15	3.14	-	3.22	3.13	-	3.26	3.22	-	3.08	3.22	-	3.04	3.12	-
Opportunity for advancement in rank at this institution	2.89	2.80	-	2.96	2.82	-	2.95	2.87	-	2.78	2.88	-	2.64	2.77	-
Time available for keeping current in my field	2.42	2.35	-	2.38	2.30	-	2.45	2.33	-	2.45	2.66	-	2.35	2.46	-
Freedom to do outside consulting	3.06	3.09	2.97	3.08	3.08	2.95	3.11	3.21	2.94	3.00	3.17	2.99	2.85	3.02	2.92
My salary	2.39	2.35	2.64	2.40	2.31	2.64	2.39	2.41	2.56	2.36	2.51	2.88	2.18	2.37	2.46
My benefit, generally	2.88	2.89	3.04	2.87	2.84	3.02	2.94	2.96	3.02	2.99	3.10	3.28	2.87	3.00	3.09
My job here, overall	3.09	3.01	3.25	3.07	2.98	3.24	3.23	3.13	3.29	3.05	3.17	3.35	3.05	3.09	3.25

¹ Rating for faculty satisfaction is on the scale of 1-4, with 1 as being very dissatisfied and 4 is very satisfied. Only faculty who answered all the questions were included in the table.

Table B27. Nursing Faculty with Doctoral Degree – Tenured vs. Nontenured (Percentage)¹

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	268	183	180	79	94	116
Without doctoral degree	0.66	0.32	0.29	0.87	0.83	0.77
With doctoral degree	0.34	0.68	0.71	0.13	0.17	0.23

¹ "Tenured" means "Tenure or tenure track"; "Nontenured" means "Nontenured track".
 "Nontenured track" does not include faculty in institutions with no tenure system.

Table B28. Discipline Types of doctoral degree Earned- Tenured vs. Nontenured (Percentage)¹

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	91	124	128	10	16	27
Agriculture & home economics	0.01	0.02	0.01	0.10	0.00	0.04
Business	0.00	0.01	0.00	0.00	0.00	0.00
Education	0.40	0.33	0.24	0.50	0.38	0.19
Engineering	0.00	0.00	0.00	0.00	0.00	0.00
Fine art	0.00	0.00	0.00	0.00	0.00	0.00
Health science	0.52	0.52	0.59	0.30	0.56	0.63
Humanities	0.00	0.01	0.00	0.00	0.00	0.00
Natural science	0.00	0.02	0.03	0.00	0.00	0.00
Social science	0.07	0.08	0.10	0.10	0.06	0.15
All other programs	0.01	0.02	0.02	0.00	0.00	0.00

¹ Due to rounding, some columns might not have cumulative percentage of 100.

Table B29. Nursing Faculty With Doctoral Degree – 4 years vs. 2 years (Percentage)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	389	295	330	364	169	166
Without doctoral degree	0.73	0.49	0.50	0.97	0.94	0.94
With doctoral degree	0.27	0.51	0.50	0.03	0.06	0.06

Table B30. Discipline Types of Doctoral Degree Earned – 4 years vs. 2 years (Percentage)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	106	151	165	10	10	10
Agriculture & home economics	0.02	0.01	0.00	0.00	0.00	0.00
Business	0.00	0.01	0.00	0.00	0.00	0.00
Education	0.40	0.34	0.26	0.50	0.30	0.70
Engineering	0.00	0.00	0.00	0.00	0.00	0.00
Fine art	0.00	0.00	0.00	0.00	0.00	0.00
Health science	0.49	0.53	0.58	0.40	0.70	0.20
Humanities	0.00	0.01	0.01	0.00	0.00	0.00
Natural science	0.00	0.01	0.02	0.10	0.00	0.00
Social science	0.09	0.07	0.10	0.00	0.00	0.10
All other programs	0.01	0.01	0.02	0.00	0.00	0.00

Table B31. Nursing Faculty With Doctoral Degree – New vs. Senior (Percentage)

	New		Senior	
	1993	1999	1993	1999
<i>n</i>	135	54	254	241
		72		245
Without doctoral degree	0.86	0.81	0.74	0.41
With doctoral degree	0.14	0.19	0.26	0.59

Table B32. Discipline Types of Doctoral Degree Earned by Nursing Faculty – New vs. Senior (Percentage)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	19	10	19	87	141	145
Agriculture & home economics	0.00	0.00	0.00	0.02	0.01	0.01
Business	0.00	0.00	0.00	0.00	0.01	0.00
Education	0.26	0.20	0.16	0.43	0.35	0.28
Engineering	0.00	0.00	0.00	0.00	0.00	0.00
Fine art	0.00	0.00	0.00	0.00	0.00	0.00
Health science	0.68	0.60	0.74	0.45	0.52	0.55
Humanities	0.00	0.00	0.00	0.00	0.01	0.01
Natural science	0.00	0.00	0.05	0.00	0.00	0.02
Social science	0.05	0.10	0.05	0.09	0.07	0.11
All other programs	0.00	0.10	0.00	0.01	0.01	0.02

Table B33. Career Publications – Tenured vs. Nontenured (Average)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>N</i>	268	183	180	79	94	116
<i>Total Publications</i>	18.76	61.85	53.57	15.06	27.81	19.27
Articles, refereed journals	2.12	10.70	8.48	1.14	4.10	2.45
Articles, nonrefereed journals	2.02	5.49	6.11	1.56	2.35	1.84
Book reviews, chapters, and creative works	1.59	3.97	2.40	0.32	1.27	1.22
Book, textbooks, and report	2.06	2.35	2.10	1.63	0.83	0.79
Career presentations and performance	10.81	39.01	34.38	10.39	19.05	12.89
Career patents, computer software	0.17	0.33	0.10	0.03	0.21	0.07

Table B34. Participate in Scholarly Activities – Tenured vs. Nontenured (Percentage)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	268	183	180	79	94	116
With scholarly activities	0.57	0.77	0.73	0.58	0.43	0.51
Without scholarly activities	0.43	0.23	0.27	0.42	0.57	0.49

Table B35. Nursing Faculty Participation in Funded Research – Tenured vs. Nontenured (Percentage)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	152	183	180	46	94	116
Participated	0.28	0.44	0.39	0.13	0.21	0.11
Not participated	0.72	0.56	0.61	0.87	0.79	0.89

Table B36. Research Type – Tenured vs. Nontenured (Percentage)¹

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	152	141	131	46	40	59
Basic research	0.05	0.21	0.32	0.17	0.25	0.31
Applied or policy-oriented research or analysis	0.54	0.49	0.40	0.41	0.13	0.17
Literary, performance, or exhibitions	0.07	0.01	0.00	0.02	0.03	0.02
Program/curriculum design & development	0.19	0.21	0.15	0.22	0.50	0.34
Other	0.15	0.08	0.13	0.17	0.10	0.17

¹ NSOPF: 99 categories numbers 5-10 were merged into category of "Other" to be uniform with NSOPF: 04 categories. NSOPF: 93 categories numbers 2 and 3 were merged into one category to be uniform with NSOPF: 04 categories.

Table B37. Career Publications – 4 years vs. 2 years (Average)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	389	295	330	364	169	166
<i>Total Publications</i>	17.59	51.42	40.52	8.40	12.83	10.53
Articles, refereed journals	1.74	8.28	5.63	0.47	0.33	0.95
Articles, Nonrefereed journals	1.01	4.36	4.16	0.32	1.44	1.03
Book reviews, chapters, and creative works	1.60	3.05	1.94	1.43	0.63	0.75
Book, textbooks, and report	2.61	1.80	1.62	1.23	0.60	0.68
Career presentations and performance	10.57	33.60	27.09	4.92	9.76	7.07
Career patents, computer software	0.13	0.33	0.08	0.04	0.07	0.05

Table B38. Participation in Scholarly Activities- 4 years vs. 2 years (Percentage)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	389	295	330	364	169	166
With scholarly activities	0.56	0.65	0.62	0.23	0.25	0.22
Without scholarly activities	0.44	0.35	0.38	0.77	0.75	0.78

Table B39. Nursing Faculty Participation in Funded Research – 4 years vs. 2 years (Percentage)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	85	151	163	6	10	10
Participated	0.36	0.50	0.47	0.33	0.30	0.10
Not participated	0.64	0.50	0.53	0.67	0.70	0.90

Table B40. Research Type – 4 years vs. 2 years (Percentage)¹

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	219	193	203	85	43	36
Basic research	0.09	0.21	0.32	0.13	0.09	0.33
Applied or policy-oriented research or analysis	0.50	0.41	0.31	0.24	0.19	0.17
Literary, performance, or exhibitions	0.05	0.02	0.01	0.02	0.00	0.03
Program/curriculum design & development	0.21	0.27	0.22	0.42	0.65	0.36
Other	0.15	0.09	0.14	0.19	0.07	0.11

¹ NSOPF: 99 categories numbers 5-10 were merged into category of "Other" to be uniform with NSOPF: 04 categories. NSOPF: 93 categories numbers 2 and 3 were merged into one category to be uniform with NSOPF: 04 categories.

Table B41. Career Publications – New vs. Senior (Average)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	135	54	72	254	241	246
Total publication	14.50	45.59	18.83	19.23	52.73	48.65
Articles, refereed journals	1.41	6.98	2.43	1.92	8.57	6.83
Articles, nonrefereed journals	0.77	3.31	2.71	1.13	4.60	4.79
Book reviews, chapters, and creative works	1.67	2.17	0.56	1.56	3.24	2.43
Book, textbooks, and report	2.16	0.61	0.99	2.85	2.07	1.86
Career presentations and performance	8.48	32.30	12.13	11.68	33.89	32.64
Career patents, computer software	0.10	0.22	0.03	0.14	0.35	0.10

Table B42. Nursing Faculty Participation in Scholarly Activities – New vs. Senior (Percentage)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	135	54	72	254	241	246
Participated	0.51	0.50	0.51	0.59	0.69	0.67
Not participated	0.49	0.50	0.49	0.41	0.31	0.33

Table B43. Nursing Faculty Participation in Funded Research – New vs. Senior (Percentage)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	69	54	72	150	241	246
Participated	0.26	0.22	0.21	0.25	0.40	0.30
Not participated	0.74	0.78	0.79	0.75	0.60	0.70

Table B44. Research Type – New vs. Senior (Percentage)¹

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	69	27	37	150	166	165
Basic research	0.09	0.30	0.35	0.09	0.20	0.32
Applied or policy-oriented research or analysis	0.52	0.37	0.24	0.49	0.42	0.32
Literary, performance, or exhibitions	0.07	0.00	0.00	0.05	0.02	0.02
Program/Curriculum design & development	0.22	0.19	0.24	0.21	0.29	0.21
Other	0.10	0.15	0.16	0.17	0.08	0.13

¹ NSOPF: 99 categories numbers 5-10 were merged into category of "Other" to be uniform with NSOPF: 04 categories. NSOPF: 93 categories numbers 2 and 3 were merged into one category to be uniform with NSOPF: 04 categories.

Table B45. Time Nursing Faculty Spent on Teaching Weekly – Tenured vs. Nontenured (Percentage)

	Tenured		Nontenured			
	1993	1999	2004	1993	1999	2004
<i>n</i>	268	183	180	79	94	116
%	71.50	56.68	62.97	75.15	69.37	79.86

Table B46. Time Nursing Faculty Spent on Research Weekly -- Tenured vs. Nontenured (Percentage)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>N</i>	268	183	180	79	94	116
%	7.49	11.00	15.04	5.48	6.56	6.67

Table B47. Time Nursing Faculty Spent on Teaching Weekly – 4 years vs. 2 years (Percentage)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>N</i>	389	295	330	364	169	167
%	72.55	61.23	70.51	78.54	77.78	82.02

Table B48. Time Nursing Faculty Spent on Research Weekly – 4 years vs. 2 years (Percentage)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>N</i>	389	295	330	364	169	167
%	6.77	8.73	10.91	3.28	1.88	1.41

Table B49. Time Nursing Faculty Spent on Teaching Weekly – New vs. Senior (Percentage)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>N</i>	135	54	72	254	241	246
%	73.77	67.48	76.43	71.90	59.83	67.55

Table B50. Time Nursing Faculty Spent on Research Weekly – New vs. Senior (Percentage)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>N</i>	135	54	72	254	241	246
%	5.48	5.35	9.51	7.46	9.49	11.80

Table B51. Age of Nursing Faculty – Tenured vs. Nontenured (Average)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	268	183	180	79	94	116
Age	48.62	52.57	53.44	44.75	49.02	50.36

Table B 52. Age of Nursing Faculty – 4 years vs. 2 years (Average)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	389	306	295	364	162	169
Age	47.12	50.30	50.88	47.58	51.34	52.38

Table B53. Age of Nursing Faculty – New vs. Senior (Average)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	135	54	72	254	241	246
Age	43.85	45.41	47.11	49.56	52.66	54.03

Table B 54. Age Nursing Faculty Received Doctoral Degree – Tenured vs. Nontenured (Average)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	91	124	128	10	16	27
Age	42.40	43.23	42.49	40.40	41.56	46.07

Table B55. Age Nursing Faculty Received Doctoral Degree – 4 years vs. 2 years (Average)

	4 years		2 years			
	1993	1999	2004	1993	1999	2004
<i>n</i>	106	151	165	10	10	10
Age	42.03	42.89	43.39	40.20	40.50	46.00

Table B56. Age Nursing Faculty Received Doctoral Degree – New vs. Senior (Average)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	19	10	19	87	141	145
Age	38.84	42.80	43.05	42.72	42.90	43.43

Table B57. Age of Nursing Faculty When Faculty Started Current Teaching or Instruction Position – Tenured vs. Nontenured (Average)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>N</i>	268	183	180	79	94	116
Age	40.14	46.00	41.91	39.71	44.62	37.59

Table B58. Age of Nursing Faculty When Faculty Started Current Teaching or Instruction Position – 4 years vs. 2 years (Average)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	389	295	330	364	159	167
Age	40.06	45.41	43.06	38.18	42.60	40.95

Table B59. Age of Nursing Faculty When Faculty Started Current Teaching or Instruction Position – New vs. Senior (Average)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	135	54	72	254	241	246
Age	40.77	42.37	43.31	39.68	46.10	42.96

Table B60. Previous Employment Experience for Nursing Faculty – Tenured vs. Nontenured (Average)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	-	183	180	-	94	116
No	-	0.04	0.16	-	0.04	0.15
Yes	-	0.96	0.84	-	0.96	0.85

Table B61. Nursing Faculty's Previous Employment Experience – Tenured vs. Nontenured (Percentage)

	Tenured		Nontenured	
	1993	1999	1993	1999
<i>n</i>	-	183	-	94
Education institutions	-	0.40	-	0.54
For Profit	-	0.03	-	0.08
Hospital, foundation, gov't or military	-	0.50	-	0.21
No previous	-	0.03	-	0
Others	-	0.04	-	0.17
		180		116

Table B62. Previous Employment Experience for Nursing Faculty – 4 years vs. 2 years (Average)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	-	295	330	-	169	167
No	-	0.04	0.16	-	0.11	0.20
Yes	-	0.96	0.84	-	0.89	0.80

Table B63. Nursing Faculty's Previous Employment Experience – 4 years vs. 2 years (Percentage)

	4 years		2 years			
	1993	1999	2004	1993	1999	2004
<i>n</i>	-	295	330	-	169	167
Education institutions	-	0.41	0.47	-	0.09	0.31
For profit	-	0.02	0.12	-	0.31	0.02
Hospital, foundation, gov't or military	-	0.49	0.22	-	0.49	0.53
No previous	-	0.03	0.02	-	0.04	0.08
Others	-	0.04	0.18	-	0.07	0.05

Table B64. Previous Employment Experience – New vs. Senior (Average)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	-	54	72	-	241	246
No	-	0.11	0.04	-	0.02	0.01
Yes	-	0.89	0.96	-	0.98	0.99

Table B65. Type of Nursing Faculty's Previous Employment Experience – New vs. Senior (Average Percentage)

	New		Senior			
	1993	2004	1993	2004		
<i>n</i>	-	54	72	241	246	
Education institutions	-	0.13	0.31	-	0.47	0.53
For profit	-	0	0.18	-	0.03	0.09
Hospital, foundation, gov't or military	-	0.69	0.31	-	0.45	0.19
No previous	-	0.11	0.04	-	0.02	0.01
Others	-	0.07	0.17	-	0.04	0.17

Table B66. Concurrent Employment – Tenured vs. Nontenured (Percentage)

	Tenured			Nontenured		
	1993	1999	2004	1993	1999	2004
<i>n</i>	268	183	180	79	94	116
No	0.59	0.60	0.54	0.52	0.50	0.59
Yes	0.41	0.40	0.46	0.48	0.50	0.41

Table B67. Concurrent Employment – 4 years vs. 2 years (Percentage)

	4 years			2 years		
	1993	1999	2004	1993	1999	2004
<i>n</i>	389	295	330	364	169	167
No	0.58	0.57	0.56	0.68	0.70	0.65
Yes	0.42	0.43	0.44	0.32	0.30	0.35

Table B68. Concurrent Employment – New vs. Senior (Percentage)

	New			Senior		
	1993	1999	2004	1993	1999	2004
<i>n</i>	135	54	72	254	241	246
No	0.47	0.54	0.51	0.64	0.58	0.56
Yes	0.53	0.46	0.49	0.36	0.42	0.44

Appendix C: Faculty selections

All Faculty. Faculty who had self-identified as being faculty and employed full-time in the institution.

Nursing Faculty. Full-time faculty who has indicated nursing as their primary area of teaching.

Year	1993	1999	2004
Major Code	Nursing (335)	Nursing (335)	Nursing (1511)

Allied Health Science faculty. Those full-time faculty who indicated the following major as their primary area of teaching:

Year	1993	1999	2004
	Allied Health Technologies & Services (331)	Allied Health Technologies & Services (331)	Allied health and medical assisting services (1508)
			Allied health diagnostic, intervention, treatment professions (1509)
	Health Services Administration (333)	Health Services Administration (333)	Health & Medical administrative services (1506)
	Public Health (337)	Public Health (337)	Public Health (1516)
	Other Health Sciences (340)	Other Health Sciences (340)	Health/related clinical services, other (1519)
Major Code			

TRENDS IN NURSING PROFESSIONALIZATION 210

Professional Faculty. Full-time faculty who has indicated in NSOPF having the following majors as their primary area of teaching:

Year	1993	1999	2004
Major Code	Pre-Elementary (241)	Pre-Elementary (241)	Early Childhood Education and teaching (1007)
	Elementary (242)	Elementary (242)	Elementary Education and teaching (1008)
	Secondary (243)	Secondary (243)	Secondary education and teaching (1009)
	Adult & Continuing (244)	Adult & Continuing (244)	Adult and continuing education/teaching (1010)
	Other General Teacher Ed. Program (245)	Other General Teacher Ed. Program (245)	Teacher ed: specific levels, other (1011)
	Teacher Education in Specific Subjects (250)	Teacher Education in Specific Subjects (250)	Teacher ed: specific subject area (1012)
	Public Affairs (520)	Public Affairs (520)	Bilingual & multicultural education (1013)
			Public administration (2701)
			Social work (2702)
			Public administration & social svcs other (2703)

Art and Sciences faculty. Full-time faculty who indicated in NSOPF having the following majors as their primary area of teaching:

Year	1993	1999	2004
Major Code	English, General (291)	English, General (291)	English language and literature/letters (1201)
	Composition & Creative writing (292)	Composition & Creative writing (292)	
	American Literature (293)	American Literature (293)	
	English Literature (294)	English Literature (294)	

TRENDS IN NURSING PROFESSIONALIZATION 211

Linguistics (295)	Linguistics (295)	
Speech, Debate & Forensics (296)	Speech, Debate & Forensics (296)	
English as Second Language (297)	English as Second Language (297)	
English, Other (300)	English, Other (300)	
Chinese (Mandarin, Cantonese, or other Chinese) (311)	Chinese (Mandarin, Cantonese, or other Chinese) (311)	Foreign languages/literature/letters (1401)
French (312)	French (312)	
German (313)	German (313)	
Italian (314)	Italian (314)	
Latin (315)	Latin (315)	
Japanese (316)	Japanese (316)	
Other Asian (317)	Other Asian (317)	
Russian or other Salvi (318)	Russian or other Salvi (318)	
Spanish (319)	Spanish (319)	
Other Foreign Languages (320)	Other Foreign Languages (320)	
Biochemistry (391)	Biochemistry (391)	Biochem/biophysics/molecular biology (0501)
Biology (392)	Biology (392)	
Botany (393)	Botany (393)	Botany/plant biology (0502)
Genetics (394)	Genetics (394)	Genetics (0503)
Immunology (395)	Immunology (395)	
Microbiology (396)	Microbiology (396)	Microbiological science & immunology (0504)
Physiology (397)	Physiology (397)	Physiology, Pathology & related sciences (0505)
Zoology (398)	Zoology (398)	Zoology/animal biology (0506)
Biological Sciences, Other (400)	Biological Sciences, Other (400)	Biological & biomedical sciences, other (0507)
Astronomy (411)	Astronomy (411)	Astronomy & astrophysics (2501)

TRENDS IN NURSING PROFESSIONALIZATION 212

		Atmospheric sciences and meteorology (2502)
Chemistry (412)	Chemistry (412)	Chemistry (2503)
Physics (413)	Physics (413)	Physics (2505)
Earth, Atmosphere, and Oceanographic (Geological Sciences) (414)	Earth, Atmosphere, and Oceanographic (Geological Sciences) (414)	Geological & earth sciences/geosciences (2504)
Physical Sciences, Other (420)	Physical Sciences, Other (420)	Physical sciences, Other (2506)
Philosophy (440)	Philosophy (440)	Philosophy (2401)
Religion (441)	Religion (441)	Religion/religious studies (2402)
Theology (442)	Theology (442)	Theology and religious vocations (2403)
Psychology (510)	Psychology (510)	Psychology, other (2604)
		Behavioral psychology (2601)
		Clinical psychology (2602)
		Education/School psychology (2603)
Social Sciences, General (541)	Social Sciences, General (541)	
Anthropology (542)	Anthropology (542)	Anthropology (except psychology) (3001)
Archeology (543)	Archeology (543)	Archeology (3002)
Area & Ethnic Studies (544)	Area & Ethnic Studies (544)	
Demography (545)	Demography (545)	Demography & population studies (3004)
Economics (546)	Economics (546)	Economics (3005)
Geography (547)	Geography (547)	Geography & Cartography (3006)
History (548)	History (548)	History (3007)
International Relations (549)	International Relations (549)	International relations & affairs (3008)
Political Science & Government (550)	Political Science & Government (550)	Political science and government (3009)

TRENDS IN NURSING PROFESSIONALIZATION 213

		Urban studies/affairs (3011)
Sociology (551)	Sociology (551)	Sociology (3010)
Other Social Sciences (560)	Other Social Sciences (560)	Social Sciences, other (3012)